



# **2017 NRPA Annual Conference**

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## **Abstracts from the 2017 NRPA Research Sessions**

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# Preface

## 2017 NRPA National Research Sessions

With the National Recreation and Park Association (NRPA) pillars of Health and Wellness, Conservation, and Social Equity in mind, we welcome you to the 40th year of the National Recreation and Park Association hosting of research presentations in conjunction with its Annual Conference. As changes have occurred throughout the decades, so has growth. The former Leisure Research Symposium has been converted to the National Research Sessions to reflect both the focus of NRPA as well as the development of the Academy of Leisure Sciences (TALS). The National Research Sessions are now a meeting place to better connect research with the needs and interests of colleagues on the ground in the field of national/state/municipal parks, non-profit and commercial recreation, public land management, and recreational sports. These instituted changes are a continued result of collaborative discussions between NRPA, NRPA Education Network, and TALS leadership, as well as the acknowledgement of other international and domestic professional associations linked to the various other areas of leisure research.

Change is never easy, continued change may create discomfort, and change with criticism is rarely enjoyable. But change is important. And social change in the spirit of the three pillars is necessary. This 40<sup>th</sup> year, and subsequent years will hopefully reflect a greater appreciation and understanding of the role of NRPA NRS alongside other professional and academic gatherings in the United States, North America, and abroad.

In response to these changes and a call for abstracts, we received 44 abstracts for review, including 2 panel presentations. Of those, 17 oral paper presentations and 8 posters are included in this year's sessions. All of the abstracts have maintained a blind peer review in their process towards acceptance. The oral presentations will take place at various points over the next two days during 75-minute thematic sessions of Health & Quality of Life, Gender & Recreation, Youth & Family, and Administration & Programming.

The 2017 NRPA Research Sessions commence on Wednesday, September 27<sup>th</sup>, with the Butler Lecture at 2:30 pm. Similar to last year, we are bringing back a panel-type event with a highly regarded researcher, Dr. John Dattilo, and knowledgeable professional, Mr. Mark Splidoro, in the field of inclusion and disability in recreation. Their address is entitled "*Inclusion and Recreation: From Theory to Practice.*" Oral presentations for the 2017 Research Sessions will be on Thursday, September 28<sup>th</sup>, from 9:45 am to 4:40 pm with the poster sessions scheduled for Wednesday, September 27<sup>th</sup> from 12 – 2 pm. Overall, the presentations represent an impressive intellectual diversity and scholarly depth. The moderators have been asked to facilitate Q & A between presenters and attendees at the end of each session; please plan to attend the entire session to engage in thoughtful discourse.

The organization of the NRPA National Research Sessions is a collaborative effort. Our thanks go to the review coordinators, reviewers, and our NRPA staff liaison, Tom Crosley, who has been once again invaluable in the process, and to Dr. Katherine Broughton for coordinating the poster session. We also extend our thanks to the presenters for sharing their work and the moderators for facilitating the sessions.

**Rasul Mowatt and Shu Cole**

2017 NRPA Research Sessions Co-Chairs

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## RECREATION AND INCLUSION: FROM THEORY TO PRACTICE

John Dattilo, Professor  
Department of Recreation, Park, and Tourism Management  
Penn State University

Mark Spolidoro, Director of Camp Shriver  
Center for Social Development and Education  
University of Massachusetts Boston

We will identify actions promoting positive attitudes that reduce barriers to inclusive leisure services by guiding attendees to be ethical, celebrate inclusion, uphold human-civil rights and legislation, and promote leisure engagement. The presentation describes factors influencing opportunities to experience leisure including culture, economic resources, age, abilities, and families. The session discusses strategies and provides examples of how to provide inclusive leisure services.



Dr. John Dattilo is Professor of Recreation, Park, and Tourism Management at Penn State University where he teaches from an applied, philosophical, and ethical perspective. He is author of several editions of *Inclusive Leisure Services* and *Leisure Education Program Planning* and co-author of *Facilitation Techniques in Therapeutic Recreation* and *Application of Behavior Analysis in Leisure Contexts*. Over the past 35 years, he collaborated with interdisciplinary teams to conduct research with the hope of providing a forum for people experiencing oppression to share their voices and gain insight into ways to assist them in addressing barriers to their leisure so they are empowered to experience enjoyment and meaning in their lives.



Mr. Spolidoro has been an adapted physical education teacher for 25 years in the Boston Public School system, where he has been the driving force in implementing inclusion in the physical education program district wide. Mark further strengthens the Boston Public Schools' commitment to inclusion in his role as the BPS coordinator for Special Olympics Massachusetts Unified Sports for the past 16 years. Additionally, for the past decade, Mark has been implementing inclusive recreational programs as a staff member at the Center for Social Development and Education where he serves as the Director of Camp Shriver at the University of Massachusetts Boston and Co-Director of Saturday Camp at the Edgerley Family South Boston Boys & Girls Club.

## **RESTORATIVE EFFECTS OF URBAN VEGETATION: A VIRTUAL REALITY APPLICATION**

Perver K. Baran, North Carolina State University

Payam Tabrizian, North Carolina State University

A growing body of evidence suggests that experience of nature, in various forms, has therapeutic effects on human's cognitive and affective processes. In particular, research has shown that contact with nature leads to improvements in mood (Tyrväinen et al., 2014), cognitive recovery (Kaplan, 1995; Laumann, Gärling, & Stormark, 2003), and stress recovery (Jiang, Chang, & Sullivan, 2014; Roe et al., 2013; Van den Berg et al. 2010). However, since it is not known which specific green space attributes support these effects, the empirical evidence has limited potential for translating those findings to practice (Hunter & Askarinejad, 2015) and for providing guidance for decision-making. This study examined how spatial arrangement (number of enclosed sides of a square shaped area) and tree density (number of trees on each side), achieved through vegetation/tree arrangement, affect individuals' perceived restorativeness in urban plaza and urban park settings using Virtual Reality (VR) stimuli.

Research on landscape perceptions has utilized a variety of methods. While taking participants to a site for on-site experience provides high external and ecological validity, this method is relatively difficult and expensive to employ (Nasar, 2008). Consequently, researchers have utilized photographs and videos to simulate experiencing a landscape. However, these methods have several shortcomings, including limited mundane and psychological realism (Smith, 2015). VR can address these shortcomings, since by continuously streaming visual information through a headset they can elicit a high degree of immersion and presence (Milgram, Takemura, Utsumi, & Kishino, 1994); namely, a person experiencing a VR stimuli can feel physically present in the environment being studied. VR displayed through a headset enables respondents to view all facets of an environment (e.g., rearview, overhead) (Naceri, Chellali, Dionnet, & Toma, 2010) making it particularly relevant for studying enclosed spaces, such as spaces enclosed by vegetation. In this study participants experienced VR stimuli through a head-mounted display device, Oculus Rift.

### **Methods**

Ninety undergraduate students participated in the study. Participants' study background varied; the largest group included students majoring in Parks, Recreation and Tourism Management (47%), followed by students majoring in Sport Management (25%), and others (28%). One real-plaza environment and one real-park environment captured from Raleigh, NC, were the starting point for generating the study stimuli. For both settings, an array of 54 images (9 images in the row, 6 images in column) were acquired using a digital SLR camera fitted within a GigaPan EPIC Pro robotic controller. Images were taken in December 2015 at noontime under cloudy condition to minimize the shading effect. The images were then stitched together to create full 360° panoramas. We manipulated the two 360o panoramas to generate 18 stimuli that varied in degree of spatial arrangement (1-, 2-, and 4-sided), tree density of (1, 3, 6 trees coupled with understory vegetation per side) and setting type (urban plaza and urban park). Finally, the virtual environments were rendered and displayed into head-mounted display (HMD; Oculus Rift Dk2) device.

Using a 3 x 3 x 2 mixed factorial design (Figure 1) participants were randomly assigned to three experimental groups based on tree density levels. Within each group, participants experienced six VRs, including three spatial arrangement levels by two setting types. A modified version of Perceived Restorativeness Scale, PRS, (Hartig et al. 1996) was used to measure perceived restorativeness dimensions, including being away, fascination, and coherence. Participants

experienced VRs for 40 seconds each, and using a joystick controller rated six PRS on-screen statements randomly displayed in HMD device. Participants rated their agreement with each statement on a 7-point scale (1 = not at all, 7 = completely). In addition to descriptive statistics, a three-factor mixed-design ANOVA analysis was performed to compare the main effects of tree density (between-subject factor: 1, 3, 6 trees), spatial arrangement (within-subjects factor: 1-, 2-, 4-sided), and setting type (within-subjects factor: plaza, park), on each perceived restorativeness dimensions, as well as to test for interaction effects among the three factors.

### **Results**

Descriptive analysis indicated that the average perceived restorativeness ratings were higher for the park setting, than the ratings for the plaza setting. Across all environments, the highest perceived restorativeness was attributed to 2-sided low-density arrangement in park setting; whereas the lowest perceived restorativeness corresponded to 1-sided medium-density arrangement in plaza setting. Results of the ANOVA models indicated the main effect of spatial arrangement on each dimension of perceived restorativeness was significant: being away,  $F = 6.09$ ,  $p < .01$ ; fascination,  $F = 5.74$ ,  $p < .01$ ; and coherence,  $F = 3.84$ ,  $p < .05$ . The results also revealed a significant main effect of setting type on two dimensions of perceived restorativeness: being away,  $F = 77.08$ ,  $p < .001$ ; and coherence,  $F = 76.18$ ,  $p < .001$ . For overall restorativeness, the analysis showed that there is significant interaction between spatial framing and setting type,  $F = 22.77$ ,  $p < .001$ .

### **Discussion**

In general, the study results are consistent with the expectation that higher levels of enclosure achieved through vegetation arrangement in open space would be regarded as more restorative, than the low enclosed arrangements (Hauru, Lehvävirta, Korpela, & Kotze, 2012; Nordh & Østby, 2013). The significant effect of setting type on overall restoration judgment supports past studies, wherein people perceived the natural scenes as more restorative than the built scenes (Nordh, Hartig, Hagerhall, & Fry, 2009; Nordh and Østby, 2013). The results also imply higher levels of enclosure in plaza setting are regarded as more restorative; whereas, in park setting level of spatial arrangement does not play role in restoration judgments. The findings suggest that spatial arrangement may differently influence perceived restorativeness in each setting type.

### **Implications for Practice**

Overall, the results suggest that the design of urban green space can play a significant role in affecting perceptions regarding possibilities for restoration. The study findings provide valuable insights for urban green space planning and management. As cities are becoming increasingly densified understanding how to maximize the impact of limited green space can be of critical importance. In addition, the approach utilized in the study provides opportunities to manipulate environmental stimuli to assess the effect of various green space attributes and design elements on people's perceptions.

Perver K. Baran, Center for Geospatial Analytics, North Carolina State University, (919)513-2373, [perver\\_baran@ncsu.edu](mailto:perver_baran@ncsu.edu)

# Figures

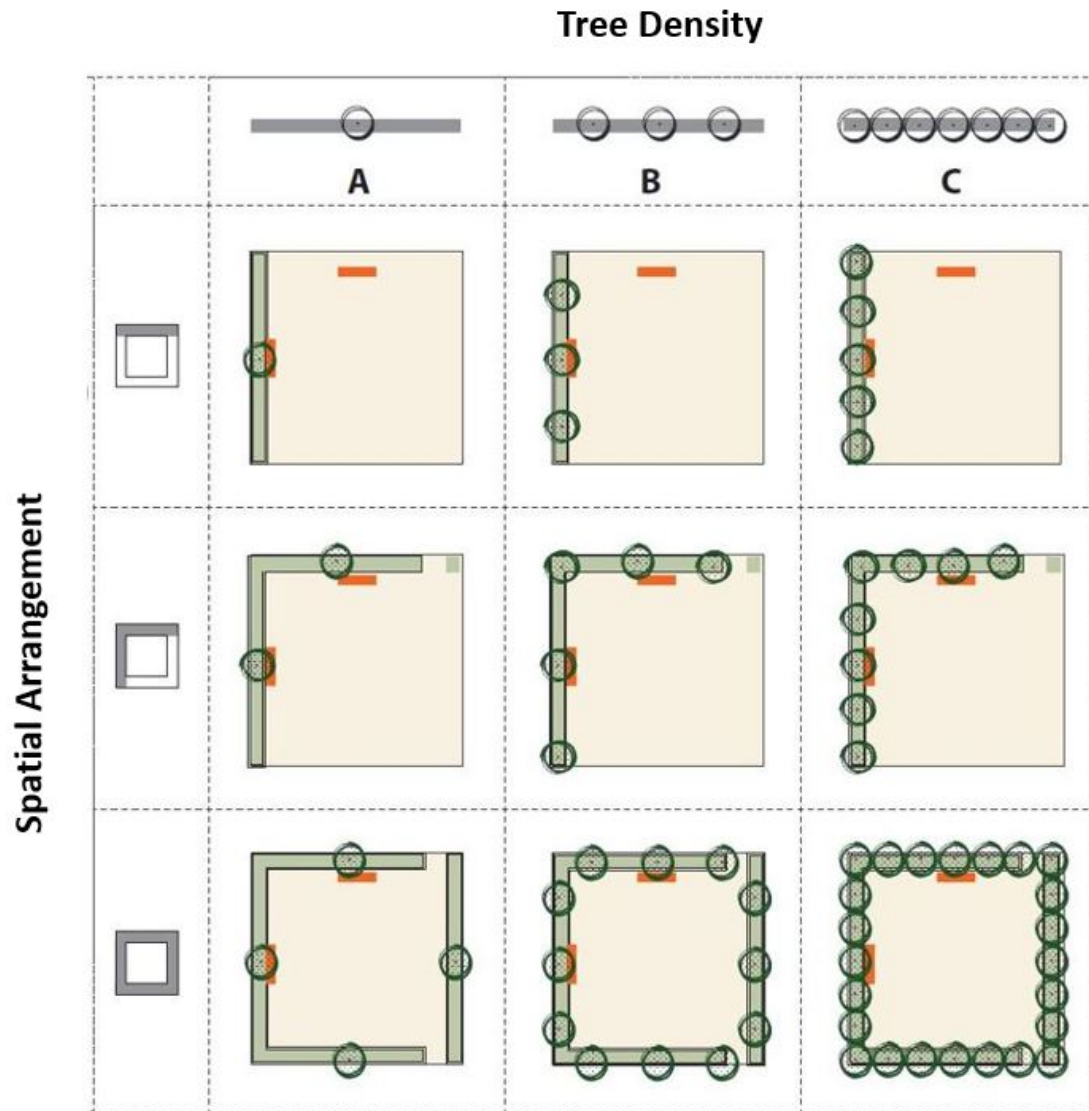


Figure 1. Experimental design matrix: Vegetation arrangement variations based on spatial arrangement and tree density.

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# **ENGAGING YOUTH THROUGH HIGH QUALITY PROGRAMMING TO PROMOTE OUTCOME ACHIEVEMENT**

Troy Bennett, University of Utah

## **Introduction**

Programs for youth can be intentionally designed and implemented in order to increase the achievement of important developmental outcomes. When the intentional design for a program is based on previous research related to a desired outcome, then that outcome is more likely to be achieved (Wells & Arthur-Banning, 2008). An intentional design can include examples of best practices that are typically employed by programs attaining high levels of outcome achievement. The ability of a program to implement these best practices in their field is often expressed in terms of program quality. Higher levels of program quality have been shown to lead to increased outcomes for youth (Garst, Browne & Bialeschki, 2011; Smith et al, 2009).

Characteristics of high quality programs include factors such as the performance and behavior of program staff; youth feeling a sense of belonging and developing self-efficacy; youth having opportunities for active learning and the acquisition of new skills; and youth having the ability to make decisions, develop a sense of independence, and have a voice (Akiva, 2010; Collins et al., 2012; Larson, Eccles, & Gootman, 2004; Larson et al., 2009; Sibthorp, Paisley, & Gookin, 2007). In order to more intentionally design programs for youth, there is a need to better understand how different characteristics of high quality programs relate to the achievement of specific outcomes.

Within the context of summer camps, characteristics of high quality programs have been developed from research conducted in afterschool settings (Akiva, 2010). The American Camp Association has utilized characteristics of camp program quality to create a model of high quality best practices (David P. Weikart Center for Youth Program Quality, 2011). High quality best practices are grouped into domains informing both program implementation and program design.

Positive youth development programs are premised on the idea that youth have the potential to achieve important developmental outcomes through engagement in intentionally designed program environments (Bronfenbrenner, & Morris, 2006; Eccles & Gootman, 2002). Understanding current thinking related to engagement can help to inform this intentional design. Engagement has recently begun to be considered as a multidimensional construct that acknowledges behavioral, cognitive, and affective components simultaneously (Fredericks, Blumenfeld, & Paris, 2004; Yonezawa, Jones, & Joselowsky, 2009). In order to intentionally increase outcome achievement, youth programs are encouraged to more effectively engage youth across these dimensions.

While theoretically linked, little empirical research exists investigating potential relationships between characteristics of program quality, dimensions of engagement, and the achievement of specific outcomes. Understanding these relationships can help youth programs to intentionally engage participants in outcome achievement. Summer camp programs, the focus of this study, have both a long history of promoting youth developmental outcomes (American Camp Association, 2005). High quality best practices have the potential to increase outcome achievement. Therefore, the purpose of this study was to explore best practices that camp programs are using to engage youth in achieving their intended program outcomes. Best practices

are conceptualized as being strategies that can be developed, tools that can be utilized, and actions that can be implemented. Two guiding questions framed this study: 1) How do the strategies, tools, and actions that camp programs are using to achieve their intended outcomes align with camp program quality best practices? and 2) How do the strategies, tools, and actions align with the multidimensional construct of engagement?

## **Methods**

The sample for this study comprised of 21 summer camp programs that had previously participated in a research study conducted by the American Camp Association. Participants included camp directors or key staff from non-profit camps, for profit camps, agency affiliated camps, and religiously affiliated camps. Participants were sent the interview questions in advance in order to give them a chance to think about the questions. Interviews were recorded and transcribed verbatim. Interview transcripts were analyzed using the qualitative techniques of in vivo, descriptive, focused, and axial coding (Saldaña, 2009). Passages of text were coded and grouped into themes related to domains of camp program quality. Thematic relationships were interpreted according to intended program outcomes and through dimensions of engagement. Trustworthiness of the study was ensured through credibility, transferability, dependability, and confirmability (Henderson, 2006).

## **Results**

First-round coding yielded 84 codes related to outcomes, strategies, tools, and actions. Codes were grouped into 30 thematic categories based on characteristics of camp program quality. A summary of results is provided in Table 1. Thematic relationships between program outcomes and characteristics of program quality were interpreted in reference to dimensions of engagement. Salient thematic relationships emerged between dimensions of engagement and outcomes related to skill-development, independence, and affinity for nature.

## **Implications for Practice**

Camps discussed utilizing multiple dimensions of engagement to promote outcome achievement. For example, a camp focusing on hard skill development discussed an action called “Describe, Label, and Praise”. Staff members use this technique to publicly recognize campers for making progress toward goal achievement. Skill development requiring cognitive and behavioral engagement is reinforced affectively. Camp programs that identified independence as an important outcome discussed strategies involving ways to intentionally structure the program in order to allow campers more voice and choice. While all camps identified the inherent power of exposure to the natural environment as a strategy for increasing affinity for nature, camps specifically identifying nature as an important outcome discussed intentional strategies, tools, and actions designed to engage youth with nature.

Results of this study can serve as examples of strategies, tools, and actions that are being used to engage youth in outcome achievement. Programs for youth can use these examples to inform their own intentional programming efforts. Programs are encouraged to implement high quality best practices to promote outcome achievement.

Troy Bennett, University of Utah, 801-597-6179, troy.bennett@utah.edu

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**Table 1: Strategies, Actions, and Tools grouped by Domain of Camp Program Quality**

**Active and Cooperative Learning**

Strategy: Communicating and working with others through experiential learning

Tool: Camper chosen theme / new theme each year

Action: Campers work together over the course of the camp experience to plan and complete a major project, performance, or program

**Camper Voice**

Strategy: Progressive choice by camper age

Tool: Activity preference form filled out prior to camp

Action: Guide campers to choose different types of activities

**Emotional Safety**

Strategy: Provide support for staff to promote camper emotional safety

Tool: Scenario-based roll playing during staff training; staff self-evaluations

Action: Group counselors together by complimenting personalities

**High Expectations and Good Challenge**

Strategy: Progressive skill development

Tool: Setting goals with campers

Action: “Describe, label, and praise” to recognize progress toward goals

**Nature**

Strategy: Develop an appreciation for the natural world

Tool: Pocket guide with nature related fill-in activities

Action: Create a culture around nature

**Planning and Reflection**

Strategy: Use reflection to frame and transform experiences

Tool: Letter to yourself mailed from camp 6 months later

Action: Conduct a special reflection activity at the end of each day

**Staff Friendliness and Circulation**

Strategy: Individual attention

Tool: Counselors fill out a report that is sent home to parents each week

Action: “Having your one” – choosing one camper to focus extra on each ½ day

**Support for Belonging**

Strategy: Improve social competencies

Tool: Cabin notebook - filled out by staff each night for each camper

Action: Building camper relationships

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# **CAMPUS RECREATION OUTDOOR PROGRAMS' EFFECT ON COLLEGE STUDENTS' STRESS REDUCTION**

Yun Chang, Illinois State University

Curt Davidson, California State University at Long Beach

Seann Conklin, Indiana University

Alan Ewert, Indiana University

## **Introduction**

College students can be exposed to numerous types of stresses that can often be quite intense and challenging to deal with (Ewert & Yoshino, 2011). According to the National College Health Assessment (NCHA, 2015), college students report stress as the most impactful factor relative to their academic performance. The serious consequences of stress or stress-related issues such as anxiety, depression, and suicidal ideation have also received considerable attention in research. It is believed that being proactive in dealing with stress is critical to college students' well-being (Kadison & DiGeronimo, 2004).

Since the late 1970s, American colleges have invested heavily in constructing or renovating indoor campus recreation facilities (Cohen, 1996). The purpose behind these investments has been to enhance students' well-being and to facilitate a healthy lifestyle. Recently, the development of outdoor adventure and challenge experiences also adds value to traditional campus recreation programs by expanding the variety of recreational opportunities and responding to heightened student expectations (Zizzi, Ayers, Watson, & Keeler, 2004). These types of short-term outdoor programs targeting college students provides an ideal setting to examine the effects of campus recreation outdoor programs on intended health benefits such as stress reduction.

Recent lines of research have posited that natural environments can be effective in reducing stress (Ewert & Voight, 2012; Kaplan, 1995; Ewert, Klaunig, Wang, & Chang, 2016). It is also suggested that when physical exercise is performed in natural environments ("green exercise"), more physical and psychological health benefits (e.g. reduced blood pressure, increased self-esteem, positive effects on mood) are evidenced than when exercising indoors (Pretty, Peacock, Sellens, & Griffin, 2005). Given these findings, the main purpose of this study is to understand the synergistic benefit of campus recreation outdoor programs on college students' stress reduction.

## **Methods**

The study sample consists of 33 recruited students who voluntarily enrolled in selected campus recreation outdoor programs, including courses in backpacking, canoeing, and kayaking. These courses were provided by a university-based adventure program in the Midwestern United States. The structure of these campus recreation outdoor courses involved two weekly meetings in a classroom setting, a three-day field trip in a local wilderness area during a weekend, and a follow-up final meeting held in the classroom.

Both physiological and psychological stress responses were collected from participants. Numerous studies have shown that salivary cortisol is correlated with the human body's levels of stress. Accordingly, participants in this study were asked to produce 1-2 ml saliva samples into a polypropylene vial with the samples being stored in the laboratory refrigerator at -80°F for further analysis. Levels of cortisol were measured using an ELISA technique with a TECAN multi-plate reader. Participants' self-perceived stress was evaluated by a modified Perceived Stress Questionnaire (PSQ) (Fliege et al., 2005). Participants' saliva samples and levels of perceived stress were both collected at three different time points, including the second weekly meeting in the classroom (Time 1), before the field trip (Time 2), and after the field trip (Time 3).

## Results

This study used a total of 33 participants, including nine subjects who took a canoeing course, 16 subjects from a backpacking course, and eight subjects from a kayaking course. A one-way repeated measures ANOVA determined that participants' cortisol levels differed significantly between time points with a medium effect size ( $F(2,64) = 4.526, p < .05, \text{partial } \eta^2 = .124$ ) (Figure 1). Post-hoc tests using Bonferroni correction revealed that participants' physiological stress levels were significantly higher at the second weekly meeting (Time 1), yet were reduced significantly when in the field (Time 2), with a large sample sizes.

For the PSQ, a one-way repeated measures ANOVA determined that participants' perceived stress levels differed significantly between time points with a large effect size ( $F(2,64) = 9.685, p < .05, \text{partial } \eta^2 = .232$ ) (Figure 2). Post-hoc tests revealed that participants' Time 1 PSQ scores were statistically higher than those in the Time 3 ( $p < .05$ ), and Time 2 PSQ scores were statistically higher than those in Time 3 ( $p < .05$ ). Thus, the data suggested that participants reported reduced levels of perceived stress after participating in the outdoor programs than before the programs.

## Discussion

In this study, participants experienced higher physiological and psychological levels of stress at the second weekly meeting on campus (Time 1). When they traveled to the trailhead or the dock for their field trip experience (Time 2), their physiological and psychological stress levels were significantly lower when compared to Time 1. One possible explanation for this finding is the concept of "being away," one of the four properties of Attention Restoration Theory that posits that attention restoration occurs when experiencing natural environments (Kaplan and Kaplan, 1989), where being away refers to being exposed to an alternative place that is physically or mentally different from one's usual environment.

Another important concept of being away is "being away from" the everyday routines. Several studies have confirmed that daily hassles account for a large percentage of stress sources among college students (Ross, Niebling, & Heckert, 1999; Brougham, Zail, Mendoza, & Miller, 2009). These hassles may include a change in social activity or eating habits, being late, stuck in traffic, etc. The opportunity to be away from these daily challenges may explain why students' physiological and psychological stress levels were significantly lower while in the field. This circumstance may also help explain why students' physical stress levels slightly increased when they were finishing their trip experiences and going back to campus. The result of this study suggests that "being away to" a natural environment can be stress reducing for college students.

## Implications

This research posits that participating in campus recreation outdoor programs result in reduced stress levels for college students. This result makes a strong case for campus recreation's efforts in offering opportunities to improve college students' well-being and quality of life. Outdoor adventure activities provided by campus recreation offer college students opportunities to get away from daily hassles and to build up new connections with people outside of their academic social life. The study results also suggest that campus recreation can focus on the benefits of outdoor visits in marketing materials, where the opportunities to reduce stress and meet new people can be highlighted. Noted that students stress levels are high during the classroom session. Instructors or leaders of these programs can be proactive in addressing this issue.

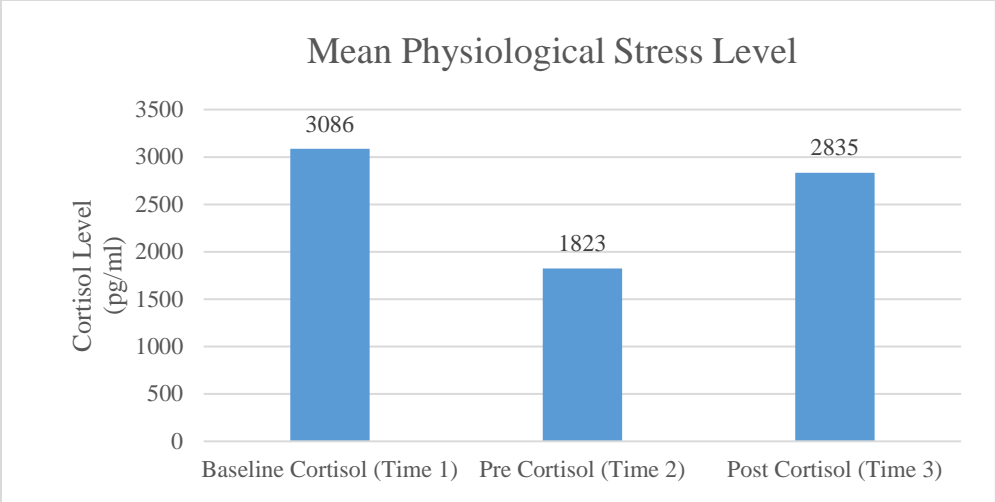


Figure 1. Mean cortisol level changes over time.

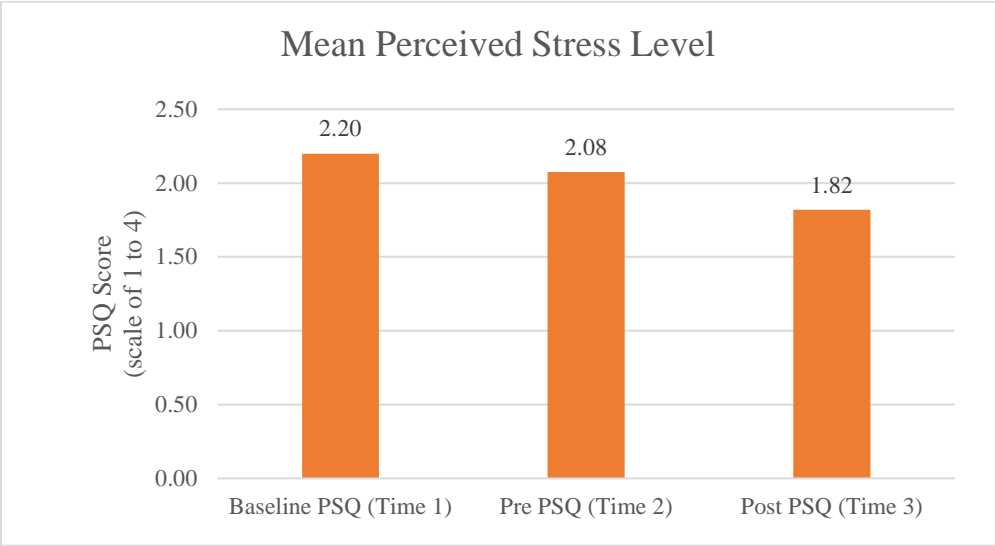


Figure 2. Mean perceived stress level changes over time as measured by Perceived Stress Questionnaire.

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## **LEISURE SATISFACTION THROUGH SPORT EVENT TOURISM AND LOCAL ATTRACTIONS**

Dongwook Cho, Alcorn State University

Curtis Clemens, Oklahoma State University

The tourism industry has recognized the field of sport tourism and its increased attraction since the mid-1990s (Gibson, 2005; Ross, 2001). Spectator sports, which is a major industry, is worth 28 billion and U.S. consumers are more likely to spend almost 17 billion a year to purchase tickets in sporting events (Plunkett, 2008). Furthermore, almost every city in North America has some sport tourism initiatives with dedicated personnel and agencies to attract tourists (Getz, 2008). More specifically, sport event tourism refers to participants who travel to watch a sport or hallmark event such as the Olympic Games, the World Cup soccer championships, and the professional sports games (Gibson, Willming, & Holdnak, 2003; Ross, 2001). Additionally, tourism associated with college football, NCAA Men's Basketball Tournament, and college baseball is part of the spectator-based sector of sport tourism (Dixon, Henry, & Martinez, 2013)

Reviewing sport tourism from a leisure satisfaction perspective can assist in further understanding the draw towards sports tourism. Leisure satisfaction was one of the primary variables that contributed in explaining an individuals' choice of participation in recreational activities (Searle, Mactavish, & Brayley, 1993). It is important to understand that overall satisfaction of leisure experiences would lead individual's intentions to continue or discontinue on participation in leisure activities and choices (Beggs, Elkins, & Powers, 2005; Petrick & Backman, 2001). However, there has been limited research into sport tourism as leisure activities and satisfaction level of sport tourism as a leisure experience.

The purpose of current study was 1) to determine respondents' frequency of travel on a trip overnight to participation a sporting event tourism, 2) to examine whether or not they participate in local attraction and satisfaction levels of local attractions during the sporting event ) to identify the effect of sport event tourism involvement and experience/satisfaction of local attractions on participants' leisure satisfaction by utilizing the mean of LSS short form.

### **Methods**

A total of 108 participants (male: 59 & female: 49) responded at the onsite nearby the stadium in a regional public four-year university located in the southwest region of the U.S. A convenience sample was utilized for the better understanding of fan tourists' experience of sports event participation, local attractions, and their leisure satisfaction. All of the surveys and research protocols were approved by the Institutional Review Board (IRB) for the protection of human subjects. The participants were individuals who identified as traveling to the location for the primary purpose of experiencing a sport tourism event. Participants identified their frequency of sport tourism participation per year, whether or not they take the time to experience the local attraction and the satisfaction levels of local attractions with a five-point Likert-scale. The LSS short form was confirmed the validity by Beard and Ragheb (1980) that would be suitable to utilize in the field of leisure and recreation. Reliability of six subscales in this study was confirmed by the Cronbach alpha coefficient measurement at psychological  $\alpha=.76$ , educational  $\alpha=.84$ , social  $\alpha=.73$ , relaxation  $\alpha=.82$ , physiological  $\alpha=.78$ , and aesthetics  $\alpha=.86$ . The researchers employed the Statistical Package for the Social Sciences 20 (SPSS 20) to analyze the data. This study was provided by the Kruskal-Wallis nonparametric test to examine the relationship between sports event tourism participation, local attractions and the LSS with six subscales.

## **Results**

The results indicated that participants were more like to participate in sports event tourism twice to four times per year (72.2%). More specifically, 32.4 percent of respondents participated in sports event travel two times per year which was the most frequent participation and followed three times (24.1%) and four times (15.7%) per year. Comparing the satisfaction levels of participants about additional local attractions showed that 14.8 percent of participants did not experience the other local attraction. Around 70 percent of respondents were satisfied or strongly satisfied with their experience of local attractions, while only 2.8 percent of participants were strongly dissatisfied or dissatisfied in additional local attractions.

Among six subscales, social and aesthetic satisfaction were two highest leisure satisfaction, while the lowest mean score was physiological leisure satisfaction. The results also revealed experience and satisfaction of local attractions were the statistically significant difference in aesthetic leisure satisfaction among six subscales of the LSS. However, there is not a statistical difference in six subscales of leisure satisfaction was indicated by the frequency of sport event tourism.

## **Discussion**

Results indicated that majority of the respondents had traveled two to four days to participate in sport event tourism. The previous study supports the results that 72 percent participated in some form of sport tourism four times yearly or more (Snipes & Ingram, 2007). As the analysis showed, social aspects of the leisure satisfaction scale were the highest mean scores. This idea supported that the social aspects of tourism, such as a fun community and interacting with friends were an important factor in tourism motivation. Satisfaction arose from experiencing these social specificities (Correia, Kozak, & Ferradeira, 2013; Goeldner and Ritchie, 2003; Yoshida, James, & Cronin, 2013). This study suggests aesthetics also had the highest mean of leisure satisfaction, and the experience and satisfaction of local attractions statistically influenced aesthetic leisure satisfaction when it came to leisure satisfaction of sport tourism and its amenities. Previous results supported that aesthetic environment such as quality and cleanliness of the sports facility was one of the main reasons to re-participate in the sports events (Lee & Kim, 2014; Yoshida, James, & Cronin, 2013). Also, the research by Gibson, Willming, and Holdnak (2003) indicated that the town where the sporting event held was one of the main reasons to visit that the areas provided decent restaurants and local shopping opportunities.

## **Application for Practice**

The findings from this study should be considered by practitioners in the development of strategies to attract more participants based on results of leisure satisfaction level through sports event tourism. For instance, it may be helpful to provide the partnership between the organization of sports events and local attractions so that they would be able to give more satisfaction to participants that result to revisit the sport events. Moreover, practitioners should recognize social aspects of participation in sports event tourism. Based on the findings, it may be beneficial for practitioners to provide marketing events that people can get together easily and to have more opportunities for social interaction. In addition, it may be beneficial for sporting event providers' to partner with local business to develop a plan building on satisfaction areas that were not a highly regarded. This way further research may be able to identify whether or not building up those areas would increase satisfaction and in turn provide further repeated visitation.

Dongwook Cho, Ph.D. Health, Physical Education and Recreation, Alcorn State University, Lorman, MS, (601) 877-6503, [dcho@alcorn.edu](mailto:dcho@alcorn.edu)

Table 1.

*Frequency of participation in sports event tourism and experience/satisfaction levels of local attractions*

	n	%
On average, how many times per year do you travel on a trip overnight to participation on watching a sports event?		
1	8	7.4
2	35	32.4
3	26	24.1
4	17	15.7
5	5	4.6
6	4	3.7
7	3	2.8
8	4	3.7
9	0	0
10	6	5.6
In general, how would you rate local attractions?		
Not Available	16	14.8
Strongly dissatisfied	2	1.9
Dissatisfied	1	.9
Neither dissatisfied nor satisfied	14	13.0
Satisfied	41	38.0
Strongly satisfied	34	31.5
Total	108	100

Table 2.

*Means and Standard Deviation of the Leisure Satisfaction Scale (LSS), and the Kruskal-Wallis test results for sports event tourism participation and experience/satisfaction of local attractions on Subscales of the Leisure Satisfaction Scale (LSS)*

Subscales of Leisure Satisfaction Scale	Sports event tourism participation		Experience/satisfaction of local attractions	
	<i>M</i>	<i>SD</i>	<i>Chi-Square</i>	<i>p-value</i>
Psychological	3.59	.717	5.447	.709
Educational	3.83	.774	2.659	.954
Social	3.95	.616	2.926	.939
Relaxation	3.94	.788	4.790	.780
Physiological	3.01	.850	15.508	.050
Aesthetic	3.95	.702	9.605	.294
			19.179	.002**

Note: \*\*  $p < .01$

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# **ASSESSING THE DISTRIBUTION OF BENEFITS OF PROTECTED AREAS TO NORTHERN BOUNDARY COMMUNITIES**

Rebekah Esau, University of Saskatchewan

David Natcher, University of Saskatchewan

Kenneth Belcher, University of Saskatchewan

## **Introduction**

The Alaska state park system contains over 120 park units, with the purpose of conservation of resources for residents' use and enjoyment, and providing recreational opportunities (DeVaughn, 2010, 3). Parks and protected areas (PPAs) have been shown to potentially provide various benefits, including access to resources for subsistence, ecosystem services, recreation, cultural or spiritual values, knowledge or education, as well as nature conservation (Dudley and Stolton, 2009, 6). Monetary valuations of the benefits of PPAs can be used to justify continued support for, and expansion of, PPAs around the world, in light of competing land uses. In Alaska, three national wildlife refuges in the Bristol Bay area were found to annually support 3,225 jobs, generate annual personal income of US\$126.8 million, and have an annual economic use value US\$82 million (Goldsmith et al., 1998, 5-4, 5-6). The annual impact of Katmai National Park and Preserve in Alaska was also estimated. It was found that the annual economic impact of visitors to the park was US\$50 million, and it supported 647 jobs (Fay and Christensen, 2012, 209).

While these studies lend evidence to the argument that PPAs provide important economic returns, the methodologies often used have been criticized for being narrow in scope (Kettunen and ten Brink, 2013, 26) and lack critical attention to the distribution of economic benefits (Pabon-Zamora et al., 2008, 6). This paper focuses on an analysis of the distribution of the benefits of Wood-Tikchik State Park (WTSP) in the Bristol Bay region of Alaska. Benefits analyzed included monetary estimates of direct use benefits, and other non-monetary benefits distributed among identified stakeholder groups.

## **Methodology**

To analyze the geographic distribution of monetary and non-monetary benefits of WTSP across stakeholder groups, secondary data available for the region was amalgamated and analyzed. Additional data was secured through distribution of a survey and the completion of key informant interviews. Stakeholder groups considered included: owners of land within WTSP, residents of WTSP boundary communities, local and state non-governmental organizations, government, and industry. Secondary data analysis was conducted to determine some of the direct use monetary values of WTSP. Using annual values of the Bristol Bay sockeye salmon harvest, and estimates of escapement in Bristol Bay rivers, the contribution value of WTSP to the Bristol Bay commercial harvest was estimated. The contribution of WTSP to annual subsistence harvest of boundary communities was estimated using the CSIS harvest data, escapement estimates, and the estimated value of subsistence salmon of \$4 to \$8 per pound (Department of Subsistence, ADFG, 2012). The 2016 monetary revenue of Alaska State Parks and commercial fishing lodge operators from commercial recreation in WTSP was also estimated. To supplement the available secondary data, a survey of visitors was distributed and key informant interviews were conducted. A survey regarding travel expenditures of visitors to WTSP was distributed at a WTSP fishing lodge, and 13 key informant interviews were conducted with members of WTSP stakeholder groups. Each

participant was asked to identify whether an identified benefit of WTSP was of minor, major, or potential importance, for economic or non-economic reasons. The results were aggregated to demonstrate importance and distribution of benefits.

### **Results**

From 2013 to 2015, the average annual value of the contribution of the sockeye salmon from WTSP to the commercial harvest of sockeye salmon in Bristol Bay was US\$28.18 million. Using available data from 2005 to 2010, the estimated annual values of subsistence harvest of sockeye salmon which can be attributed to WTSP is US\$218,231 to US\$436,462. The average cost per day of residing at a commercial fishing lodge in WTSP in 2016 was US\$1,086.74, and 3224 visitor days at fishing lodges were reported to Alaska State Parks. Therefore, an estimated US\$3.50 million was earned by owners of WTSP fishing lodges, and Alaska State Parks collected US\$44,040 in visitor use fees. Respondent results of the visitor survey from a WTSP fishing lodge found that the average total trip expenditures were over US\$6000, but that, on average, less than \$200 was spent in the community outside WTSP.

The benefits which all boundary community members who participated in the interviews identified to be of major importance of nature conservation and wilderness/iconic values, major non-economic importance of water quality and quantity, and the major importance of fisheries for both revenue and subsistence.

### **Discussion**

The monetary benefits of WTSP were distributed across stakeholder groups, harvest of salmon benefited boundary community residents, Alaskan residents, and other US residents. Most of the monetary benefits from commercial recreation go to non-Alaskan residents. All the benefits from WTSP that were assigned a monetary value can be linked to the salmon, or other fishery resources, in the WTSP area. There were also non-monetary benefits associated with fisheries that were of major importance to members of all stakeholder groups. Boundary community residents readily acknowledge the links between the different non-monetary benefits WTSP provides. The presence of salmon in the region was connected to many other benefits including nature conservation, water quality, knowledge, education, as well as cultural values. While a monetary value can be assigned to demonstrate importance of WTSP and the provision of salmon to different stakeholder groups, it is clear the monetary value cannot encompass all the dimensions of value the area has, to boundary communities and other stakeholders.

### **Implications for Practice**

Wood-Tikchik State Park provides many benefits to different stakeholders, including boundary community residents. Being able to account for these benefits will be important for conservation of these areas, especially as demand for alternative land uses in the north grows. It is important to not only understand what the benefits are, but how they occur in the interaction between protected areas and communities. By understanding how benefits from protected areas accrue to boundary communities in the north, protected areas can be managed and decisions made which account for the provision of these benefits. The potential for protected areas in the north to provide economic and non-economic benefits to boundary communities, as well as the global community, can assist in the preservation and establishment of these protected areas.

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# **INCREASING HEALTH THROUGH PARK PRESCRIPTIONS: A REVIEW OF THE LITERATURE**

Jeanette Gustat, Tulane University School of Public Health and Tropical Medicine

Maranda Hyde, Tulane University School of Public Health and Tropical Medicine

Sandy Slater, University of Illinois at Chicago

## **Introduction**

Obesity and physical inactivity are major public health problems in the U.S. population. Increasing physical activity (PA) to 30 minutes or more on most days can provide substantial health benefits (Pate et al., 1995), including reductions in depression and stress and can prevent weight gain and assist in weight maintenance (Penedo & Dahn, 2005; Fox, 1999; Torres, Sampsel, Ronis, Neighbors, & Gretebeck, 2013). National estimates of objectively measured PA indicate that less than five percent of American adults meet national guidelines for PA (Troiano, Berrigan, Dodd, Masse, Tilert, & McDowell, 2008)

The physical environment is one factor among many that influence the propensity to be physically active. Physical activity can be facilitated or constrained by the built environment even though relationships among individual factors, social factors and the physical environment, is complex and not well understood or theorized (Transportation Research Board, 2005). Environmental and policy approaches to physical activity need to be considered as efficient ways of addressing the obesity crisis as individual behavior and lifestyle modifications do not seem to work (Sallis, Bauman, & Pratt, 1998).

Parks play an important role in physical activity. They are freely accessible to all community members, which makes them an ideal setting for physical activity interventions. Prescription programs to parks have been gaining in popularity as one way to increase activity levels among patients. Yet, few programs have examined the success of increasing physical activity among recipients of such prescriptions. Although these prescription programs can be used in any state or community and have the potential to positively affect behavior change for a large segment of the population, evidence is needed to determine what impact park prescription programs have on physical activity behavior.

## **Methods**

A program was considered a park prescription program if it came from a physician and specifically prescribed completing physical activity outdoors in a public space. Physical activity prescription programs were also examined as those that prescribed PA but did not specify when or where to complete the prescription. The literature review was carried out using multiple databases (Ovid, PubMed, BJSM Online, and ResearchGate) to identify relevant studies conducted between 1996 and January 2017. The search included the following terms: Park Prescription, Park Rx, Green Prescription, Physical Activity Prescription, Green Rx, Walk with a Doc, Prescription Programs, Nature and Health, Exercise on prescription, Outdoors Rx, Rx Play, Exercise Referral, Exercise Referral Schemes, and Exercise as medicine. To be included in the review, studies had to be from peer-review journals and include a formal evaluation of a park prescription or physical activity prescription intervention.

## **Results**

The search identified 435 publications. From those identified, 409 were excluded following review of titles and abstract. Twenty-six articles were assessed in detail. Of those, 17 studies met the selection criteria and were included in the review.



Prescriptions programs varied as to whether they were prescribing physical activity or outdoor activity. Many of the prescriptions were written to increase walking. Step goals (measured via pedometer) were found to be the most effective way of increasing PA, in comparison to time goals. Some of the programs included telephone check-ins and motivational interviews and these showed a significant increase in physical activity levels but only for a short period. Written prescriptions had more recipients following the advice and tended to show a higher increase in the amount of physical activity compared to verbal advice given. Exercise behaviors of the physicians were shown to effect advice provided to patients, as physicians who exercised were more likely to counsel their patients to exercise. Prescriptions tended to have a positive effect on those with low baseline physical activity levels. Even greater success was seen when patients were given information to local resources, and/or park passes. Patients, especially women, were also more likely to follow advice if resources offered a structured social experience.

Common barriers for not following prescriptions included a fear of injury, transportation constraints, lack of confidence chronic health conditions and how to fit the advice into daily routines.

### **Discussion and Implications for Practice**

Although the literature review revealed that there is a paucity of evidence on the impact of park prescriptions on physical activity behavior, some positive practices were identified. Park prescription programs are more effective when coupled with some kind of follow-up by a health care professional, information on local resources, or an incentive, such as a park pass, was provided. More work is needed on evaluating multi-component park prescription programs to determine what the optimal combination of practices is, and also whether there are differences in the impact of these combinations across subpopulations. Programs and strategies that target the identified barriers to participating in park prescription programs should be developed and evaluated. For example, working with program staff to develop classes that teach park prescription recipients the correct way to use park exercise equipment or exercise independently to reduce injury, or working with recipients to identify and develop a wide variety of programs to address varying levels of activity and skills are possible ideas. Incorporating fitness trackers into goal setting may increase physical activity levels, and potentially interest in the programs if offered as incentives. Additionally, park and recreation staff should examine ways to improve access including exploring transportation options for getting to local parks.

Jeanette Gustat, Tulane University School of Public Health and Tropical Medicine, (504) 988-1029, [gustat@tulane.edu](mailto:gustat@tulane.edu)

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## **SIGNIFICANT CAMP EXPERIENCES FROM ADOLESCENTS WITH DIVERSE PSYCHOSOCIAL IDENTITY STATUSES**

Cindy L. Hartman, University of New Hampshire

Ann Gillard, The Hole in the Wall Gang Camp

Patti J. Craig, University of New Hampshire

**Introduction:** Recreation agencies play major roles in providing camp experiences that will benefit adolescents at camp and beyond (e.g., Thurber, Scanlin, Scheuler, & Henderson, 2007). Adolescents arrive at camp with existing identities that affect how they process the camp environment and its associated activities (Arnett, 2014). One concept of identity, psychosocial identity, describes the adolescent identity development process as requiring the consolidation of internal preferences, skillsets, and values with external factors of peers, family, and society (Marcia, 1980). Adolescents with consolidated identities are better able to connect individual experiences to their overall life story whereas those still exploring their identities might not have that ability (McLean, 2005). Thus, identity development might play a role in how adolescents process camp experiences and how outcomes are utilized beyond camp. The purpose of this exploratory study was to investigate the connections between psychosocial identity development and the meanings adolescent campers ascribe to salient camp experiences. This research can identify program facilitation implications for recreation agencies offering camp programming, and could support the transfer of camp outcomes to home, school, and community contexts.

**Methods:** Thirty-one adolescents from two residential summer camps in New England completed an online survey three months following their respective camp sessions. This study used a mixed method design where quantitative identity data were used to segment adolescents campers into identity clusters, and qualitative data were used to explore meanings ascribed to significant camp experiences as identified by campers. The Dimensions of Identity Development Scale (DIDS; Luyckx et al., 2008) was used to measure psychosocial identity development. The scale is a 25-item 5-point Likert-type scale ranging from “strongly disagree” to “strongly agree” and includes five identity dimensions: commitment making, identification with commitment, exploration in breadth, exploration in depth, and ruminative exploration. A latent class approach (SAS) was used to cluster adolescents into identity groups based on their responses to the DIDS scale. Campers were asked to write about their most significant experience at camp. The qualitative narratives were analyzed for meaning making and event type (theme) using a coding scheme established by McLean and Pratt (2006). Meaning making was defined as the extent to which a camper learned something from the event. Narratives were coded on a 4-point scale, from “no meaning” (0) to “insightful” (3), where increasing scores reflected higher complexity in meaning derived from the experience (McLean & Pratt, 2006). Narratives were also coded for event type: relationships, achievement, autonomy, or mortality (McLean & Pratt, 2006). Three independent researchers coded the qualitative data with only one researcher having knowledge of the quantitative identity data results. Upon completion, coding disagreements were discussed and resolved among the researchers. Once the qualitative and quantitative data were analyzed separately, they were converged to explore the intersection between identity development and significant camp experiences among adolescent campers.

**Results:** The quantitative latent profile analysis produced a three-cluster identity solution. Standard deviations were calculated to ascertain the degree to which the mean score of each cluster was different from the mean of the entire sample for the five identity dimensions. The degree to which standard deviations represent effect sizes has been established in the identity literature:

“Analogous to Cohen’s (1988) *d*, 0.2 SD is a small effect, 0.5 SD is a medium or moderate effect, and 0.8 SD is a large effect” (Luyckx et al., 2008, p. 71). In this study, moderate effect sizes were found for the commitment making identity dimension, with Cluster 1 demonstrating moderate positive deviation from the mean ( $SD = 0.54$ ) and Cluster 2 demonstrating moderate negative deviation ( $SD = -0.58$ ). Thus, the two clusters were named Committing ( $n = 13$ ) and Searching ( $n = 12$ ) based on the standard deviation scoring on the five identity dimensions. The third cluster ( $n = 6$ ) was discarded due to minimal differentiation from the mean. Figure 1 displays the two identity clusters and their respective *SD* scores for the five identity dimensions. Twenty-five narratives were analyzed for meaning making and event type, producing 79% and 84% agreement respectively. Narratives ranged in complexity of meaning making from no meaning ( $n = 1$ , 4%), lessons connected solely to the camp environment ( $n = 14$ , 56%), vague meanings ascribed beyond camp ( $n = 5$ , 20%), and explicit insights ascribed beyond camp ( $n = 5$ , 20%). The narratives described event types associated with relationships ( $n = 13$ , 52%), achievement ( $n = 6$ , 24%), and autonomy ( $n = 6$ , 24%). Example narratives are included in Table 1. Committing campers produced narratives that, on average, included higher complexity in meaning making ( $M = 1.86$ ) than searching campers ( $M = 1.33$ ). Committing campers reported narratives linking significant camp experiences to relationship ( $n = 13$ ; 54%) and autonomy themes ( $n = 5$ , 38%) while searching campers wrote narratives rich with relationship ( $n = 6$ ; 50%) and achievement ( $n = 5$ , 42%) themes.

**Discussion:** The purpose of this study was to investigate the connections between psychosocial identity development and the meanings campers ascribe to camp. Over half of the campers wrote narratives describing lessons connected to camp, while 40% ascribed meanings and transformations outside of the camp environment. Thus, the camp experience is rich for meaning making, but facilitation and debriefing techniques are needed to induce transferability of meaningful lessons achieved through camp activities to contexts outside of camp. Identity development also played a role in the types of camp experiences identified as meaningful. Committing campers wrote narratives focusing on autonomy experiences while searching campers focused on achievement experiences. Autonomy or relationship narratives have been associated with higher meaning making as compared to achievement narratives (McLean and Pratt, 2006). Camp professionals might use camp activities fostering autonomy and social outcomes over achievement outcomes for optimal meaning making. There were similarities among the two identity clusters – over half of participants wrote narratives linked to the social aspects of camp including relationships, group cohesion, and counselor-camper bonding. To increase transferability, camp professionals might discuss how strong relationships can be built outside of camp through positive interactions with peers, teachers, coaches, and parents.

**Implications for Practice:** This study provides support for intentionally designing and implementing recreation-based learning experiences to produce intentional outcomes at camp and beyond. The narratives provided in this study support the importance of camp activities producing social and autonomy-based outcomes, and suggest that campers would benefit from strong debriefing processes, which requires campers to reflect and apply the lessons learned at camp to other contexts. Thus, there is a need to have camp staff appropriately trained in facilitation processes. Transferable outcomes from camp experiences can occur and transfer to other contexts, but identity development may affect individuals’ capacities to apply the lessons learned at camp.

Cindy L. Hartman, Recreation Management and Policy, University of New Hampshire,  
603.862.3795, cindy.hartman@unh.edu.

Figure 1: Identity Cluster Standard Deviations

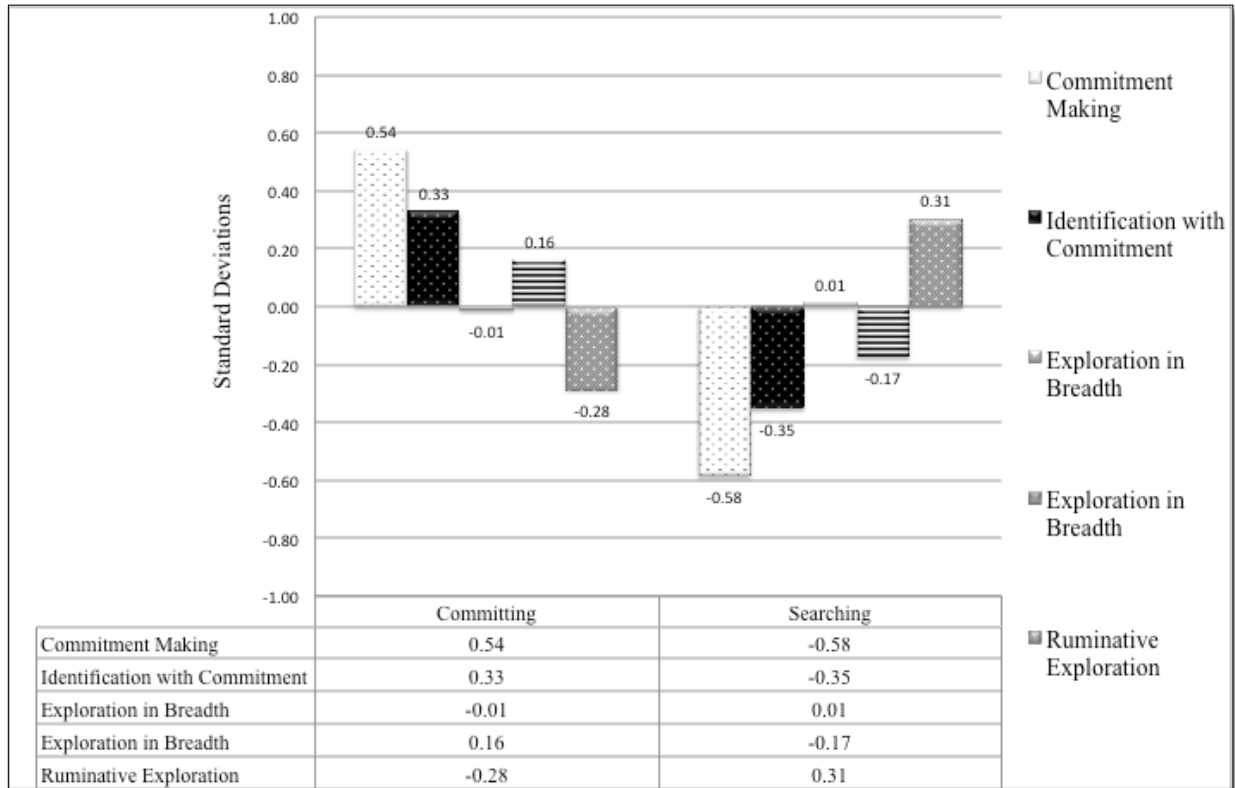


Table 1: Meaning Making Coding Scheme

Code Description	Example Narrative (Event Type, Identity Cluster)
No Meaning: Reporting of behavior/action, no thought or reasoning (0)	“Jumping off the tower into the abyss. This is very different especially because it was at midnight. Not scary, but fun.” (Achievement, Searching)
Lesson: Meanings that were often behavioral and did not extend beyond the original recalled event (1)	“The abyss because it was the jump that left the past me behind and left open a lot of options for me.” (Autonomy, Searching)
Vague Meaning: Meanings that extended beyond camp experiences but were general in nature (2)	“The most significant experience was doing the Maze where the only way to get out was to ask for help. It showed me that sometimes, although it may make me feel as though I am given up or have been defeated, asking for help and support can be necessary.” (Relationships, Committing)
Insightful Narratives: Meanings that extend beyond the specific event to explicit transformations in one’s understanding of oneself (3)	“The most significant activity from this summer was the maze. Ever since I went into the deep hole I went into, I have had a lot of trouble asking for help. I was in the maze for so long just like I was lost for so long. I kept pushing people out just like I didn’t raise my hand for the maze. I have learned from that experience so much. I ask for help when I’m lost in class or don’t know how to do anything. I am always asking for help instead of stressing myself out and not understanding or falling into a mental breakdown.” (Relationships, Committing)

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## **CASE STUDY: RURAL COMMUNITY'S STAKEHOLDER ENGAGEMENT IN EVENT PLANNING**

Tricia Jordan, Western Kentucky University

Fred Gibson, Western Kentucky University

Deborah Howard, Western Kentucky University

### **Introduction/Rationale**

By connecting individuals and groups with common interests, community engagement seeks to develop partnerships for the purpose of problem solving and decision making (Minnesota Department of Health, 2016). Methods of engaging individuals may range from surveys to large group planning sessions (Lauber, Decker, Leong, Chase, & Schusler, 2012; Butteriss, 2012). Potential beneficial outcomes include the development of trust, connections to new resources, and identification of community leaders. A potential resource connection includes the social capital of those participating in the engagement process. Adler and Kwon (2002) suggest social capital is "understood roughly as the goodwill that is engendered by the fabric of social relationships and that can be mobilized to facilitate action" (p. 17). Maak (2007) posits responsible leaders seek to develop social capital. Hyman (2002) connected social capital, community building, and civic engagement while suggesting it is a process involving engaging community members, agenda building, community organizing, community action, and message development. Engagement and citizen participation have been investigated in a variety of contexts including tourism (Chase, Amsden, & Phillips, 2012), wildlife (Lauber et al., 2012), environmental management (Tompkins, Few, & Brown, 2007), and community sports (Casey, Payne, & Eime, 2009). The use of corporate sponsorship allows recreation departments, event planners, and sport organizations to fill funding gaps (Berrett & Slack, 2001; Doherty & Murray, 2007; Weiler, Moore, & Moyle, 2013). This study provides an in-depth characterization of one rural community's attempt to reengage an important group of community stakeholders in the program planning process in order to fully utilize a new event plaza. Researchers followed the process of reengaging corporate sponsors involved in the community's summer concert series entitled Friday Night Live (FNL). Emphasis was placed on perspectives of individuals involved in the process while attempting to understand the motives, benefits, and challenges associated with engagement.

### **Methods**

Researchers selected a single case study design. Case study designs allow researchers to understand the complexities surrounding a case overtime while using multiple means of data collection (Olson, 1982; Creswell, 2007). Data sources for this case study included event observations, key stakeholder interviews, and meeting notes. Interviews (n = 7) included the city's community development director responsible for planning FNL and sponsor representatives from a healthcare organization, financial institution, tourism, and the local newspaper. The thick description of the case provides the foundation of qualitative analysis while providing a basis of determining how transferrable the lessons learned may be (Patton, 2002; Merriam, 1988). The researchers used the constant-comparative method to evaluate the collected data for existing themes (Glaser & Strauss, 1967). Researchers individually and collectively reviewed, analyzed, and discussed the emergent themes.

### **Results**

The community development director (CDD) used individual and small group meetings to gather re-engagement ideas. Themes derived from the case study's data centered around three categories: motivation, benefits, and challenges. Motivating factors for engagement in the planning

process included mission, community connection, strategic engagement, and the right partners. For instance, connecting to the community where sponsors conducted business was important as sponsors felt their involvement was about relationship building. Brand placement, employee morale, and community betterment emerged as benefits of the sponsor's community engagement. Engaging in events that organizational members cared about, allowed members to work outside of the organization's walls. This builds camaraderie and allows a cross section of organizational members to be involved in improving employee morale. Finally, allowing different organizational members to participate in community events tapped organizational talent needed for each event's success. Resource allocation emerged as a challenge in two ways. First, the increasing number of activities/events sponsors were asked to engage in made it challenging to select beneficial opportunities. Secondly, if sponsor's activities were not budgeted, involvement may only be seasonal in nature versus a full calendar of involvement opportunities matching the organization's mission. Finally, those involved in the case stressed the importance of sufficient information to facilitate their decision-making and engagement.

### **Implications for Practice**

In this case, use of one-on-one or small group meetings matched with the community development director's desire to engage stakeholders and gain ideas while helping grow the event after the construction of the event plaza. When attempting to engage a larger group of stakeholders, other forms of engagement may be more suitable. For example, if the CDD wanted to gather suggestions from those attending the event they may want to use tap surveys or other event day inquiry methods to collect data. Stakeholders clearly recognized the value of bringing together the right mix of individuals to share the planning work, develop additional ideas, and utilize connections to make the event and community better. Coupled with event leadership's understanding of social capital future attempts to seek new partners should stress how each partner brings valuable skills/knowledge to the table. Additionally, stakeholders also understood how their involvement could benefit their organization through brand placement while benefiting the community. Their successful cooperation and relationship development was realized by many stakeholders. Those seeking additional event stakeholders should develop clear talking points connecting how engaged communities help each organization become successful. It is also important to delineate clearly the connections between the event's mission/outcomes and the organization's mission and participation outcomes. This allows stakeholders to make decisions on resource investment based upon missions or objectives. Similar talking points should be developed to demonstrate how the event helps match each stakeholder's brand placement goals. Resource challenges were shared by all stakeholders. This challenge highlights the importance of information and transparency when making funding or other involvement requests of potential stakeholders. Within this case, stakeholders utilized formal and informal event data to determine if continued involvement with current and/or future community events helped achieve their mission. Information collection involved sponsorship applications, post event reports, and informal discussions regarding organizational engagement. Effective research and transparency will benefit event planners while providing stakeholders with pre-event information and post-event outcomes. Timely requests will also help stakeholders develop a well-round calendar of strategic engagement activities to assist with resource allocation.

Tricia Jordan, Ph.D. Western Kentucky University, 270-745-6042, [tricia.jordan@wku.edu](mailto:tricia.jordan@wku.edu)



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## **Community Project with women of La Capri, San José, Costa Rica: Photographic documentation of recreation experiences in an urban setting**

Susana Juniu, Montclair State University

Carmen Grace Salazar Salas, Universidad de Costa Rica

María Gabriela Hernández Cunto, Montclair State University

### **Introduction**

In recent years, one of the themes of concern among public health professionals is how the lack of leisure time physical activity is affecting people's health (Abalde & Pino, 2015; Brownson et al., 2009). Lack of facilities and poor maintenance of the existing ones, as well as the urban environment design are some of the factors that contribute to low participation in physical activity. According to Sallis (2009), the practice of leisure time physical activity depends on how friendly is the design of the space. Chriqui et al. (2016) suggest an association between zone codes and behaviors related to active recreation, mostly in mixed use areas. A few studies use visual methods to examine the influence of environmental conditions of parks, streets, sidewalks, and paths in the social vulnerable communities' leisure behavior. Research studies that have used this methodology suggest that by improving the infrastructure in cycling or walking areas, cities can promote a more active participation (i.e. broader pedestrian areas and safer sidewalks and cycle lanes) (Belon et al., 2014). Methodologies such as Photovoice can provide information on the interaction between the environment and the individual's behavior, which cannot be documented with traditional research methods (Annear *et al.*, 2014). This Community-Based Participatory Research (CBPR) methodology gives the participant a voice through images, creating new opportunities to reflect on and to represent relevant community issues in a creative, critical, and personal way. It is based on a number of theories and practices of understanding the world including: documentary photography, public health promotion, grassroots social action, feminist theory, and Paulo Freire's theory of critical consciousness (Wang, 1999; Wang & Burris, 1994, 1997). They are used to denounce the reality of social situations to generate changes and, therefore, to improve the conditions of the communities. Gender inequalities have been studied since the 1980s in countries such as the United States and Canada; specially the barriers that prevent women from recreating themselves (Henderson and Hickerson, 2007). Women from socially vulnerable communities tend to spend more time with their families and other local members and have less opportunity to recreate than men. For this reason, the purpose of the study was to document through photographs and narratives the leisure experiences of a group of women and to explore the urban conditions in which they recreate.

### **Methodology**

This investigation used Photovoice to conceptualize the participants' experiences as an alternative way to document their surroundings and circumstances. Nine women from La Capri, a community outside San Jose, Costa Rica, participated in the study. The age ranged from 16 to 56 years. The recruitment of women began by contacting a community leader and explaining the purpose of the project to help the investigators locate participants. The project took place from May to June 2016. There was a 90-minute orientation including a description of the project, presentation on recreation related concepts, introduction to the technique of Photovoice, and the ethics regarding the importance of obtaining written permission for photographing people. Each participant completed a consent form. The participants were asked to take photographs during two weeks and chose 15 images that best represented their experiences. Along with the photographs, the women wrote a paragraph explaining what each photograph represented.

## **Data Analysis**

A total of 150 images including individual reflections and comments explaining the photographed image was collected. The analysis of the photograph followed a 3-stage process: (a) selecting the photographs, (b) contextualizing the photos during interview / group sessions, and (c) codifying the issues and themes (Wang, 1999). During the focus-group discussion, the women analyzed the photos by answering the following questions (Wang, Burris, and Xiang, 1996): (a) What do you see here? (b) What is really going on? (c) How does this affect your lives? (d) Why does this strength or weakness exist? And (e) What can we do about it? The participants worked in groups and categorized the photos into themes. The investigators facilitated this process by analyzing the narratives and the words the participants used to identify common themes in their stories and by using the constant comparative method (Glaser & Strauss, 1967). The words of the participants' descriptions that best depicted the meanings of the stories were used to name the grouped photographs.

## **Results**

As presented in Table 1, five key themes were identified to understand the social and environmental conditions related to participation in physical activity and other recreational activities: (1) low participation in physical and recreational activities, (2) insecurity in the community, (3) community indifference and abandonment of the environment, (4) lack of interest and responsibility of the community and of the Municipality to maintain recreational spaces, and (5) lack of investment to improve the environment. These results demonstrate how the perception of insecurity and the negligence of the urban environment influence the behavior and the low participation in recreational activities of the community members.

## **Discussion**

Women's experiences and lives were the starting points to produce knowledge about recreation in this marginalized community. These women felt recognized because their voices were taken into account and they were able to identify and denounce concerns about the recreational conditions of their community. The findings were consistent with previous research in that women became empowered and more confident as a result of the respect others showed about their opinions (Morgan, et al., 2010). In addition, the participants were motivated to work as a team to examine the neighborhood conditions and to provide recommendations. They stressed the importance of improving the recreational spaces and programs to increase participation and to benefit the community at large. These results support Sallis' (2009) recommendations that the practice of leisure time physical activity depends on how friendly is the design of the space. Research recommendations include: (a) expanding recreational alternatives, (b) implementing urban safety measures, (c) avoiding garbage accumulation in recreational and social spaces, (d) providing preventive maintenance and continuous corrective maintenance to facilities (e) improve the conditions of green areas, and (f) invest in leisure education.

## **Implications for Practitioners**

The use of Photovoice as a methodology offers a new research approach to examine recreation related issues. It lets the researchers promote a transformation of the subjects' points of view about themselves, recreation, and their neighborhood, as well as to generate the opportunity to address the needs of their community.

Susana Juniu, Department of Exercise Science and Physical Education, Montclair State University, (973) 655-7093, junius@montclair.edu

Table 1.

Key Factors	Recommendations	Action
1. Low participation in physical and recreational activities	Expanding recreational alternatives	<ul style="list-style-type: none"> <li>• Expand the range of cultural and sports activities</li> <li>• Improve recreational facilities</li> <li>• Build new recreational facilities</li> <li>• Create and design recreational programs for different groups (age, sex, abilities, ...)</li> <li>• Place maps of the community in strategic places, indicating the location of the recreational areas</li> <li>• Plan with: <ul style="list-style-type: none"> <li>• An aesthetic focus or</li> <li>• A therapeutic focus</li> </ul> </li> </ul>
2. Insecurity in the community/lack of safety measures	Implementing urban safety measures to protect community citizens	<ul style="list-style-type: none"> <li>• Light streets and recreational and sports areas</li> <li>• Maintain vacant lots and recreational and sporting areas free of weeds to prevent delinquents from hiding there</li> <li>• Increase the number of police officers in the community</li> <li>• Place a police delegation in a strategic location</li> </ul>
3. Community indifference and abandonment of the environment	Avoiding garbage accumulation in recreational and social spaces	<ul style="list-style-type: none"> <li>• Remove garbage from recreational and sports facilities</li> <li>• Place small garbage dumps on streets and recreational areas</li> <li>• Place large garbage dumps for houses</li> <li>• Pick up the trash more than once a week</li> </ul>
4. Lack of responsibility of the community and of the Municipality to maintain recreational spaces	Providing preventive maintenance and continuous corrective maintenance to sport and recreational facilities	<ul style="list-style-type: none"> <li>• Establish preventive maintenance schedules and corrective maintenance of equipment and equipment in recreational and sports facilities</li> <li>• Supervise preventive maintenance and corrective maintenance</li> </ul>
5. Lack of investment to improve the environment	Improving the conditions of green areas, and investing in education.	<ul style="list-style-type: none"> <li>• Cooperate with / obtain institutional support to implement reforestation plans</li> <li>• Promote the protection and recycling of garbage</li> <li>• Promote leisure education</li> <li>• Promote the care of recreational and sports facilities</li> </ul>

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# LEISURE, SOCIAL SUPPORT, HEALTH, AND LIFE SATISFACTION AMONG INDIVIDUALS WITH PHYSICAL DISABILITY

Junhyoung Kim, Texas State University

May Kim, Korea University

Hyunmin Yang, Texas A&M University

Areum Han, Korea University

Se-Hyuk Park, Seoul National University of Science and Technology

## Introduction

Leisure scholars have suggested that leisure engagement can create social support systems and improve life satisfaction among individuals with physical disabilities (Jung, 2013; Kerr, Rosenberg, & Frank, 2012). A growing body of literature has shown that individuals with physical disabilities have used leisure as a way by which to increase life satisfaction and improve social relationships with others (Leeuwen et al., 2012; Tomasone et al., 2013; Yazicioglu, Yavuz, Goktepe, & Tan, 2012). In spite of the known leisure benefits for individuals with physical disabilities, a lack of literature exists that explores what types of leisure activities are associated with social support, health, and life satisfaction for these individuals. In addition, little research has been conducted in non-Western cultural settings as the majority of previous studies have been focused on leisure benefits among individuals with disabilities living in Western countries (Chun & Lee, 2010; Tomasone et al., 2013). Therefore, the purpose of this study is to examine what types of leisure activities predict social support, health perception, and life satisfaction among Korean individuals with physical disabilities.

## Methods

For this study, data were collected from a purposive sampling of individuals with physical disabilities who resided in South Korea. The total sample consisted of 238 participants: 128 males and 110 females. Their ages ranged from 20 to 80 (Mean = 40.40, SD = 16.7). As an independent variable, a modified version of Ragheb's (1980) leisure participation involvement scale was used to assess the frequency of participating in various leisure activity types. As dependent variables, the Satisfaction with Life Scale (SWLS) (Diener, Emmons, Larson, & Griffin, 1985) was used to examine life satisfaction of individuals with physical disability. Internal consistency for measures in this study was strong (Cronbach's alpha = 0.897). The overall mean SWLS score was 3.62 (SD = 1.40). Social support was measured using multidimensional scale of perceived social support Assessment developed by Zimet, Dahlem, Zimet, and Farley (1988) and Zimet, Powell, Farley, Werkman, and Berkoff (1990). The Cronbach's alpha coefficients were 0.939 for social support from family and 0.960 for social support from friends. Health perception was measured for a single item using a 5-point Likert-type scale and the question was "How would you rate your health at the present time?"

## Results

Hierarchical regression analyses were conducted in order to determine what types of leisure activities were predictors of social support from family and friends, health perception, and life satisfaction. The hierarchical regression analysis for family support showed that gender and age did not predict family support at .05 level ( $F(2, 235) = .922, p = .399$ ); however, the model explained an additional 22.6% of the variance in family support after the six different leisure type were entered ( $F(8, 229) = 8.734, p < .01, R^2$

= .234). Specifically, cultural activities ( $\beta = .272, p < .01$ ) and social activities ( $\beta = .268, p < .01$ ) were significantly related to family support. In terms of social support from friends, the model with age and gender explained 3.3% of the variance ( $F(2, 235) = 3.952, p < .05, R^2 = .033$ ) but only gender was significantly related to friend support ( $\beta = .134, p < .05$ ). After the six leisure types were entered at the second step, the model explained 33.2% of the additional variance in friend support ( $F(8, 229) = 16.487, p < .01, R^2 = .365$ ). Gender was not significantly related to friend support anymore but outdoor activities ( $\beta = .175, p < .05$ ), cultural activities ( $\beta = .296, p < .01$ ), and social activities ( $\beta = .266, p < .01$ ) significantly predicted friend support. The results of another hierarchical regression analysis showed that age did not predict health perception anymore but physical activities ( $\beta = .201, p < .01$ ) and cultural activities ( $\beta = .255, p < .01$ ) were significantly related to health perception. According to the hierarchical analysis for life satisfaction, age and gender did not predict life satisfaction but the model explained 22.2% of the variance in life satisfaction after the six leisure types were entered ( $F(8, 229) = 8.185, p < .01, R^2 = .222$ ). Specifically, cultural activities ( $\beta = .246, p < .01$ ) and volunteer activities ( $\beta = .233, p < .01$ ) were significantly related to life satisfaction.

### **Discussion and Implication for Practice**

The results of the current study show that leisure engagement is positively associated with social support, health perception and life satisfaction. In particular, Korean individuals who have physical disabilities and have participated in cultural activities and volunteer activities reported experiencing life satisfaction. Engagement in cultural and social activities was positively associated with social support from family and friends. In addition individuals who engaged in physical activities and cultural activities are likely to perceive high health perception. As such, it appears that particular types of leisure activities may be related to social benefits, health perception, and life satisfaction among Korean individuals who have physical disabilities.

Prior studies have stressed the importance of participating in social activities as a way of promoting life satisfaction and quality of life among individuals with physical disabilities (Jang, Mortimer, Haley, & Graves, 2004; Levasseur, Desrosiers, & Noreau, 2004). This study suggests that social activities provide a context in which Korean individuals who have physical disabilities can create social connections with others and receive social support from family, friends, and significant others. The results of this study support the previous findings that volunteer activities can improve life satisfaction and social support among individuals with physical disabilities (Steffes, 2004; Taylor & Pancer, 2007). The current study suggests that, through participation in volunteer activities, Korean individuals who have physical disabilities can have rich opportunities to share their aspirations and experiences with other volunteers.

This study suggests that cultural activities such as watching movies and attending concerts and plays play an essential role in increasing social support, health perception, and life satisfaction among individuals with physical disabilities. Leisure service providers and recreational therapists need to implement various types of cultural activities for individuals with physical disabilities so that they can improve their health and wellbeing.

Table 1. Summary of Hierarchical Regression Analysis for Family Support

Variables	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Gender	.191	.182	.070	.081	.166	.030
Age	-.003	.005	-.041	.003	.005	.037
Outdoor Activities				.053	.062	.064
Physical Activities				.095	.056	.125
Indoor Activities				.047	.056	.060
and Hobbies						
Cultural Activities				.234	.063	.272**
Social Activities				.186	.054	.268**
Volunteer Activities				-.123	.064	-.154
R <sup>2</sup>	.008			.234		
F for changes in R <sup>2</sup>	.922			8.734**		

Note. \*  $p < .05$ , \*\*  $p < .01$

Table 2. Summary of Hierarchical Regression Analysis for Friend Support

Variables	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Gender	.383	.187	.134*	.282	.158	.099
Age	-.008	.006	-.095	-.001	.005	-.010
Outdoor Activities				.151	.059	.175*
Physical Activities				.078	.054	.098
Indoor Activities				-.001	.054	-.002
and Hobbies						
Cultural Activities				.266	.060	.296**
Social Activities				.192	.051	.266**
Volunteer Activities				-.028	.061	-.033
R <sup>2</sup>	.033			.365		
F for changes in R <sup>2</sup>	3.952		*	16.48		7**

Note. \*  $p < .05$ , \*\*  $p < .01$

Table 3. Summary of Hierarchical Regression Analysis for Health Perception

Variables	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Gender	.203	.121	.109	.128	.115	.069
Age	-.01	.004	-.174**	-.00	.004	-.072
Outdoor Activities				4		
Physical Activities				3		
Indoor Activities				.105	.039	.201
and Hobbies				.029	.039	.054
Cultural Activities				.149	.043	.255
Social Activities				.020	.037	.042
Volunteer Activities				.014	.044	.026
R <sup>2</sup>	.050			.214		
F for changes in R <sup>2</sup>	6.218**			7.778**		

Note. \*  $p < .05$ , \*\*  $p < .01$

Table 4. Summary of Hierarchical Regression Analysis for Life Satisfaction

Variables	Model 1			Model 2		
	B	SE B	$\beta$	B	SE B	$\beta$
Gender						
Age	-.052	.180	-.019	-.06	.165	-.023
Outdoor Activities				2		
Physical Activities				.003	.005	.043
Indoor Activities				.040	.062	.049
and Hobbies				.103	.056	.137
Cultural Activities				8		
Social Activities				-.09	.056	-.126
Volunteer Activities				.209	.063	.246**
R <sup>2</sup>	.002			.053	.054	.077
F for changes in R <sup>2</sup>	.192			.184	.064	.233**
				.222		
				8.185**		

Note. \*  $p < .05$ , \*\*  $p < .01$



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# HOW DO DIFFERENT ASPECTS OF LEISURE IMPACT BROADER WELL-BEING?

Shintaro Kono, University of Alberta

Gordon J. Walker, University of Alberta

## Introduction and Rationale

Research on the relationship between leisure and well-being has become increasingly common (e.g., Freire, 2013; Newman, Tay, & Diener, 2014; Stebbins, 2015). A critical question that remains unaddressed, however, is: what aspect of leisure—including time availability, activity participation, leisure satisfaction, and “leisure valuation” (i.e., how highly participants value their leisure experiences)—most influences well-being? Answering this query is important for the recreation field as one of its declarations is a commitment to “enhanc[ing] the quality of life for all people” (NRPA, n.d.). On a more practical level, answering this question could help recreation professionals: (a) more efficiently facilitate the improvement of their customers’ well-being, and (b) assess their programs based on their effect on customers’ well-being. Noteworthy here too is the fact that clients with increased well-being are more likely to stay loyal to, and advocate for, their programs (e.g., Alexandris, Zahariadis, Tsorbatzoudis & Grouios, 2004).

The research literature suggests that participation in certain types of leisure activities (e.g., social and physical; Wang & Wong, 2014) as well as satisfaction with one’s leisure life (e.g., Walker & Ito, 2017) predicts overall well-being. Kuykendall, Tay, and Ng’s (2015) meta-analysis confirmed these findings. However, these studies simply compared the standardized effects of different leisure variables on well-being. To the best of our knowledge, there has not been rigorous statistical testing of what specific aspects of leisure have stronger impacts on well-being than others. Another issue is that the current conceptualization of well-being in the leisure literature is limited to so called “hedonic” cognition and emotion (e.g., life satisfaction and positive affect; Kuykendall et al., 2015). Recent cross-cultural studies, however, suggest that eudaimonia or a good life is an important dimension of broader well-being (e.g., Delle Fave, Brdar, Freire, Vella-Brodrick, & Wissing, 2011). In leisure studies, Kono, Walker, and Hagi (2016) recently explored the relationship between leisure and eudaimonic well-being from the perspective of life worthiness, or *ikigai* in Japanese. Nonetheless, it remains unclear what aspects of leisure pertain to this broader conceptualization of well-being.

The purpose of this study is, therefore, to examine what aspects of leisure impact well-being including the eudaimonic domain. In particular, we aim to statistically discern leisure variables of greater import from those with smaller influences.

## Method

Data for this study were collected from 672 university students in Japan through an online survey (50.1% female; average age of 20.14). Four distinct aspects of leisure were measured. *Leisure time* was reported on a typical week day and weekend day, separately. *Leisure activity participation* was measured by 12 items, adopted from Walker, Halpenny, Spiers, and Deng (2011), which asked participants how often they engaged in different types of leisure activities (e.g., outdoor recreation and travel). *Leisure satisfaction* was measured by a single item. *Leisure valuation* was included based on Kono et al.’ (2016) qualitative findings; this construct was measured using 12 items regarding four different values (i.e., enjoyment, effort, stimuli, and comfort). In terms of well-being, *life satisfaction* was measured by the Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). The Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) was used to assess *happiness*. *Positive* and *negative affect* were measured by items adopted from Tsai, Knutson, and Fung’s (2006) inventory (e.g., relaxation, enthusiasm, dullness,

and fear). Lastly, *ikigai* was measured by six items developed based on Kono et al.'s study. The new scales for leisure valuation and *ikigai* were reviewed by experts in leisure studies ( $n = 13$ ) and *ikigai*/Japanese well-being ( $n = 8$ ), respectively. They assessed how well items measure a target construct and other constructs, and both convergent and discriminant validities of the scales were statistically analyzed (Dunn, Bouffard, & Rogers, 1999).

After examining the descriptive statistics, we conducted structural equation modeling (SEM; maximum likelihood estimation) to ascertain leisure variables' effects on the different well-being indicators. We then utilized a programming technique called the phantom model approach (Macho & Ledermann, 2011) to statistically contrast the leisure variables' effects.

## **Results**

Reliability  $\alpha$  coefficients for the well-being measures were: .92 (life satisfaction), .89 (*ikigai*), .88 (happiness), .66 (positive affect), and .51 (negative affect). Although the last two values were relatively low, they were consistent with past studies (e.g., Tsai et al., 2006) and above some recommended cut-offs (Schmitt, 1996). Leisure activity participation and valuation scales also exhibited acceptable levels of  $\alpha$  (i.e., .75 & .92, respectively). All multi-item measures were aggregated using the mean scores. SEM with aggregated observed variables, while controlling for sex and age, indicated a good model fit:  $\chi^2(16) = 17.303, p = .303$ ; GFI = .995; CFI = .999; RMSEA = .011, CI 90% [.000; .038]; SRMR = .024. Standardized structural weights and  $R^2$  coefficients are reported in Table 1. Overall, the four leisure variables impacted *ikigai* most strongly. Significant findings from a series of bootstrapping analyses (5,000 subsamples; .05 level; percentile method) with the phantom model approach are shown in Table 2. Leisure time consistently showed weaker effects than the other leisure predictors. Among the latter, leisure satisfaction was less influential than leisure activity participation and/or valuation, except for negative affect. Lastly, leisure valuation most often outperformed the other predictors.

## **Discussion and Implications for Practice**

One important finding of this study is that the four leisure variables collectively had the largest effect on *ikigai* or life worthiness, compared to the other well-being measures. This discovery suggests leisure's relevance to the eudaimonic aspect of well-being (Stebbins, 2015). Thus, leisure helps participants not only feel good and more satisfied, but also perceive their lives as more worthwhile. This result appears consistent with the field's commitment to enhancing quality of life (NRPA, n.d.), so it should be strongly promoted by leisure and recreation professionals. Our bootstrapping results provided stronger evidence for the larger effects of leisure satisfaction and activity participation, especially compared with leisure time (e.g., Wang & Wong, 2014). However, these variables were often outperformed by our new leisure valuation scale. We recommend that leisure and recreation professionals use this scale to: (a) help their clients identify value in their programs and (b) evaluate their programs based on their ability to do so. Specifically, practitioners should focus on our four measured values of: enjoyment, effort, stimuli, and comfort. Recreation managers could have their frontline staff assess if they are successfully facilitating clients to link their programs with one or more of these values. Designing programs conducive to multiple values should also undergird their participants' valuation (e.g., having enjoyable game components while encouraging them to set goals to strive for). Lastly, recreation practitioners should also periodically ask their customers to evaluate their programs in terms of these four values, and this feedback should then be used to guide program improvements.

Table 1  
Standardized Effects of the Leisure Variables on the Well-Being Measures based on SEM

Predictors	Target well-being variables				
	<i>Ikigai</i>	Life satisfaction	Happiness	Positive affect	Negative affect
Leisure time	-.07*	-.06	-.06	.07*	.05
Leisure participation	.21***	.21***	.18***	.28***	.11**
Leisure satisfaction	.23***	.33***	.32***	.20***	-.14***
Leisure valuation	.42***	.24***	.25***	.24***	-.09*
<i>R</i> <sup>2</sup>	.43	.34	.31	.30	.04

Note. *N* = 672. Sex and age were included as control variables, although non-significant parameters connected to them were later dropped from the model.

\* *p* < .05, \*\* *p* < .01, \*\*\* *p* < .001.

Table 2  
Significant Differences between the Effects of Leisure Variables on a Well-Being Measure based on the Bootstrapping Analyses with the Phantom Model Approach

Endogenous variable	Predictor contrast	Point estimate (SE)	CI lower boundary	CI upper boundary	<i>p</i>
<i>Ikigai</i>	LV vs. LS	0.362 (0.058)	.247	.476	.000
	LV vs. LP	0.212 (0.062)	.092	.333	.001
	LV vs. LT	0.476 (0.045)	.386	.564	.000
	LS vs. LP	-0.150 (0.048)	-.244	-.053	.003
	LS vs. LT	0.115 (0.220)	.072	.156	.000
	LP vs. LT	0.265 (0.038)	.189	.339	.000
Life satisfaction	LV vs. LS	0.161 (0.086)	.000	.717	.049
	LV vs. LT	0.438 (0.070)	.304	.573	.000
	LS vs. LT	0.277 (0.037)	.222	.347	.000
	LP vs. LT	0.429 (0.083)	.265	.589	.000
Happiness	LV vs. LS	0.167 (0.086)	.003	.339	.046
	LV vs. LT	0.425 (0.071)	.288	.565	.000
	LS vs. LT	0.258 (0.037)	.185	.329	.000
	LP vs. LT	0.344 (0.078)	.189	.490	.000
Positive affect	LV vs. LS	0.150 (0.049)	.054	.246	.002
	LV vs. LT	0.231 (0.039)	.157	.310	.000
	LS vs. LP	-0.235 (0.050)	-.332	-.135	.000
	LS vs. LT	0.082 (0.020)	.042	.121	.000
	LP vs. LT	0.317 (0.044)	.230	.401	.000
Negative affect	LV vs. LT	-0.083 (0.042)	-.167	-.001	.049
	LS vs. LT	-0.055 (0.020)	-.093	-.017	.004
	LP vs. LT	0.121 (0.058)	.008	.234	.038

Note. LV = leisure valuation; LS = leisure satisfaction; LP = leisure participation; LT = leisure time. Due to the space limit, non-significant contrasts were not presented.

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# **EFFECTS OF PARTICIPATING IN CAMPUS RECREATION ON EMOTIONAL ATTACHMENT IN HIGHER EDUCATION**

Gi-Yong Koo, Troy University

Anthony W. Dixon, Troy University

Sara Shoffner, Troy University

Tucker Rainey, Troy University

## **Introduction**

Over the past couple of decades, college and university administrators have dedicated their time to enhancing the student's well-being and improving the campus experience by making major financial investments on campus recreation facilities (Huesman, Brown, Lee, Kellogg, & Radcliffe, 2009). Several studies have found that the benefits of student campus recreation participation contribute to an increase in the overall well-being for the individual and better quality of life. More specifically, Ellis, Compton, Tyson, and Bohlig (2002) indicated that quality of life is composed of social, mental, and physical wellness, which can also be enhanced through campus recreation participation. For instance, students may benefit socially from campus recreation since it provides the opportunity for them to meet new people (Henchy, 2011; Dalgarn, 2001). In addition, campus recreation participation gives students an outlet to cope with stress and demands of their course load, improving their overall psychological well-being (Ellis, et al., 2002; Kanters, 2000) Moreover, physical activities by means of campus recreation participation contribute to a healthier lifestyle among students and lead to physical benefits (Henchy, 2011).

While understanding student benefits derived from campus recreation participation is important, students' emotional attachment to the university has been found to positively associate with their attendance, academic effort, academic success, and academic value (Anderman & Anderman, 1991, Goodenow 1993a, Goodenow 1993b, Goodenow & Grady, 1993). Miller (2011) also indicated that students who participate in campus recreation activities have an increase in their sense of belonging to their university. Since students are demanding better campus recreation facilities, it is important to understand what benefits they gain from such improvements. In addition, the extent of those benefits with regard to specific outcomes is relatively unknown, even though student benefits from campus recreation participation have been explored. Therefore, the purpose of this study is two-fold: (1) identify the underlying structure of a relatively large set of social, psychological, and physical benefits students gain from campus recreation participation and (2) determine how social, psychological, and physical benefits impact their level of emotional attachment to the university.

## **Method**

The study used a cross-sectional quantitative survey design. The questionnaires were sent out to the general student population at a Division I public university in the southeastern part of the United States. Out of 284 responses, 164 students (57.7%) who previously participated in campus recreation activities were used for the analysis. The sample consisted of 90 female (54.9%) and 74 male (45.1%) students containing 21 freshmen (12.8%), 38 sophomores (23.2%), 32 juniors (19.5%), 32 seniors (19.5%), and 41 graduate students (25.0%). The majority (60.7%) of the respondents were upper classman with the lowest number of respondents being freshman (16.7%). The majority of students (n=110, 67.1%) lived off campus.

## Results

Exploratory factor analysis (EFA) with varimax rotation of principal axes factors was employed to identify the underlying benefits derived from participating in campus recreation activities. Findings revealed that a three-factor model was acceptable in terms of a reasonable compromise between model parsimony and adequacy of fit, and accounted for 79.60% of the total variance for the benefits. The first factor was labeled as *social benefit*, which explained 27.75% of the variance of well-being. The second factor was labeled as *psychological benefit*, which accounted for 26.21% of the variance of well-being. The third factor was labeled as *physical benefit*, which accounted for 25.64% of the variance of well-being. The internal consistency of extracted benefits also ranged from .89 for social to .93 for psychological benefits, exceeding the recommended .70 threshold (Nunnally & Bernstein, 1994).

A simultaneous multiple regression analysis was also employed to examine if the extracted benefits significantly predicted students' emotional attachment. The results of the multiple regression model indicated that two benefits explained 25.3% of the variance of emotional attachment:  $R^2 = .253$ ,  $F(3, 160) = 18.09$ ,  $p < .001$ . Regression coefficients provided additional support for the notion that emotional attachment was predicted by both social ( $t = 3.59$ ,  $p < .001$ ) and psychological ( $t = 2.77$ ,  $p = .006$ ) benefits, respectively. For instance, a one standard deviation increase in social benefit will lead to a .336 standard deviation increase in emotional attachment while a one standard deviation increase in psychological benefit will lead to a .239 standard deviation increase in emotional attachment, holding all else constant. However, physical benefit was not significantly associated with emotional attachment ( $t = .010$ ,  $p = .992$ ) in this study.

## Discussion

Findings were consistent with the notion that the non-academic environment such as campus recreational activities provides students a variety of opportunities to enhance their social, psychological, and physical well-being. Also, campus recreational activities are a place for students to grow and gain a sense of belonging to the university since students spend most of their time with each other outside of class (Miller, 2011; Korpela, Hartig, Kaiser, & Fuhrer, 2001). While the findings reveal benefits students experience because of campus recreation participation, results also discovered that social and psychological benefits, but not physical benefits, are positively related to students' emotional attachment to the university. Therefore, campus recreation professionals should focus on the social and psychological aspects of campus recreation to maximize students' attachment to the university. Campus recreation departments could provide more social bonding opportunities, such as group activities and trips, on and off campus to increase students' attachment to the university. Furthermore, since college administrators are making significant financial investments to increase retention rates and recruit new students, university recreation facilities should be an integral part of the recruitment and retention strategies implemented by institutions (Bejou & Bejou, 2012; Henchy, 2011).

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# **ASSESSMENT OF SERVICE LEARNING EXPERIENCE IN COSTA RICA**

Pavlna Látková, San Francisco State University

Rachelle Wilson, San Francisco State University

## **Introduction**

In spring 2016, two faculty from the Recreation, Parks, and Tourism Department led 19 students on a short-term study abroad trip to Costa Rica. This international trip was the first in the Recreation, Parks & Tourism (RPT) program and designed to enable students' participation in a service-learning experience and experiential learning abroad. During this course, students engaged in activities designed to cover core values of the RPT curriculum including leadership, stewardship, programming, communication, and sustainability. While in Costa Rica, students participated in a 40-hour service-learning experience including lectures and workshops, facilitation of recreation activities, and cultural immersion with the communities of Tortuguero, Cahuita, and Yorkin Indigenous Reserve. The purpose of this study was to assess students' international service-learning experience during the first RPT 470 "CARE Break".

## **Literature Review**

Participating in service learning provides several positive outcomes, such as fostering civic responsibility, acceptance of diversity, leadership skills, taking roles within the community as dedicated and engaged citizens (Brandell & Hinck, 1997; Howard, Markus, & King, 1993; Shumer & Belbas, 1996; Strage, 2000). RPT 470 is a unique hybrid as it addresses these traditional concepts while including an international travel component. According to Crabtree (2008), the addition of international travel "increases global awareness, builds intercultural understanding and enhances civic mindedness" (p. 18). Participants benefit from service learning by attaining qualities essential to the professional world such as, connection, cooperation, democratic citizenship, and moral responsibility. Research surrounding the outcomes of service learning participation can increase understanding of its value. It is more likely to become an adopted practice if empirical evidence of the value is available (Astin, Vogelgesang, Ikeda, & Yee, 2000; Fisher, 2015).

## **Methods**

During their service-learning trip to Costa Rica, students examined historical, political, socio-cultural, and economic issues that influence community and civic engagement in rural communities. Students experienced being outside their usual environment, the "world" that they live in, which, according to Mazirow (1997), should have an effect on their perspective and perceptions. The perceptions of service learning versus the assessment of experience were examined in this study. Participants included 14 of the 19 students enrolled in RPT 470, an elective course. A mixed method approach was used to collect data. Pre and post semi-structured interviews were conducted via Skype. The length of the interviews ranged from 8-30 minutes in length. Before the trip, participants were asked about motivations and perceptions regarding the service-learning experience. The post trip interview questions asked participants to reflect on their experience. The interviews were transcribed verbatim and coded by two researchers to identify emerging themes. Participants were also given a brief supplemental questionnaire addressing demographic profile. Demographic information was analyzed using descriptive statistics.

## **Results**

The majority of students were females (64%) age 18-24 (79%), of Non-Hispanic origin (70%). Dominant themes generated by pre and post-trip interviews are organized based on the constructs measured. Specifically, pre-trip interview open-ended questions examined motivations for

participating in the class, and expectations, perceived benefits, and concerns of the service learning aspect (Table 1). Questions for the post-trip interview examined the highlights and challenges of the service learning aspect and inspiration to engage further with volunteering (locally and abroad) (Table 2).

**Pre-trip.** Most students indicated that they had never traveled abroad and were excited to be able to do so as part of this class. Many discussed the elements of ecotourism as a motivator and expected to get involved with the community through various volunteer and cultural activities. The expectation that the trip would go beyond a generic tourist experience and become a more meaningful experience was prevalent among the group. Common perceived benefits to participating in this service learning class were that participants would be learning through cultural immersion and gaining perspective by seeing what others see. Lastly, the fact that Spanish is the predominately used language in Costa Rica was a concern for many participants; however, about half of the group indicated that they did not have any concerns going into the trip.

**Post-trip.** Students highlighted overall interactions with people and the communities in Costa Rica. The experience with the children at the school in Tortuguero left a great impression. More specifically, many participants spoke about the children's happiness. The language barrier did arise as a challenge for many of the participants and many spoke of time, or lack thereof, as a limitation. They wanted to be able to engage more and struggled with the return home. Nearly every participant indicated they would return to Costa Rica to further engage with the communities. A few participants indicated their desire to return to Costa Rica and complete an internship at site they had visited. The majority stated they were already inspired to contribute to their own community. What was indicated by most was that their perspective on volunteering had changed as a result of the trip. Additionally, students provided recommendations for the 2017 program such as, spending more time in each area, more hands-on experience and adding natural resource restoration, and student's preparation and facilitation of structured recreational activities that do not rely on language.

### **Discussion and Implications for the Field**

Overall, the service-learning experience in Costa Rica had a positive impact on the individuals who participated and proved that incorporating practical experience into a curriculum can be an effective way of bridging the gap between theory and practice. Participants' motivation evolved from a desirability to travel abroad to an apparent sense of stewardship and desire to give back. Comments such as, "[It gave] me a bigger perspective of the world and how we shouldn't take anything for granted and how we should take care and share our communities," and "I would really love to do an internship out there," demonstrate how participants took the experience and applied it forward in terms of work with their own community or personal and professional development.

RPT Students and professionals alike can benefit from experiences such as the one showcased in this study. According to Hamp (2014, n.d.), "leadership in a volunteer setting can help develop skills needed to become a leader in your organization." Gaining leadership skills through volunteer work combined with the concept of international service learning, an experience that allows the individual to expand global awareness and cultural understanding (Crabtree, 2008), makes for an effective personal and professional development tool when navigating the culturally diverse RPT field. Learning from and taking part in other cultures not only fosters cultural connection and understanding but also innovation in finding ways to make RPT concepts, programs, and institutions relevant for all.

**Table 1. Pre-trip interview results**

Topic	Theme	Supporting Quote
Motivations	Traveling to another country	"I think that it [traveling internationally] is really exciting and that it is a cool opportunity for students that, you know, maybe didn't get to study abroad like myself."
	Experience an Ecotourism trip	"Ecotourism is something that I am really interested in; especially getting the whole experience and seeing how it is played out."
Expectations	Giving back/connecting with the community	"Working with the locals in their community and getting that aspect of it and I'm not just going as a tourist who's just going to be using their resources, but I'm also giving back and giving my time."
	Authentic/meaningful trip	"I think it adds a little more authenticity. Instead of going to tourist places and sightseeing, taking the experience and instead sharing and giving experience."
Benefits	Experiencing and learning about other cultures	"I think a benefit for us visiting them is we get an understanding of how their culture works."
	Firsthand experience through local perspective	"Really getting one on one firsthand experience of what the locals are going through and the things they deal with what they considered important. You're getting more of an inside look of what's going on in Costa Rica instead of just your own vision; you get to see what they see."
Concerns	Language barrier	"My biggest concern is that I don't know any Spanish. So having a communication barrier is going to be difficult."
	No concerns	"No"

**Table 2. Post-trip interview results**

Topic	Theme	Supporting Quote
Highlights	General interaction with the communities	"Just getting involved with the people. Seeing people in the community smile. They seemed to be really thankful of our time and contribution."
	Children's' reaction of happiness	"The highlight was just kind of seeing how happy all the kids were. They were so happy and everyone there and everyone there was happy. They had, what felt like, nothing and they were just so grateful."
Challenges	Language barrier	"Definitely the language. It really was unfortunate to have to call over a few people just to have a small conversation. We tried but I definitely wish I knew more."
	Lack of time	"Maybe just needing longer days in some places."
Inspiration to continue working with the communities in Costa Rica	Desire to go back and engage more	"I think I definitely want to go back, especially to visit some of the places that were there and spend more time learning about the culture."
	Internships	"I would really love to do an internship out there. They have one for the turtle conservancy that would be cool but I think I'd rather work with the Bribri tribe."
Inspiration to engage within their local community		"Well I've always been kind of connected with my community and I've always been inspired to want to do that kind of work. That's kind of why I've gone back to school and that's what I'm studying. I am more focused on my community at the moment, so yeah, I guess it kind of gave me a bigger perspective of the world and how we shouldn't take anything for granted and how we should take care and share our communities."

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## **LEISURE PERCEPTIONS AND ATTITUDES TOWARD RETIREMENT**

Chungsup Lee, University of Illinois at Urbana-Champaign

Jaesung An, University of Illinois at Urbana-Champaign

Laura Payne, University of Illinois at Urbana-Champaign

### **Introduction**

Today retirement is no longer an unexpected life transition, but an ordinary life event (Lehr et al., 1998; Turner et al., 1994). Despite the prevalence of retirement, it is still acknowledged as a major life transition for older adults, since it affects their life in many ways (Barnett et al., 2012). For example, some might experience an identity crisis, while others experience changes in their financial situation and social relationships (Adams & Rau, 2011; Glass & Flynn, 2000). Of that, extended leisure time is a significant change that many retirees experience, due to leaving full-time work. However, since simply having more leisure time does not guarantee retirees' health and well-being, and how they perceive or utilize this time could determine the quality of life in later life (Wang et al., 2014).

In fact, many leisure researchers have emphasized the importance of leisure for retirees (Hawkins et al., 2004; Iwasaki et al., 2010). Engaging in meaningful leisure activities could not only contribute retirees' physical, psychological and social well-being but also contribute to identity or purpose of life (Knight & Ricciardelli, 2003; Mannell, 2007). Despite the evidence that emphasizes the benefits of leisure, there are few leisure-focused retirement planning programs for pre-retirees (Dupuis & Alzheimer, 2008). The majority of the existing programs are focused on financial management and only a few retirement planning programs are merely including leisure as a section (Elder & Rudolph, 1999; Lee & Law, 2004). In order to assist retirees to be part of more leisure programs, this study examined whether pre-retirees' perception on leisure is related to their attitude toward retirement (ATR). Specifically, leisure attitudes and leisure self-efficacy were used to measure leisure perception, since they are essential indicators of leisure behaviors and experiences (Brown & Frankel, 1993; Hawkins et al., 2004; Ragheb & Tate, 1993). Further, the following research questions were examined: a) Do socio-demographics (i.e., age, gender, education, and health perception) have a significant association with ATR?; b) Do socio-demographics have a significant association with leisure resources (i.e., LA and LSE)?; c) Are leisure resources positively associated with ATR?; and d) What aspects of leisure enhance a positive ATR?

### **Method**

A total of 210 respondents were recruited through an on-line survey vendor based on the following participant criteria: the participants are a) aged between 55 and 75; b) considering themselves, not retirees and c) residing in Illinois State. The participants were asked to complete the on-line survey regarding four main domains: a) socio-demographics; b) leisure attitudes including cognitive, affective and behavioral components; c) leisure self-efficacy and d) attitudes toward retirement including gains from retirement and losses from retirement. Leisure attitudes were measured with a short version of Leisure Attitudes Scale-Short version (LAS-SV; Teixeira & Freire, 2013). It consisted of 18-items (6-items for each component) and measured with 5-point Likert scale (where 5 is the most positive LA). Leisure self-efficacy was assessed with the 8-item New General Self-efficacy (NGSE) scale (Chen, Gully & Eden, 2001) using a 5-point Likert scale. However, each item was modified to help respondents to answer based on their leisure engagement. Attitudes toward retirement, the dependent variable of the study, were measured with the 20-items ATR scale using 5-point Likert scale (Anson et al., 1989). This consisted of gains

from retirement (9-items) and losses from retirement (11-items). All the main factors showed an acceptable reliability (higher than Cronbach's of .88). To answer the research questions, the data was analyzed using Pearson correlation analysis and hierarchical regression analysis.

### **Findings**

The mean age of participants were 61.1, 60.0% were female and 58.1% were married. About 45.2% had a bachelor's degree or higher and 88.5% of respondents perceived their health either "good or higher". Moreover, the respondents scored an average of 4.01 on LA. Specifically, the cognitive component ( $m = 4.35$ ) was highest followed by the affective ( $m = 4.32$ ) and the behavioral component ( $m = 3.41$ ). The average score of LSE was 3.96, while the average score of ATR was 3.70 (3.64 for Gains from retirement and 3.77 for losses from retirement).

Interestingly, results demonstrated that none of the socio-demographic variables were significantly correlated with ATR. This indicates that socio-demographic status was not a significant indicator of their ATR for the respondents. In contrast, health perception and the level of education showed significant associations with both LA and LSE. Specifically, health perception ( $r = .22, p < .01$ ) was a slightly stronger predictor of LA than the level of education ( $r = .18, p < .01$ ), while health perception ( $r = .32, p < .01$ ) was a stronger predictor of LSE than the level of education ( $r = .22, p < .01$ ) (Table 1). When using hierarchical regression analysis, the level of education ( $b = .13, p < .05$ ) was only a significant indicator of ATR among socio-demographic variables. Moreover, while leisure variables account for 25% of the variance in ATR, only the affective component of LA ( $b = .30, p < .01$ ) was the significant predictor of ATR (Table 2). This shows that an individual's emotional feelings about the leisure activities and experiences are a decisive aspect than other aspects to explain ATR.

### **Discussion**

The primary finding of this study is that how an individual feels about their leisure strongly contribute how an individual view their retirement. This result was interesting since it contradicts previous literature that SES is an important factor in shaping ATR (Elder & Rudolph, 1999; Lee & Law, 2004). One of the possible explanations is that since retirement is still a future event for the pre-retirees, they might not have a concrete idea of what will happen in retirement, but the general impression of retirement. In this sense, while a respondent's feeling about leisure could shape their ATR, which has extended leisure time, LSE might not influence ATR because it could be vary depending on the resources and contexts in actual retirement. Still, further research is needed to understand the relationship between leisure variables and ATR in depth, since some other issues such as sampling issue (only recruited people who have access to the Internet) might influence the results.

### **Implications for Practice and Conclusions**

This study demonstrated that how an individual feels about their leisure is a significant predictor of shaping how we view retirement. This result could advocate the importance of developing more leisure-focused retirement planning programs for pre-retirees to prepare their retirement. In particular, due to the importance of leisure attitudes, practitioners who develop retirement planning programs could consider focusing on enhancing a positive leisure attitude so that they could develop a positive image about their retirement, which eventually could help to cope with retirement transition better and satisfy with their retirement.

Chungsup Lee, University of Illinois at Urbana-Champaign, 217-419-2485, [lee782@illinois.edu](mailto:lee782@illinois.edu)

Table 1. Correlations Between All Variables

	Age	Sex	Education	Health	LA	LSE	ATR
Age	1						
Sex	.01	1					
Education	.10	-.04	1				
Health	.07	-.02	.19**	1			
Overall LA	.04	.08	.18**	.22**	1		
Overall LSE	.03	-.03	.20**	.32**	.71**	1	
Overall ATR	.08	.09	-.06	.07	.47**	.34**	1

*Note.* LA=Leisure Attitude, LSE=Leisure Self-Efficacy, ATR=Attitude Towards Retirement; \*  $p < 0.05$  ; \*\*  $p < 0.01$

Table 2. Hierarchical Regression Analyses Predicting Attitudes Toward Retirement

Variables	R <sup>2</sup>	Standardized Beta	t value	p
Socio-Demographic	.01			.247
Age		.07	1.18	
Sex		.04	.70	
Education		-.13	-2.13	
Health		-.04	-.66	
Leisure Variables	.26			.000
Leisure Attitudes (Cognitive)		.20	1.83	
Leisure Attitudes (Affective)		.30	2.68	
Leisure Attitudes (Behavioral)		-.02	-.30	
Leisure Self-Efficacy		.09	1.04	

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## **SPORTS BASED SERIOUS LEISURE AND SCHOOL ADAPTATION**

Chungsup Lee, University of Illinois, Urbana-Champaign

Sohye Kim, University of Illinois, Urbana-Champaign

Megan Owens, University of Illinois, Urbana-Champaign

Toni Liechty, University of Illinois, Urbana-Champaign

### **Introduction**

Due to increasing numbers of international students in the U.S., adaptation to school for these students has become an important issue (Andrade, 2006). Previous leisure literature has suggested that engaging in leisure can benefit international students' school adaptation such as by relieving acculturation stress and facilitating friendships (Iwasaki & Mannell, 2000; Li & Stodolska, 2006). In particular, due to its' unique characteristics, serious leisure may provide benefits to international students as they adjust to college (Heo & Lee, 2007; Lee et al., 2011). Serious leisure refers to engagement in or pursuit of a leisure activity with a high level of skill, experience, and fulfillment so as to be similar to a career (Stebbins, 2007). Stebbins (1992) stated that serious leisure could offer both social and personal benefits. Specifically, because of frequent and active involvement, serious leisure participants have opportunities to interact with other participants and build strong social bonds with them (Heo, Stebbins, Kim & Lee, 2013). Furthermore, those engaging in sport-based serious leisure activities have reported a range of benefits to personal health and wellness including increased physical activity, feelings of accomplishment, and self-actualization (Brown, 2007; Siegenthaler & O'Dell, 2003). Little research to date, however, has explored sport-based serious leisure among international students. Therefore, this study explored the experiences with sport-based serious leisure and school adaptation among Korean graduate students at a U.S. university.

### **Methods**

Participants were recruited from several sport-based student clubs at a Midwestern university in which Korean students comprise the majority of members. The criteria for participation focused on individuals that (a) had Korean citizenship, (b) had a clear personal primary leisure pursuit; (c) were engaging in the leisure activity with consistency and regularity and (d) were affiliated with the University. The final sample included 15 graduate students who ranged in age from 28 to 38. Participants played several different sports including tennis (n = 6), basketball (n = 4), golf (n = 2), baseball (n = 1), weight training (n = 1), and cycling (n = 1). Participants were arranged into five focus groups which were conducted in Korean and lasted 60 to 120 minutes. Data analysis involved open, axial, and selective coding (Charmaz, 2006). The first two authors, whose native language is Korean, conducted open and axial coding individually and then collaboratively refined categories into overarching themes through selective coding. At this point, the first two authors translated the coding framework and supporting quotations into English, and the results were reviewed by the third and fourth authors, whose native language is English. To enhance trustworthiness, researchers engaged in note-taking, memo-writing, peer-debriefing, and member checks (Creswell, 2014).

### **Findings**

Regarding the roles serious leisure played in school adaptation, four themes emerged: familiarity within all the changes, developing a strong community, coping with stress, and an opportunity for self-development. First, while the participants described numerous changes that they encountered upon their arrival in the U.S., serious leisure activities enabled participants to feel a sense of connection to the everyday life they had in Korea. This sense of familiarity led the participants to experience a feeling of security with others serious leisure participants and more

comfortable interaction. Second, after coming to the U.S., participants felt they had to build their social network from scratch. Engaging in a serious leisure activity provided common ground (i.e., interests in the same activity) for making new friends and helped initiate conversation. The participants reported that after initially developing a friendship, frequent and regular social interactions during the serious leisure activity led them to develop strong bonds or a sense of brotherhood with other serious leisure participants. Third, the majority of the participants reported that engaging in serious leisure helped them to cope with stress. The participants viewed their serious leisure activity as a place of refuge from stressors. Specifically, engaging in serious leisure relieved stress by allowing them to rejuvenate themselves to then refocus on their work and also by improving their mood. Furthermore, some participants posited that serious leisure provided relaxation and mental distraction from frequent stress, since the context of serious leisure is familiar and comfortable to them. Fourth, for some participants, serious leisure was a place for personal growth outside of school. They felt that engaging in serious leisure activities could help them to build a well-balanced life by regularly participating in leisure activity. Also, in the serious leisure context, participants were more likely to experience accomplishments on a regular basis by mastering skills, winning games, or performing well.

### **Implications to Practice**

One of the most valued elements of serious leisure for participants in this study was its potential to help them create a strong community. Participants faced a lack of social support as they were far away from their previous social networks and experienced some difficulties in developing relationships with host students (Smith & Khawaja, 2011). However, through serious leisure engagement, participants were able to develop a deeper level of friendship, to engage more frequently in social events, and to share their private concerns with other international students. Similarly, the findings suggest that participating in serious leisure facilitated stress coping for international students by providing opportunities for achievement and a space that enabled them to focus more on the activity in the moment rather than the stressors of work and school (Genoe & Liechty, 2016).

The findings have important implications for professionals who work in campus recreation and community sport. The findings provide evidence as to the value of campus recreation for improving student retention and adaptation for international students that may be valuable in maintaining budgets during times of fiscal stress. The findings also suggest that campus recreation programs may be more effective in meeting the needs of international students by facilitating serious leisure (e.g., through frequent scheduled sessions and opportunities for skill development) and by promoting a sense of community among participants. In particular, for international students from collectivistic societies such as Korea (Markus & Kitayama, 1991), being a member of a majority-Korean club may provide a safe space to improve social wellness. Similarly, the findings highlight the value of sport-based serious leisure for the wellness of international individuals as they adapt to a new environment. Community-based recreation programmers might highlight these benefits in their promotional materials to better attract recent immigrants to programs and events.

In conclusion, this study provided insight into how engaging in serious leisure could contribute Korean graduate students' school adjustment in diverse aspects. It also suggested practical implications for universities and leisure service providers as they provide a welcoming and supportive environment for international students.

Chungsup Lee, University of Illinois at Urbana-Champaign, 217-419-2485, [lee782@illinois.edu](mailto:lee782@illinois.edu)

Table 1. Participants' Information

	Pseudonyms	Age	The first year in school	Identified serious leisure activity	Years of Playing
1	Jihyun	30	2009	Tennis	10
2	Chanho	28	2011	Cycling	9
3	Hoonha	38	2011	Basketball	21
4	Jungho	31	2010	Basketball	4
5	Namsan	30	2012	Basketball	14
6	Sewol	32	2010	Basketball	15
7	Jaesuk	33	2012	Golf	2
8	Bosung	33	2011	Golf	6
9	Myungsoo	33	2009	Tennis	7
10	Donghyun	31	2009	Tennis	5
11	Junhyun	32	2013	Weight training	10
12	Jongwook	33	2014	Tennis	5
13	Junghyun	29	2012	Tennis	4
14	Hyunjin	28	2014	Tennis	3
15	Sungkeun	28	2014	Baseball	3

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## **OLDER ADULTS' LEISURE ACTIVITIES: PREDICTORS OF SOCIAL RELATIONSHIPS AND POSITIVE AFFECT**

Sunwoo Lee, Palacký University in Olomouc

Jungsu Ryu, Texas A&M University

Jinmoo Heo, Texas A&M University

This study examined the extent to which leisure activities were related to positive social tie and emotional well-being among older adults. A 6-year longitudinal study found that changes in social involvement were significantly related to health and positive affect among older adults (Huxhold, Fiori, & Windsor, 2013). Studies show that leisure time activities contribute to the maintenance of social relationships in later life by encouraging and providing opportunities to re-build social network within a variety of preferred activities (e.g., Ku, Fox, & Chen, 2016; Toepoel, 2013). Also, older adults who frequently participate in leisure activities (e.g., listening to music) were more likely to maintain positive emotions and less likely feel lonely (Laukka, 2007). In this respect, we note that social relationships and leisure engagement are closely associated with positive affect and psychological well-being in older adults. According to Huxhold, Miche, and Schüz (2014), for example, engaging in social activities with family and friends contributed to positive affect in older adults. Building on this idea, we hypothesized that leisure activities significantly influenced a development of social relationships, which, in turn, contributes to positive affect among older adults. Study findings will reinforce the importance of the opportunity for the leisure time activities of everyday life in older adults who are more likely to experience a lack social integration and emotional support. Also, findings will be used to better promote different types/levels of leisure activities in the relation to the quality of social relationships and positive affect.

### **Methods**

A secondary data analysis was employed using a sample of Health and Retirement Study (HRS) 2014-2015 in USA. Final study sample comprised a total of 10,700 individuals, aged over 65 years (Mean = 76.28,  $SD = 7.75$ ). The study sample comprised 41.0% males and 59.0% females. Caucasians accounted for 80.0%, 15.0% were Black or African Americans, and 5.0% were others. Among the respondents, 9.9% considered themselves Hispanics. Among the respondents, 53.6% were married, 12.6% were separated or divorced, 30.1% were widowed, and 3.4% reported they were never married.

A total of 20 questionnaire items were used to assess the frequency of the pastime activities. Using a seven-point Likert scale, survey participants were to select an answer ranging from 1 (*never/not relevant*) to 7 (*daily basis*). In the analysis, we identified four different activity categorizes according to the characteristics of each activity: outdoor and physical activities; hobbies and indoor activities; cultural activities and education; and social and community activities. To assess social relationships, study respondents were asked to indicate how they felt about their relationships with partner/spouse, children, and friends (e.g., "I can depend on my partner/children/friends") using a four-point Likert scale ranged from 1 (*not at all*) to 4 (*a lot*). Respondent were also asked to rate how often they communicated with their children and friends (e.g., speaking on the phone, meeting up, and writing or emailing). The responses ranged from 1 (*less than once a year or never*) to 6 (*three or more times a week*). In order to measure positive affect among the respondents, a total of 12 multi-item scales from Positive and Negative Affect Schedule (PANAS-X) were included. Respondents were asked to indicate how much of the time they felt in regarding to each of descriptive emotions during the past 30 days (e.g., calm and

peaceful, happy, and satisfied). All items were measured using a four-point Likert scale ranged from 1 (*none of the time*) to 4 (*all of the time*).

To test the hypothesized relationships between the study variables, standardized estimates of path coefficients between the predictor variables were examined. The mediating effect of social relationship between activities engagement and positive affect was tested. Covariates in the analyses included major predictor variables and demographic variables such as gender, race/ethnicity, education level, and marital status.

## **Results**

Results indicated that across different leisure activities indicators, there were significant path coefficients toward positive affect; outdoor and physical activities ( $p < .001$ ), hobbies and indoor activities ( $p < .001$ ), cultural activities and education ( $p < .001$ ), and social and community activities ( $p < .001$ ). Leisure activities were also significantly associated with the quality of social relationships with spouse/partner, children, or friends. For example, outdoor and physical activities were related to spouse/partner's behavior ( $p < .001$ ), and indoor and cultural activities were related to support from children ( $p < .01$ ). Indoor and social activities were significantly associated with the relationship with friends ( $p < .001$ ). We also found that perceived social relationships from their spouse/partner, children, and friends significantly influenced positive affect among the older adults ( $p < .001$ ). Additionally, social relationships were a significant mediating factor in the association between leisure activities and positive affect. This might indicate that leisure activities participation facilitates the quality of social relations, which, in turn contributes to positive affect among older adults.

## **Discussion and Implications for Practice**

Our study highlights the positive association between specific types of leisure activities and social and emotional well-being among older adults. Interestingly, outdoor and physical activities (e.g., walking, exercise, and gardening) were the most reported leisure activities, and also the strongest predictor of the positive affect among the respondents. It is accord with existent literature that reinforces the significance of physically active forms of leisure for older adults (e.g., Bauman et al., 2016). Our findings indicate that outdoor and physical activities were significantly related to emotional support from spouse/partner. This might suggest that older adults' motivational force to participate in outdoor and physical activities can be improved in their supportive exchanges between intimate partners. Future research should examine the impact of the different levels of outdoor and physical activities (i.e., light, moderate, vigorous) on the different quality of social relationships and positive affect among older adults.

Our work was unique expanding the literature by concurrently investigating the association between different leisure activities and social network characteristics. Findings suggest that perceived social supports from family and friends increase the prevalence of outdoor and leisure-time physical activities and emotional well-being (Böhm et al., 2016; Ku et al., 2016). In our model, the path from spouse/partner's support to positive affect was also significant with a larger magnitude. In the promotion of active ageing, we must evaluate the importance of family's role in providing support. In addition, participating in social and community activities (e.g., volunteer or charity work) was positively associated with social relationships with friends. This might suggest that we ought to better promote social and recreational programs in a community to help older adults feel a sense of belonging and create identifiable social role in later life.

Sunwoo Lee, Faculty of Physical Culture, Palacký University in Olomouc, Třída Míru 115, 77111 Olomouc, Czech Republic; +420 777 31 6761; [sunwoo.lee@upol.cz](mailto:sunwoo.lee@upol.cz)

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# **USING OBSERVATION TO IMPROVE COACH-CREATED CLIMATE AND YOUTH DEVELOPMENT**

Eric Legg, Arizona State University

Aubrey Newland, California State University, Chico

## **Introduction/Rationale**

Youth sport participation represents a valuable arena where positive youth development (PYD) may occur (Fraser-Thomas, Côté, & Deakin, 2005). In contrast to deficit approaches that view youth as a broken entity, PYD shifts the emphasis to creating positive skills, attributes, and behaviors that empower youth to becoming thriving members of their community (Scales, Benson, Leffert, & Blyth, 2000). Participation in youth sport may be especially powerful in PYD because participants are generally voluntarily engaged in activity that provides challenge and structure (Larson, 2000).

Youth sports exist within an environment of multiple influences, including parents, coaches, and administrators. Each of these roles is instrumental in determining if outcomes are positive or negative (Strachan, Côté, & Deakin, 2009). The coach, in particular, plays a crucial role in the experience of the youth sport participant, and in creating the overall motivational climate (Weathington, Alexander, & Rodebaugh, 2010). Motivational climate represents the overall atmosphere that influences what motivational goals participants adopt (Roberts, 2012). Traditional approaches to motivational climate emerge from achievement goal theory (AGT) and define two primary motivational climates. In a mastery climate, participants are encouraged to adopt goals that focus on skill mastery, effort, and improvement. In contrast, the primary goal of performance climates is winning. A large body of research supports an association of mastery motivational climates with more positive outcomes (Roberts, 2012).

Recently, Duda (2013) incorporated self-determination theory (SDT) into current views of the motivational climate. Broadly, SDT states that individuals achieve their highest well-being when three essential needs are met – competence, autonomy, and relatedness (Deci & Ryan, 2000). Using both AGT and SDT, Duda (2013) states that motivational climates can be either empowering or disempowering. Empowering climates include elements of a mastery climate as well as social support and autonomy-support. Thus, in an empowering climate, coaches not only emphasize skill mastery, but also provide social support, give players choices and options, and listen to players' views and feelings without judgement. In contrast, in disempowering climates coaches focus on outperforming the opponent, and controlling players. Given the positive associations of mastery climates and need fulfillment to positive outcomes, it is logical that an empowering climate would also correspond to positive outcomes, however, this relation is largely untested.

Despite the likely positive associations with empowering climates, the high dropout rates of youth sport participants suggests that many coaches continue to create an climate that may be disempowering (Butcher, Linder, & Johns, 2002). One possibility for this is that coaches may be relatively unaware of the environment they create, as well as the harmful effects of that environment. Thus, one possible way to improve the coach-created climate is to provide coaches with observational feedback. Observational feedback has improved behaviors in a number of settings, including sports settings (Cushion & Jones, 2001). Therefore, observing coaches and providing feedback on the climate they create may help coaches create a more empowering climate. Therefore, the purpose of this research was to 1) assess the relation of empowering and disempowering climates to PYD; and 2) examine the difference in coach-created climate between coaches who receive observational feedback and coaches who do not receive the feedback.



**Method.** Data were collected from 56 participants – representing 75% of the total population in a youth basketball league in a rural community in the Southwest United States. Half of the coaches were randomly selected to be observed by members of the research team. Observations were based on a checklist of behaviors related to the five elements of the motivational climate. Coaches were provided general feedback via e-mail in the week following the observation. At the conclusion of the season, participants on all eight teams completed a questionnaire. The questionnaire included two scales designed to measure PYD - Positive Youth Development, Very Short Form (PYD-VSF; Geldhof et al., 2014), and the Youth Experiences Survey for Sport YES-S; MacDonald et al., 2012) The PYD-VSF was used to measure PYD in the form of the Five Cs – competence, confidence, character, caring, and connection (Lerner, 2007), while the YES was used as a measure of PYD based specifically on benefits derived from participating in sport. In addition, the Empowering and Disempowering Climate Questionnaire (Appleton, Ntoumanis, Quested, Viladrich, & Duda, 2016) was used to measure athletes' perception of the coach-created climate.

**Results.** Two regression models were tested to determine whether elements of the motivational climate were associated with PYD. Model 1 included PYD as measured by the PYD-VSF as the outcome variable, and four of elements of the climate as predictors (social support was dropped from the model due to reliability concerns). This model explained a significant amount of variance ( $p=.01$ ;  $r^2=.25$ ). Further probing of the model, however, indicated that only autonomy-support was a significant predictor of PYD ( $p<.01$ ;  $\beta=.42$ ). In other words, the more a player perceived that their coach created an autonomy supportive environment, the more that player reported indicators of the 5Cs. Model 2 included PYD specific to sport participation as the outcome variable, and the four elements of climate as predictors. This model also explained a significant amount of variance ( $p<.01$ ;  $r^2=.43$ ). As with model 1, further probing indicates that only autonomy-support was a significant predictor of the outcome ( $p<.01$ ;  $\beta=.54$ ).

To address the second purpose, a MANOVA was conducted to see if coaches who were observed scored differently on elements of the coach-created climate than coaches who were not observed. Results indicate no significant differences between the two groups ( $p=.13$ ).

**Implications for Practice.** Results of this study lead to several practical applications. First, the strongest predictor of PYD was autonomy-support. Thus, coaches who focus on effort and improvement, answer player's questions, provide explanations for the things they do, and encourage players to take initiative are more likely to enhance PYD. Coaching education programs, therefore, may want to emphasize this area of coaching. While traditional coaching education programs may focus on mastery climate, and social support, the addition of autonomy-support may be more impactful in achieving PYD outcomes. Second, though, there was not a statistically significant difference in the coach-created climate, observed coaches did score higher on the empowering elements of the climate and lower on elements of the disempowering climate. Thus, it is too early to give up on observation as a potential means of improving the climate. Further research with larger samples may provide additional evidence as to the value of this approach.

Eric Legg, School of Community Resources & Development, Arizona State University, (602) 496-1057, eric.legg@asu.edu

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## **(RE)PRODUCTIVE WOMEN IN THE (RE)CREATION VOCATION**

Ms. Anna Pechenik Mausolf, Texas A&M University

Dr. Brooke N. Burk, Minnesota State University, Mankato

Dr. Linda Oakleaf, Missouri Western State University

### **Introduction/Rationale**

Women are uniquely challenged with balancing multiple identity roles. Historically mothers, partners, and friends; for some women, these identities also include recreation professional. The unique challenges presented to mothers pursuing a career have been explored previously (Trussell, 2015; Ward et al., 2004) but our breadth of knowledge on navigating this journey requires further inquiry. For example, According to Ward et. al., women are challenged with balancing dual roles as a mother and academic due to the demands of both. Unfortunately, in this instance there are limited policies in place for scholars in higher education to succeed as both parents and educators/researchers.

Recognizing the unique issues that women face in fulfilling their multiple roles at home and work, the authors set out to examine structural barriers and supports faced by mothers on the tenure track by interviewing recreation and park educators. To explore the unique connection between mother and recreation professional, we used a third wave feminist lens guided by scholarship in *Third Wave Feminism: A Critical Exploration*. This theory states that within multiple messy and complex identities, women can take knowledge that is gained from lived experiences (most notably, observing their female role models) to “transform social institutions from within” (Spencer, 2004, p.11).

### **Methods**

The co-authors employed a qualitative research design grounded in the Oral History tradition. Participants (N=17) were identified by the co-authors through professional association and snowball sampling to include women employed full-time in the field of recreation, parks, leisure, tourism, or related studies. In the summer of 2016, participants were contacted electronically for telephone interviews. The interviews consisted of 11 formal questions, with audio recordings ranging in length from 29 to 65 minutes. The interviews were digitally recorded and later transcribed by the co-authors, who then verified the accuracy of the transcriptions with the participant and fellow co-authors for internal consistency.

Emergent themes were grouped into categories by their relevance to the research framework and applicable topic of discussion. Within the theoretical framework of third-wave feminism, these major themes and subthemes were coded and analyzed. While each co-author worked independently, all three communicated consistently with the others by utilizing and replying to comments in a collective working document file and also meeting regularly (approximately every five weeks) in an online medium. Open dialogue and collegiality between researchers facilitated efficient dialogue concerning potential issues of positionality (as all three co-authors are mothers) and decisions about analysis.

### **Results**

Analysis of the transcripts revealed three major themes: a) Time (im)balance, b) perceiving success, and c) support system structures. The first major theme, time imbalance, was influenced by the presence of a perceived “second shift” with responsibilities at home, intensive mothering practices, and the amount and increasingly faster pace of fulfilling expectations at work. Secondly,

mothers reported that perceiving success was related to self-imposed and social pressures of working and parenting properly. The final major theme, support system structures, included findings related to employer policies and workplace culture.

Time imbalance was found to be inclusive of five subthemes: Employment appreciation, longitudinal identity negotiation, scholarship development, responsibility and identity balancing skills, and an alternative mindset of seeking harmony. The second major theme, perceiving success, is also inclusive of five subthemes, as follows: Others' expectations of the participant, concern for others' perceptions of the participant, feelings of judgment, colleagues' support, and work speed-up in the corporate university. Finally, support system structures is comprised of seven subthemes in the sample studied for this research. These subthemes are returning to work after childbirth or adoption, work performance, combining personal and professional spaces, individual department culture, serving as role models for students, communicating with academic administration, and consequences for the university of becoming a "family-friendly" workplace.

### **Implications for Practice**

Extending upon the current literature in this area, these working mothers in recreation, park, and leisure education were troubled with the blending, blurring, and compartmentalizing of their personal and professional roles. Study participants also expressed the need for institutional changes to support parents professionally. Unfortunately, many educated, trained, productive women leave the workforce after becoming mothers not of their own choice, but because they feel that they are unsupported and thus pushed out of their employment roles (Stone, 2007).

This research identified potential solutions that could be employed to address current and future constraints. In the presentation, researchers will address ten specific strategies which emerged from the data which can harmonize personal and professional happiness as a full-time working mother in parks and recreation. Practitioners will also discuss ways to specifically provide effective support for work colleagues who are parents. Findings from this study will help employers in the recreation, parks, and leisure profession retain valuable employees.

Ms. Anna Pechenik Mausolf, Texas A&M University, (231) 414- 4430, [Mausolf@tamu.edu](mailto:Mausolf@tamu.edu)

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Dix, L. S. (2004). Academic Motherhood: Managing Complex Roles in Research Universities. *The Review of Higher Education*, 27(2), 233–257. <http://doi.org/10.1353/rhe.2003.0079>

# **IMPACT ASSESSMENT OF YOUTH KNOWLEDGE AND ATTITUDES TOWARD WATER SAFETY: AN UPDATE**

William D. Ramos, Indiana University

Austin R. Anderson, University of Southern Indiana

Angela K. Beale, Temple University

## **Rationale**

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

This investigation was conducted as an extension of a pilot study performed in 2015 and 2016, inspired by the American Red Cross Centennial Campaign, to examine the impact that Learn to Swim (LTS) programs may have on behaviors related to key water safety messages taught within the program. These results are presented as a follow-up to the initial study, presented in 2016. The study employed the Reasoned Action Approach (RAA; Fishbein & Ajzen, 2010) which was determined to be a valid means of exploring the issue because predicting how an individual will behave around the water is a key factor in drowning prevention. Through examination of the impact of these programs, researchers and practitioners alike can begin to assess the effectiveness of traditional programs in creating attitudes, intentions and norms toward water safety to better prevent aquatic accidents.

## **Methods**

A pre/post pictorial survey instrument grounded in the RAA was used to collect data regarding water safety education with youths ages 5-10. The survey was administered by reading it aloud to manageable groups of youths similar in age. The approach was designed to examine subject response and measure attitudes, intentions, and beliefs. The RAA does this through the examination of 4 domains: attitude toward the act, intention, perceived norms and self-efficacy. The water safety learning objectives highlighted in the study were derived from those outlined in the American Red Cross LTS program. Topic areas included: (a) wearing and use of a lifejacket, (b) calling for help, (c) supervision, (d) presence of lifeguards, (e) recognition, (f) water competency, and (g) rescue. This study was sanctioned through the principal investigator's Institutional Review Board.

Data was collected at six city sponsored summer camps within the central and southern region of Florida, as well as three locations in Atlanta, GA. Timing was determined to intercept subjects just prior to beginning swim instruction sessions. The secondary round of data collection occurred to coincide with the conclusion of summer LTS programs and camps.

## **Results**

All subjects completing one round of data collection that participated in the LTS program were used for an overall view of responses (n = 586). Only those subjects who completed both

the preliminary and secondary phases of data collection were included for the pre/post comparative analysis (n = 141). Subjects who completed both surveys but did not participate in swim lessons served as the control group for the study (n = 20). As a result of the pre/post analysis, significant differences were found in subject survey scores in items related to supervision, rescue behaviors and perceptions of water competency ( $p < .05$ ). This indicates that, at the moment and within this group, the LTS program had a positive effect on attitudes, intentions, and beliefs about safety messages within those LTS knowledge areas.

When examining the data further, there were several RAA domains within these knowledge areas that emerged as significant. With regards to items related to supervision, the intention domain area was significant, indicating that the LTS program had a positive effect on the intention of participants to not swim alone. Within the items related to rescue, the perceived norm domain area was significant, indicating that the LTS program had a positive effect on what the participants felt their parents and friends wanted them to do in aquatic emergency situations. Within the items related to water competency, the intention and self-efficacy domain areas were significant. This indicated that the LTS program had a positive effect on the intention of participants to continue to take swim lessons, and a positive effect on the participants' evaluation of their ability and confidence in performing basic swimming skills.

### **Discussion**

The information presented from this pre/post test data provides valuable discussion points about the effectiveness of water safety messages within the American Red Cross LTS Program for youth participants. Results from this study indicates that, participation in the LTS program does have positive effects on attitudes, intentions and believes about water safety messages, particularly within the supervision, rescue, and water competency knowledge areas. This study also indicates that those interested in the safety and education of youth participants within aquatic settings would be well served by increasing the attention and education given to ensuring adequate water safety messaging, particularly within the structure of formalized swimming lesson programs.

### **Application to practice**

Results from this work could be used to inform key management policies aimed at rethinking the way in which swim lesson programs are administered to youth participants, and the information/messaging provided within such programming. Potential areas include: (a) supplementation of existing programming, (b) instructor education, and (c) re-formulation of swim lesson materials and content. Continuing to administer the RAA method used in the study should culminate with results that will also serve to inform swim lesson curriculum design by gaining a better understanding of the attitudes, intentions, and beliefs of youth and their perception of current safety messages. Impacting the most popular and widely implemented swim lessons program in the U.S. will create a significant difference for practitioners. Future studies are recommended using a larger and more diverse sample involving a larger variety of geographical areas, as well as continued efforts to examine the nature of the survey tool to measure desired outcomes.

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## **LEISURE PARTICIPATION AND HEALTH OF RETIRED OLDER ADULTS**

Jungsu Ryu, Texas A&M University  
Jinmoo Heo, Texas A&M University  
Sanghee Chun, Brock University  
Byunggook Kim, Daegu University  
Younghill Lee, Calvin College

According to the World Health Organization (2017), active aging involves maintaining physical, social, and mental well-being. Regularly participating in leisure activities among older adults typifies active aging. Literature has demonstrated the benefits of participating in various types of leisure activities. For example, gardening provides an opportunity to expand one's social network and enjoy an active lifestyle, which contributes to overall well-being (Tse, 2010). Visiting friends, informal social activities with friends, as well as participating in hobbies and crafts are related to mental health outcomes such as psychological well-being and depression (Lampinen et al., 2006). In the literature, arguments have been made that certain types of leisure activities are conducive to the well-being of older adults. While there exists a wide array of previous studies suggesting such relationships, little research has investigated the experience of retired older adults. This study builds upon previous works by exploring whether different profiles based on leisure participation could be identified in retired older adults. The main goal of this study is to analyze the differences in retired older adults' health according to their leisure participation. Taking into consideration that participation in leisure activities has an impact on the well-being of retired older adults (Dupuis, 2008), we expect that retired older adults classified in terms of leisure participation would present differences in health. We examined how leisure participation-based profiles differ from each other in physical and mental health. Body Mass Index (BMI) was used as an indicator of physical health in this study, and indicators of mental health were depressive symptoms, perceived mental health, and happiness.

### **Method**

This study was conducted using the secondary data from the Alameda County Study which is a population based study derived from noninstitutionalized adults residing in Alameda County, CA. Our analytic sample included only retirees by the time data were collected ( $n = 1134$ ). The respondents' ages ranged from 60 to 99 years (mean age = 73.24 years,  $SD = 7.64$  years), and the sample was comprised of 47.4% males and 52.6 % females.

Depression was assessed using the 12 items adapted from the Primary Care Evaluation of Mental Disorders (PRIME-MD) mood disorders section. Items assessed experience of depressive symptoms (e.g., loss of interest or pleasure in most things, loss of appetite), and respondents were asked to report the extent to which they had such problems or feelings during the past two weeks. BMI was calculated to determine respondents' weight status by dividing body mass by height squared. Because BMI value has been widely used as a population assessment of overweight and obesity, BMI value was used as an indicator of physical health. Perceived mental health was assessed via the item: 'All in all, would you say that your emotional or mental health is generally...' This item was measured on a 4-point Likert scale ranging from poor to excellent. For happiness, respondents were asked to rate the statement: 'All in all, how happy are you these days?' on a scale with three response options, from not too happy (1) to very happy (3). To measure leisure participation, respondents were asked to rate the frequency of their participation in the following categories: (a) work in the garden, (b) go out to plays, movies, or other entertainment, (c) go to sports events, (d) visit family or friends, (e) doing physical exercise, and (f) go out for volunteer activities. These items were rated on a 3-point Likert type scale ranging from "never" to "often."

To identify profiles based on leisure participation, two-stage cluster analyses were conducted following the methodology suggested by Hair et al. (2010). In the first stage, Ward's

hierarchical clustering was employed to identify the appropriate number of clusters. In the second stage, a K-means clustering method was used. A hierarchical cluster analysis identified three clusters of leisure participation. The first cluster amounted to 41.45% ( $n = 470$ ). The second cluster represented 26.1% ( $n = 296$ ), and the third cluster was comprised of 32.5% ( $n = 368$ ). These three clusters were named: (a) “ardent achievers,” (b) “active gardeners,” and (c) “moderates.” After groups were created using cluster analysis, a multivariate analysis of covariance (MANCOVA) was conducted to assess the difference in physical and mental health. Age and gender were used as covariates in our study.

## **Results**

The ‘ardent achievers’ weighed heavily on all aspects of leisure participation. Individuals in the ‘active gardeners’ group scored slightly lower on every aspects of leisure participation than the ‘ardent achievers’ with the exception of working in the garden. The ‘moderates’ group is distinct from other clusters in that individuals seemed to be relatively moderate on all dimensions of leisure participation (See Table 1). The overall MANCOVA was significant for the outcome variables (Wilks’ $\lambda = .912$ ,  $F = 13.33$ ;  $p < .001$ ). The accompanying follow-up univariate analyses revealed significant differences among clusters for BMI ( $F = 18.33$ ;  $p < .001$ ), depression ( $F = 27.52$ ;  $p < .001$ ), perceived mental health ( $F = 26.68$ ;  $p < .001$ ), and happiness ( $F = 24.00$ ;  $p < .001$ ). Bonferroni tests were conducted to determine if clusters differed from each other on the outcome variables. Pairwise tests demonstrated significant differences among the three clusters ( $p < .01$ ), with the moderates showing the highest BMI, highest scores on depressive symptoms, lowest levels of mental health and happiness. There were not significant differences between ardent achievers and active gardeners.

## **Discussion and Implication for Practice**

The present study provided profiles of retired older adults based on leisure participation, and three distinct groups emerged from cluster analysis. The ardent achievers are best described as individuals who participate in the most leisure activities on regular basis. Their frequent participation in leisure activities was associated with higher levels of physical and mental health. Our results are in line with the theoretical expectations concerning the importance of staying active and maintaining social interactions after the retirement (Toepoel, 2013). According to the Centers for Disease Control and Prevention (2017), a BMI value exceeding 25 is considered overweight, and a normal BMI ranges between 18.50 -24.99. While the BMI of both ardent achievers and active gardeners was above 25, their BMI values were lower than the moderates. Winter et al. (2016) suggested that over two-thirds of adults who are 65 years and older have a BMI of 25 or higher in western countries. Considering the likelihood of having higher BMI among older adults, it should be noted that the BMI values of ardent achievers and active gardeners were significantly closer to the normal range than the moderates. Active gardeners scored relatively high on most leisure activities with the exception of volunteering. This group was highly specialized in gardening. Gardening is known as a moderate to rigorous physical activity that provides opportunities for social interaction, creativity, and improved health and well-being in older adults (Cheng & Pegg, 2016; Robson et al., 2015). Consistent with most of the literature on gardening, it appears that enduring involvement in gardening is associated with higher levels of physical and mental health. Our findings support the extant empirical research, and strengthen the body of literature by relying on a large sample. Our study offers additional insights into the significant role of participating in leisure activities on the well-being of retired older adults.

Jungsu Ryu, Recreation, Park and Tourism Sciences, Texas A&M University, (979) 739-6925, jryu@tamu.edu

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## **HEALTHCARE COSTS ASSOCIATED WITH PHYSICAL ACTIVITY: EVIDENCE FROM U.S. COUNTIES**

Mikihiro Sato, James Madison University

Yuhei Inoue, University of Minnesota

James Du, Florida State University

The health benefits of leisure-time physical activity have been supported in the leisure literature (Lee et al., 2015; Weng & Chiang, 2014). Physical activity lowers the risk of cardiovascular disease, type 2 diabetes, hypertension, and breast and colon cancers and improves mental health and life expectancy (Humphreys, McLeod, & Ruseski, 2014). Moreover, in general, 15 minutes per day of moderate-intensity physical activity effectively prevents disease (Wen et al., 2011). Promoting regular physical activity has become a global public health priority; however, over 50% of adults in the US still failed to meet the U.S. Department of Health and Human Services' recommendations for weekly physical activity in 2015 (Ward, Clarke, Nugent, & Schiller, 2016).

In addition to being a significant cause of morbidity and mortality, physical inactivity results in increased healthcare costs. For instance, using secondary data from the US, Carlson, Fulton, Pratt, Yang, and Adams (2015) reported that 11% of aggregate healthcare costs were associated with inadequate physical activity. Although findings from prior studies have demonstrated the costs of physical inactivity, these studies are limited by their individual-level research designs. Given that the effects of physical activity on health can be influenced by environmental factors in communities (e.g., economic, sociocultural factors; Humphreys et al., 2014), it is imperative that any analyses used to examine the relationship between physical activity and healthcare costs consider environmental differences among communities using a multilevel research design.

Moreover, leisure research has documented the importance of parks and recreational facilities as neighborhood environment characteristics that provide physical activity opportunities and lead to various health benefits (O'Dell, 2016). Evidence suggests that, in communities with more parks and recreational facilities, a lower proportion of the population reports insufficient physical activity (Kaczynski, Potwarka, Smale, & Havitz, 2009). Specifically, investment in close-to-home park and recreation services is associated with higher rates of physical activity and associated health benefits (Kaczynski et al., 2009). Overall, the general public supports investment in park and recreational facilities that have the capacity to elicit higher levels of physical activity health benefits (Godbey & Mowen, 2010); however, no study has examined whether such investments can reduce the healthcare costs associated with physical activity at the population level.

To address these gaps in the existing research, this study investigated the extent to which physical activity rate and access to parks and recreational facilities were related to healthcare costs in U.S. counties. In particular, the following two hypotheses were tested: (a) The physical activity rate in a county would significantly reduce healthcare costs in the county while accounting for the effects of the county average of individual-level and environmental factors on this relationship (Hypothesis 1); (b) Access to parks and recreational facilities in a county would significantly reduce healthcare costs through the increased physical activity rate (Hypothesis 2). Counties were the unit of analysis because, in the US, the majority of local health departments that provide or facilitate public health services in communities are county based (National Association of County and City Health Officials, 2017).

We used secondary data to assess the relationship between physical activity rate and healthcare costs in U.S. counties. County-level data were obtained from the County Health Ranking (CHR) database (University of Wisconsin Population Health Institute, 2016). From the CHR database, we

created two datasets for 2012 and 2013. Both datasets included 3,133 usable counties across 50 states, which represented 99.7% of the 3,143 counties in the country. Healthcare costs, our dependent variable, represented the average price-adjusted Medicare reimbursements per enrollee in each county. Given that Medicare is the largest U.S. government-run health insurance program and that trends in per capita spending for Medicare have been comparable with trends in private health insurance over the last three decades (Medicare Payment Advisory Commission, 2016), the healthcare costs per Medicare enrollee constituted a proxy for the counties' average healthcare expenses. The physical activity rate in each county represented the percentage of adults age 20 and over who had participated in leisure-time physical activity or exercise during the 30 days prior to the survey. Access to parks and recreational facilities represented the percentage of the population with adequate access to parks and recreational facilities in each county. We also included 21 county-level individual and environmental factors that might affect healthcare costs as control variables in our analysis.

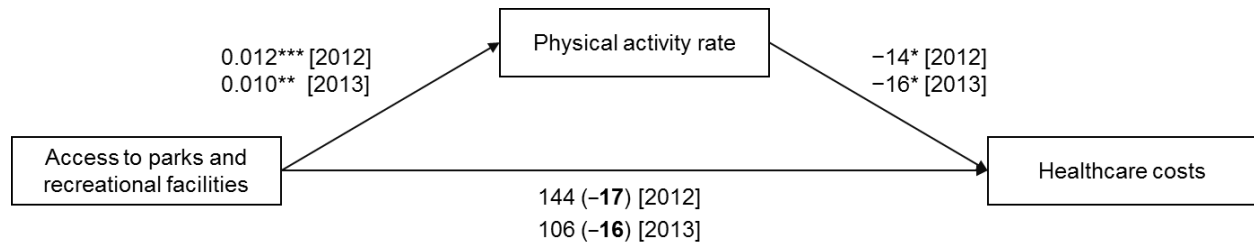
First, we conducted multilevel regression analyses with counties nested within states to assess the relationship between the physical activity rate and healthcare costs. The results suggested that a 1% increase in a county's physical activity rate would have reduced healthcare costs by \$18 in 2012 (95% *CI* = [\$2, \$34],  $p = .03$ ) and by \$20 in 2013 per person (95% *CI* = [\$4, \$35],  $p = .01$ ), supporting Hypothesis 1. Second, we performed mediation analyses at the county level using Hayes's (2013) PROCESS to examine the indirect effects of access to parks and recreational facilities on healthcare costs through the physical activity rate. Consistent with Hypothesis 2, the results suggested that access to parks and recreational facilities would have reduced per-person healthcare costs by \$16 in 2012 (95% *CI* = [\$2, \$38]) and by \$17 in 2013 (95% *CI* = [\$4, \$34]) through promoting the physical activity rate (see Figure 1).

### **Discussion and Implications for Practice**

Despite the government's continued focus on macro-level public health policy targets, extant research has focused on individual-level research designs. Our results present the first evidence of the benefits of physical activity and access to parks and recreational facilities for reducing healthcare costs at the county level. Our findings provide valuable insight into local governments and communities to guide their policy making and funding. The results from the multilevel regression analyses showed that the higher the percentage of people engaging in leisure-time physical activity in a county, the lower people's healthcare costs in that county. If our results are applied to a county of 100,000 people, a 1% increase in the physical activity rate could realize a savings of \$1.8 million (\$18 per person) to \$2 million (\$20 per person) in healthcare costs in that county. The results indicate that local parks and recreation departments can make a case for increased prioritization of and investment in physical-activity intervention programs by highlighting the role of leisure-time physical activity in reducing healthcare costs in the community. The results of our mediation analyses also suggested that access to parks and recreational facilities reduces healthcare costs by increasing residents' physical activity rate. Specifically, in a county of 100,000 people, a 1% increase in access to parks and recreational facilities would reduce healthcare costs by \$1.6 million (\$16 per person) to \$1.7 million (\$17 per person) through increasing the physical activity rate. These findings indicate that increasing residents' access to parks and recreational facilities can promote physical activity and subsequently reduce counties' healthcare costs, thus offering an additional justification for public investment in such facilities.

Mikihiro Sato, Hart School of Hospitality, Sport and Recreation Management, James Madison University, Harrisonburg, VA, (540) 568-7667, [satomx@jmu.edu](mailto:satomx@jmu.edu)

**Figure 1. Results of Regression Analysis with Hayes's (2013) Approach (Hypothesis 2)**



Note: \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Values in parentheses represent the indirect effect of access to parks and recreational facilities on healthcare costs. Boldfaced values in the parentheses highlight significant indirect effects (i.e., those values do not contain zero) as determined by the 95% bias-corrected confidence interval. The control variables are excluded from the figure.

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## **TOWARD ATTACHMENT: MOTIVATION AND RETENTION OF SMALL SPORTING EVENT PARTICIPANTS**

Keri Schwab, California Polytechnic State University

Marni Goldenberg, California Polytechnic State University

Kevin Lin, California Polytechnic State University

Paula Kreider, California Polytechnic State University

**Introduction.** Charity sporting events (CSE's) that seek to raise awareness and funds for a specific cause are a key mechanism by which nonprofits raise funds (Filo, Spence & Sparvero, 2013). CSE's are usually special events that include a physically challenging element, and operate with the goal to raise funds, awareness, and support for a charitable organization (Filo, Spence, & Sparvero; Hendriks & Peelen, 2013). Such events provide participants, the host community, and the charity many benefits. Participants engage in a social and recreational activity while also contributing to a cause (Higgins & Lauzon, 2003). Host communities benefit from increased tourism and community engagement, and the charity gains increased publicity, social awareness, improved sponsor relationships (Ruperto & Kerr, 2009), and participant-driven fundraising. With numerous benefits, it is easy to see why CSEs are popular fundraising options.

Yet, with many charities offering CSEs it is important nonprofits differentiate their CSE from others. The Psychological Continuum Model (PCM) is a framework for understanding sport fans' psychological connection to a team (Funk & James, 2001, 2006), and suggests a psychological continuum where fans move from awareness of a team, to attraction, attachment and allegiance (Funk & James, 2006). Awareness is when one learns an event exists; attraction is a favorite event, attachment occurs when a psychological connection is strengthened as it takes on emotional, symbolic, and functional meaning, and allegiance is when one is loyal and fully committed to the event (Funk & James, 2006). The PCM has been used to study participant attitudes towards CSE's, as knowledge of what moves participants to attachment or allegiance can be used to increase repeat participation.

To understand movement along the PCM, researchers have divided motivations into two categories; recreation or charity. Recreation motives (RM) include intellectual, social, escape, and competency, and charity motives (CM) include reciprocity, self-esteem, need to help others, and desire to improve the charity (Gregg, Pierce, Sweeney, & Lee, 2015). However, much research has looked at large-scale events, and not small events that are more common in mid to small sized cities. Small event organizers can connect directly with their participants and impact attachment or allegiance, thus impacting repeat participation. If CSE organizers know what motivations, they can tailor events to meet needs. Therefore, the purpose of this study was to examine participant motives at a small cycling charity event to determine the impact of CM and RM on participant event attachment (EA) and intent for repeat participation.

**Methods.** The PCM is operationalized with a 36-item scale (Filo, Funk, & O'Brien, 2010; Funk & James, 2006) that consists of 12 items to measure RM, 12 to measure CM, nine to measure EA, and three to assess intent to return. This scale has been found reliable and valid in large samples (Filo, Funk, & O'Brien, 2009). For the current study, the scale was shortened to 14 items that assessed the same constructs, as has been done previously (i.e Filo, 2008). All items were measured on a 7-point Likert scale. The amended scale was piloted and edited for clarity. Subjects were participants in the October 2016 Tour de Pink cycling event, who were asked to complete the survey at a pre-event dinner.

**Results.** Valid responses from 107 participants were obtained, with more females (64.0%) than males, and about 90% of respondents between the ages of 30 and 59. Less than half of the respondents (41.6%) were attending the TdP for the first time, and more than a quarter (28.7%) were breast cancer survivors/fighters. Respondents were satisfied with the event and indicated a

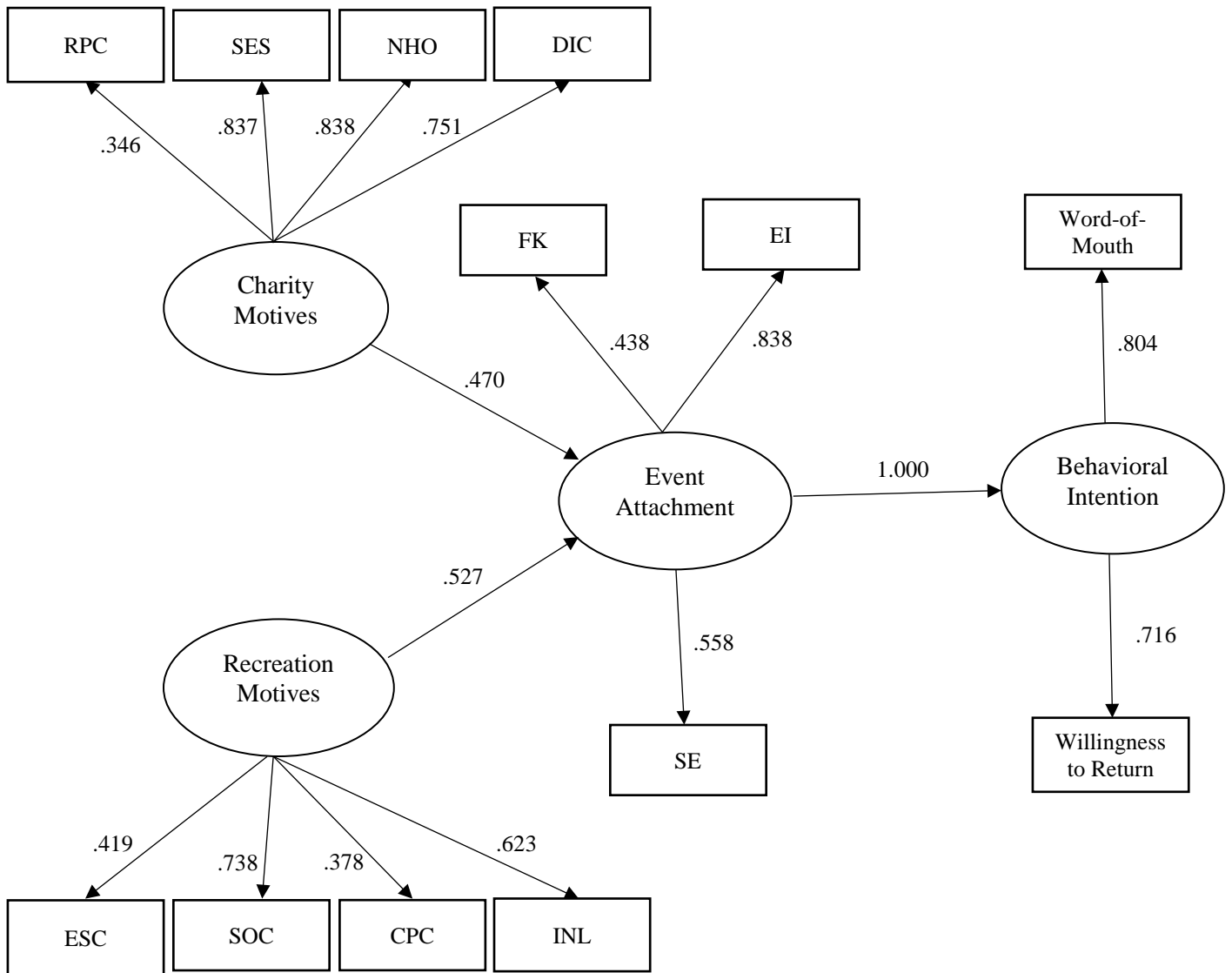


strong intent to return ( $M=6.05$ ,  $SD=1.347$ ) and word-of-mouth effect ( $M=6.48$ ,  $SD=.942$ ). The final model represented the best fit for the data set ( $\chi^2 [60, N = 105] = 106.313$ ,  $p < .001$ ,  $CFI = .917$ ,  $RMSEA = .086$ ). Significant direct effects existed between CM and EA; RM and EA; and EA and Behavioral Intention (BI). In brief, both CM and RM had significant positive impacts on EA, which in turn had a significant positive impact on BI. More specifically, RM had a slightly stronger impact on EA compared to CM. Figure 1 provides the standardized regression weights for each of the model's proposed paths. In particular, recreation and charity motives together explained 82.5% of the variance in the formation of EA.

**Discussion.** Results revealed two main findings. First, CM and RM both have a significant positive impact on EA at a small-scale charity event. Second, EA has a positive impact on intent to participate in the future. RM and CM, and the 8 items within, all contributed to event attachment. Participants placed greater meaning on the event as it provided an opportunity to expand knowledge, socialize with like-minded others, escape daily routine, and challenge themselves physically. Also, the event was an opportunity to give back to the charity, make a positive impact on the lives of others, increase sense of self-worth, and contribute to charity success. Breaking apart RM and CM, RM had a slightly stronger impact on EA than did CM. This confirms previous findings (i.e. Filo, Funk, & O'Brien's 2010). However, this study found that the standardized path coefficients difference between the contribution of RM and CM on EA was much smaller for a small-scale event (i.e., .53 vs. .47) than for a large-scale event (i.e., .55 vs. .21). It can be inferred that CM play a more significant role in affecting participants' experience at smaller charity events. The contribution of EA positively influenced future intent to participate. Attachment can occur when a CSE participant feels involvement in the CSE aligns with personal values, and their needs are met at the event (Funk & James, 2001). This indicates that events that foster attachment by providing participants with an experience that includes functional, symbolic, and emotional meaning allowing them to reach the stage of event attachment makes them more likely to want to return (Funk & James, 2006).

**Implications for Practice.** CSEs are an opportunity to fundraise and build or maintain strong relationships with participants. Retaining participants is important for repeat donations and word of mouth marketing. Based on the findings, CSE planners should respond to participant RMs, so the event will take attendees through a series of engaging experiences, and lead participants to the attachment stage. As this study found both RM and CM play a significant role in EA, both sets of motives should be included in event marketing, planning, and execution. CSE planners should identify specific RM and CM before an event so they can provide customized service to cater to the unique set of objectives attendees bring to an event. RM have a slightly greater influence on EA compared to CM, specifically social interaction, so this could be highlighted in event marketing and management by encouraging participants to create teams, or discounting registration for pairs or small groups. Supporting opportunities for socialization, such as cocktail parties, group meals, or post event celebrations, should foster EA. Small CSE planners should focus more on charity components compared to organizers of large CSEs. Sharing charity beneficiary stories, celebrating all successes, and showing use of funds contribute to CM, which in turn promotes event attendees' behavioral intention for repeat participation.

Keri Schwab, Department of Experience Industry Management, California Polytechnic State University, (805-756-5113), keschwab@calpoly.edu



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## **USE OF MOTION MONITORING DEVICES AND ITS INFLUENCE ON LEVEL AND PERCEPTION OF ACTIVE RECREATION AMONG FAMILIES IN RURAL COMMUNITIES**

Iryna Sharaievska, Appalachian State University

Jennifer Zwetsloot, Appalachian State University

Rebecca A. Battista, Appalachian State University

NRPA is “leading the nation to improved health and wellness through parks and recreation”. This study explored how motion monitoring devices can assist recreation professionals working with families to change their perception and level of physically active recreation. Lack of physical activity continues to be a main health issues in the United States. According to CDC, only 1 in 5 (21%) adults and less than 3 in 10 (30%) high school students meet the 2008 Physical Activity Guidelines (CDC, 2014). Among children aged 9–13 years 77.4% reported participating in free-time physical activity during the previous 7 days (CDC, 2010). Such lack of participation in physical activity among children and adults may be related to various factors, including gender, age, race/ethnicity, SES, family structure, environment, geographical location, and others (CDC, 2009; Mulhall, Reis, & Begum, 2011). Geographical location may play an important role in physical activity in families. For example, Trussell and Shaw (2009) discussed challenges youth in rural communities experience when it comes to participation in organized programs. Inactivity is often reflected as a general decrease in overall health. According to CDC (2009), some areas in Appalachia have the nation’s highest rates of obesity and diabetes, with rates of diagnosed diabetes exceeding 10% and obesity prevalence is more than 30%. Lifestyle and attitude of the parents also affects children’s activity level. Previous research showed that children whose parents are active tend to also be active (Mulhall, Reis, & Begum, 2011) and are more likely to carry on this pattern into adulthood. Thus, increasing physical activity level within a family might be one way to improve health within communities that offer limited opportunities for organized programs. Contemporary technology is often seen as another environmental constraint to participation in physical activity (Louv, 2008). It has been associated with decreased exposure to outdoors, increase in attention deficit disorder among youth, and even technology addiction (Louv, 2008; Watkins, 2009). However, technology can be also channeled to assist recreation professionals and parents in building healthy communities by increasing level of physical activity in families.

Thus, to explore potential of technology in building healthier communities particularly in rural areas, this study focused on influence that motion monitoring devices such as FitBit© has on physically active recreation in families. More specifically, the objectives of this study were: a) to explore how FitBit© use influenced level of physically active recreation in families; b) to explore how FitBit© use influenced perception of physically active recreation in families.

### **Methods**

Eleven semi-structured group interviews were conducted with families in rural Appalachia. This study was a part of the larger project which consisted of two stages. During the first stage (experimental design), the participating families were asked to use FitBit©’s for two weeks. This abstract presents the results of the second stage of the project (qualitative design) which consisted of 11 group interviews with families who volunteered to reflect on their experiences using these devices. The group interviews were conducted with each family in the researcher’s office. Participants consisted of 11 families with one to three children of different ages. All interviews were recorded and transcribed verbatim with the participants’ agreement. Data analysis continued along with data collection, until the point of data saturation was reached (Charmaz, 2010). The

data were analyzed using the open, axial, selective coding technique (Strauss, 1987). To ensure trustworthiness of the study, credibility, originality, resonance, and usefulness were followed (Charmaz, 2010).

## **Results**

Two major themes emerged from the data: a) the influence that use of motion monitoring devices such as FitBit© has on level of physically active recreation in families; b) the influence that use of motion monitoring devices such as FitBit© has on perception of physically active recreation in families.

Results from this study indicated that although some participants reported no *change in physically active recreation* as a result of FitBit© use, the majority of the families had positive feedback. Out of 11 families, only 2 families reported no change in level of participation in or attitude toward physically active recreation. Several family members reported no change due to a rather active lifestyle prior their participation in the study, while other members within those families reported benefiting from FitBit© use. The majority of participants, especially children, claimed slight changes in their level of physically active recreation, as well as more significant changes in their perception of and attitude toward physically active recreation.

Among participants who reported *some changes in activity*, family members claimed to introduce small, naturally occurring changes into everyday life, including walking instead of taking a bus, parking farther away, walking around house, etc. Other families reported increasing the level of participation in the activities they were already doing (e.g., going on a longer hike or walk; practicing dancing or gymnastics).

In addition to slight changes in behavior, more significant *change* was reported *in attitude and perception of physically active recreation* and healthy lifestyle overall. Some participants reported an increased awareness of how active/inactive they were and feeling more accountable as a result of using the FitBit©. Participants described the change in their attitude from seeing active recreation as an inconvenience to seeing it as a benefit (getting something from another room, walking the dog, parking farther away, etc.). Finally, participants recounted having more conversations about active recreation, healthy food, and health in general with their family members.

## **Discussion and Implications for Practice**

The findings of this study can help professionals who work with families in rural communities to increase participation in physically active recreation. While technology is often seen as a constraint to active recreation (Louv, 2008), it may be also used to encourage families to see active recreation as beneficial and enjoyable, rather than tedious and inconvenient. Among some of the recommendations are the use of monitoring devices such as FitBit©, or similar cellphone applications to create a community and competition within and outside of family, to prompt conversations about active recreation, healthy food and health in general, and to generate an increased awareness among families on their activity level. These and potentially other types of technology can be introduced and encouraged through programs focused on youth and families, as well as through recreation settings and parks. While purchasing FitBit©'s or similar technology may be out of reach in poorly-funded recreation programs, contemporary families might have similar applications on their smartphones. Professionals in recreation may provide education on how to use smartphone applications to encourage community and competition among families to ensure both adults and children meet physical activity guidelines.

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# **SUSTAINABLE DEVELOPMENT FOR ROCK-CRAWLING ACTIVITIES ON PUBLIC LAND**

I-Chun (Nicky) Wu, Middle Tennessee State University  
Hung-Ling (Stella) Liu, South Dakota State University  
Fatemeh (Tannaz) Soltani, Oklahoma State University  
Lowell Caneday, Oklahoma State University

## **Introduction/rationale**

Recreational use of off-road vehicles (ORVs) is a mature outdoor activity in the North America. According to the National Survey on Recreation and the Environment, about 44 million people participated in such activities in 2007 and has seen a 19% growth since 2000 (Cordell, Betz, Green, & Stephens, 2008). With visitor safety and enjoyment in mind, public and private land managers strive for providing a range of opportunities such as backcountry roads, trails, and designated ORV areas for these recreation enthusiasts to enjoy out-of-doors. The 800-acre area below the Pensacola Dam in Disney, Oklahoma, managed by the Grand River Dam Authority (GRDA), has gained significant popularity among ORV riders, particularly rock-crawlers. Rock-crawling is one form of ORV activity where drivers use highly modified ORVs to overcome tough terrain and rock obstacles. These specialized vehicles are usually driven in low speed and equipped with large knobby tires, highly flexible suspension system, and a roll cage to aid in maneuvering over various terrain and providing safety. The unique terrain on GRDA property attracts thousands of visitors each year to the rural town of Disney.

The rock-crawling activities occur primarily on the riverbed area on main and emergency spillways below the Pensacola Dam. Rock-crawlers access to the area from adjacent campgrounds, state parks, or roadways without restrictions or paying an entrance fee. As the area becomes increasingly popular, so has the concern for visitor safety. Therefore, GRDA property managers seek long-term direction and guidance for management of the rock-crawling activities, including an extensive understanding of rock-crawlers, controlled access, and fee programs. The theoretical concept of recreation specialization has been proven valuable in studying the within-group social world for many outdoor recreation activities (Manning, 2011; Scott, Ditton, Stoll, & Eubanks, 2005). The predictive utility of recreation specialization has been identified for other attitudinal and behavioral aspects of recreation participation (Bryan, 2000; Thapa, Graefe, & Meyer, 2006). Therefore, recreational specialization is the core theoretical framework used to study the ORV visitors and their perceptions toward planning and management of GRDA property.

## **Methods**

The research team performed several on-site visits and environmental scans, using photography and geographic information mapping techniques to become familiar with the property and rock-crawling activity. A competition analysis was conducted to determine the price necessary to support a self-sustaining program. An on-line survey was developed based on literature reviews and management needs and became available for public input on March 18, 2016, the Big Meat Run weekend, until the end of July. Big Meat Run is the most important rock-crawling event of the year where thousands of rock-crawlers and spectators gathered in Disney. Using a convenient sampling method, posters and cards on-site and recruiting statements on event related social media were utilized to recruit survey respondents. The survey instrument included questions of recreational specialization (Scott, et al., 2005; Sorice, Oh, & Ditton, 2009), motivation (Lepp & Herpy, 2015; Ritchie, et al., 2010), attitude toward managerial actions, demographics, and an open-ended question for additional comments. Descriptive analysis was used to profile research

participants' socio-demographics and level of specialization in rock-crawling. Analysis of variance (ANOVA) was applied to examine if participants' attitudes toward paying fee and management actions varied with their level of specialization in the activity. A total of 532 respondents completed the online survey and provided feedback.

### **Results**

At least 14 access points around the GRDA property and an additional ORV trail network on an adjacent private land south of the property were identified. Other than the Disney area, rock-crawlers visited public and private parks in Oklahoma and the surrounding states, and paid various entrance fee from a \$10 day pass to a \$75 annual fee. An average survey participant is a 37-year-old white male with some college education or higher degree, \$50,000 to \$74,999 household income as a full-time hourly employee or salary professional. The majority (78%) of them are serious and skilled rock crawlers. Rock-crawling is the primary outdoor pursuit. They read rock-crawling articles, purchase equipment to enhance their experience, enjoy being out on the rock frequently, and participate as a member or a driver of a team. They visited GRDA property to escape from daily routines, seek stimulation and excitement, and enjoy being outdoors and with friends. Within the range of \$5 to \$30, visitors to GRDA property valued the experience at \$14.3. The results of ANOVA indicated that the level of recreation specialization did not have a significant influence on their attitude toward paying an entrance fee. Skilled rock-crawlers were more than likely to experience user conflicts and difficulty access to the spillway, while spectators and regular ORV riders focused on supporting amenities and directional maps and signs.

### **Implications for Practice**

For better planning and management of ORV and rock-crawling activities on public land, multiple methods and techniques are recommended to help investigate such complex phenomenon involving leisure behavior, public land use, local economy, and visitor safety. The technological innovations such as Google Earth, GPS cameras, and Geographic Information System (GIS) offered invaluable data and assistance decision-making process for recreational use of public land. A sustainable recreation and tourism development need to involve all stakeholders during the planning and management process. Land managers, ORV riders, local residents and business owners were all invited to attend meetings and focus groups during the investigation to decide the best management practices. As the public land management agency seeks a business model to financially sustain the outdoor recreation program, several marketing strategies should be considered: 1) encourage a cluster of similar or supporting business in the area to support recreational use of ORVs on GRDA property; 2) develop cooperative advertising efforts including local and regional attractions so everyone can benefit from tourism profits; and 3) focus on repeated customers and their satisfaction as the majority of business come from the loyal customers. Lastly, managerial implications and recommendations for GRDA include: 1) conduct a comprehensive survey to define property boundaries for legal and safety reasons; 2) develop area maps and install proper directional and warning signage with geographic information; 3) establish a permit system for regular use and special events, with recommended price of \$10 daily fee and \$25 annual fee; 4) improve supporting amenities (i.e. campsites, restrooms, and parking space); 5) develop a rating system for different levels of rock-crawling difficulty/challenge for nature features within the area and use proper zoning to regulate different ORV activities and reduce user conflicts; and 6) continue research on rock-crawling as the current results may only reflect participants of a single event.



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## ADMINISTRATIVE ROLES IN RECREATION MANAGEMENT

Jo An M. Zimmermann, Texas State University

Robert F. Riordan, Texas State University

Recreation programs, services and facilities play an important role in any community in relation to facilitating healthy lifestyles as well as building social capital. Research into the managers and programmers who create accessible, high quality programs, especially for underserved populations is essential. If we can identify the factors that influence managers and programmers during the decision-making process, it may be easier to identify those individuals that are more likely to be successful in a given community and/or situation. Zimmermann & Payne (2012) proposed a model which offered a possible explanation/framework for how recreation administrators make decisions designed to benefit their constituents. This proposed model was based on Parson's Theory of Action (1953) which looks at "culturally patterned social interaction" (Parsons, 1953, p. 31) and how individuals balance their personal gratification with the needs of society (Parsons, 1951). The theory suggests that people acquire a set of core values which guide their actions in specific domains and therefore influence how a person perceives their role within that domain. "The proposed model of administrative roles in recreation management recognizes the existing literature yet takes a more comprehensive approach to understanding how recreation administrators perceive their role as they make decisions" (Zimmermann & Payne, 2012, p. 173) (see figure 1). Emphasis is placed on the administrator based upon a comment by Hjelte & Shivers (1978) when they stated that within a public park and recreation agency, "the individual administrator's experience, knowledge, and sensitivity to situations and prevailing conditions remain the critical factors from which value judgments and systems are derived and defined" (p.4). According to Veal, Darcy & Lynch (2013) one of the key elements of leisure management is the mixed economy of leisure where services are provided by government, non-profit organizations, commercial groups and the household. There is an assumption that most of recreation management will function in the public sector (Shivers & Halper, 2012) but there is acknowledgement that they need to step beyond the public sector to be "an entrepreneur who operates in a public-sector environment" (Howard & Crompton, 1980, p.1). One of the challenges of delivering leisure services today according to Tower & Zimmermann (2016) "is the juggling of commercial outcomes with community service expectations" (p.4). The purpose of this study was to begin confirming the model of administrative roles in recreation management as proposed by Zimmermann & Payne (2012).

**Methods:** For this study, data were collected from a convenience sample of recreation professionals working in the central region of Texas. Participants were recruited via an email sent to the Director of the agency asking them to share a link to the on-line survey with their staff. The instrument was comprised of modified statements from two existing surveys. The first, the Resource Allocation Preferences Survey (RAPS) (Fisher, 1998) was developed to measure values used by administrators when making decisions relating to resource allocations and it is believed that these relate to the 'underlying assumptions' in the model. The second was a Q-sort developed by Selden, Brewer & Brudney (1999) for use with employees in public agencies regarding administrative roles and is being used to look at 'perception of role' in the model. All questions were on a 5 point Likert scale where 1 = 'this statement expresses my preferences very well' and 5 = 'this statement does not express my preferences at all'. The questions in the RAPS instrument were already designed to measure values at two levels, espoused values (what one would do in a perfect world) and preferred values (what one would do when a hard choice must be made). Items

from the Q-sort were modified to do the same. It is anticipated that the underlying assumptions may have an effect on or relationship to perception of role. In addition, a range of demographic and educational information was collected to see if any of them had any affect or relationship to the underlying assumptions.

**Results:** The RAPS instrument was designed to measure the values of individual need, fairness, utility, ecology and deservingness which was used to measure ‘underlying assumptions’ in the model, while the items from the Q-sort instrument were designed to measure how strongly respondents valued proactiveness, social equity, managerial efficiency, political responsiveness and neutrality which was called ‘perception of role’ in the model. 79 recreation professionals with the following characteristics responded to the on-line survey: 41% were male, 52% female; average age was 41.3 years; A majority of the respondents were white/Caucasian (54.9%) followed by Hispanic/Latinos (30.7%); 90% are working work full-time and in their current position for an average of 4.7 years; 65% had earned at least a bachelor’s degree and the majority considered themselves as working in parks and recreation rather than either parks or recreation. Figure 2 illustrates how well the data fit the model. Analysis shows that underlying assumptions are predictive of perception of role ( $cr = 6.89, p < .01, r = .623$ ). Several demographic traits appear to be significant “predictors” for underlying assumptions: full-time employees had stronger underlying assumptions than part time employees ( $cr = 2.03, p = .042, r = -.217$ ); as level of education increases underlying assumptions increase ( $cr = 2.68, p = .007, r = .285$ ); and those who considered themselves to be working in both parks and recreation had higher underlying assumptions than those identifying as either parks or recreation ( $cr = 2.15, p = .031, r = .230$ ).

**Discussion and Implications for Practice:** While not yet fully tested and validated, the proposed model has the potential to affect the profession in two specific ways. First, in the coming years the profession is going to be losing a large number of administrators to retirement and there is some concern that universities are not producing enough graduates to fill the vacancies. If we can learn more about the multi-faceted and often nuanced roles of administrators for recreation programs and services we can use this information not only in the classroom but in professional development programs. If the participants in this study are an indication of the rest of the field, only 23% had degrees in either recreation or sport management. This means that the majority are coming from different disciplines, thus there will be a need for education as administrators learn to balance the need for an entrepreneurial mindset while not losing sight of community and social equity expectations. Secondly, the proposed model gives recreation program administrators a common framework for discussion about the changing role of management and decision making involved in the delivery of accessible, high quality recreation programs and services. Although no two communities are exactly alike, many face similar challenges. Watching the news, we can see that regardless of location, not only is the physical health of people in decline, in many cases the social structure of communities is failing. People are feeling increasingly isolated and afraid. Recreation can play a powerful role in improving the health of a community. By providing a framework for understanding the roles of administrators this findings of this research will help create professional development workshops as well as offer a common language for administrators to discuss the challenges they are facing. Both of these outcomes will help facilitate necessary changes as they strive to improve their local community.

Jo An Zimmermann, Department of Health & Human Performance, Texas State University,  
[jz15@txstate.edu](mailto:jz15@txstate.edu), 512-245-1973

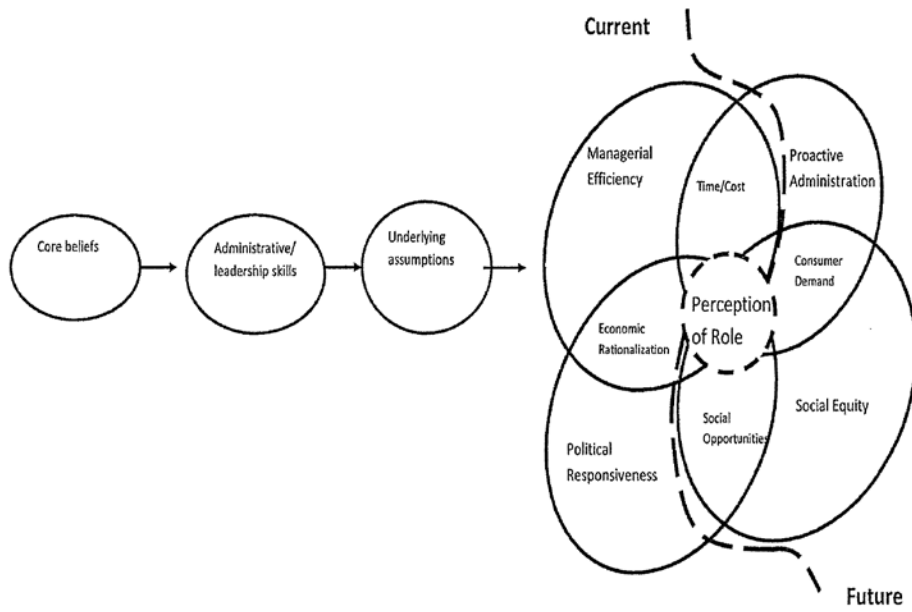


Figure 1. Proposed Model of Administrative Roles in Recreation (Zimmermann & Payne, 2012, p. 173)

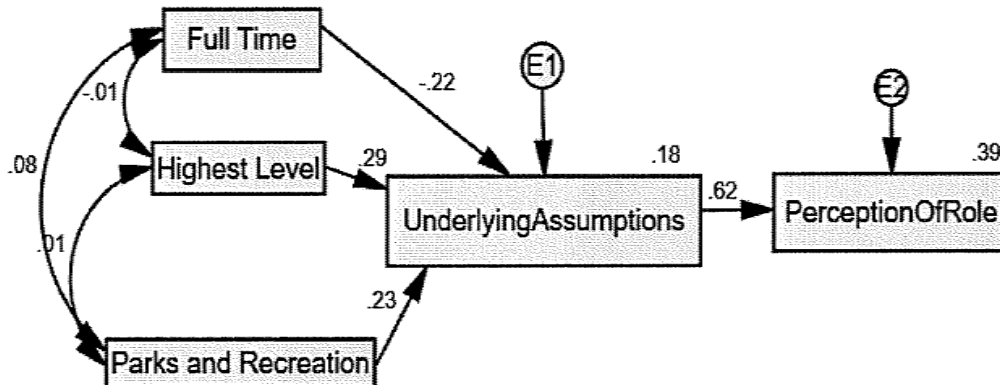


Figure 2. Model with Recreation Professionals

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