

## An Exploratory Study of Serious Leisure and Lifestyle for Amateur Athletes

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### Abstract

The purpose of this exploratory study was to apply the concept of serious leisure to gain an understanding of how amateur athletes in a community setting integrate their free-time interests with lifestyle. A secondary purpose was to investigate which characteristics of serious leisure may identify the participants' levels of dedication to participation in an adult sport program. The study was conducted in the south-central region of the United States in a rural city. A total of 252 pen-and-paper based surveys were collected from softball and volleyball players who enrolled in the community sport program in the fall of 2010. The results indicated that all six serious leisure characteristics (*perseverance, personal effort, career progress, career contingencies, strong identification, and unique ethos*) were able to distinguish the rural amateur athletes' level of sport lifestyle, while *strong identification* and *unique ethos* were the two serious leisure characteristics that generated the greatest differences between the two levels of sport lifestyle of amateur athletes.

**Key words:** Serious leisure, lifestyle, amateur athletes

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## Introduction

Leisure is an important aspect of individuals' daily lives that enhances life satisfaction, enriches mental and physical development, and improves relationships with family, friends, or significant others (Brightbill, 1961). Specifically, in postindustrial society, leisure is regarded as an important factor in enhancing individuals' life satisfaction, and many people have valued their leisure pursuit as a focus of their life interest (Edginton, DeGraaf, Dieser & Edginton, 2005). In addition, Robert Stebbins (1992) created the concept of *serious leisure* to help explain how people dedicate their time and efforts towards their leisure and to explain the characteristics that reflect these participants' seriousness in their leisure pursuits. A wide and diverse range of studies of serious leisure have been conducted over the past three decades with sports being one of the most popular activities in the domain of serious leisure, including mature swimmers (Hastings, Kurth, Schloder, & Cyr, 1995), runners (Goff, Fick, & Oppliger, 1997), golfers (Siegenthaler & O'Dell, 2003), sports tourists (Green & Chalip, 1998; Green & Jones, 2005), and cyclists (O'Connor & Brown, 2010). These studies demonstrated a strong relationship between the characteristics of amateur athletes and their leisure involvement and dedication.

Participating in leisure, recreation, and sports in a local community is an important lifestyle choice for residents (McLean, Hurd, & Rogers, 2008). The social and environmental support in a community plays an essential role for residents participating in sports and recreational activities. Local sports and recreational programs are considered to be platforms for developing a sense of community (Frisby & Millar, 2002) and a link between social environment and developing a personal lifestyle (Anderson, Scrimshaw, Fullilove, & Fielding, 2003). Lifestyle is one of the most significant concepts that is integrated with serious leisure

and it can be used to explain a pattern of behavior which combines values, preferences, and attitudes within a specific population (Stebbins, 2006). In addition, community recreation not only provides residents with a life-long learning opportunities but also it bridges community members' personal interests and serious leisure development, which is followed by individual and social benefits for the community and society (Jones & Symon, 2010).

Stebbins (2001) indicated that "every serious leisure activity offers a major lifestyle and identity for its enthusiasts (p.56)." From this foundation he established a theoretical connection between serious leisure and lifestyle. Of particular interest is relationship between lifestyle and serious leisure in an individual's leisure pursuit, and the importance of leisure involvement in creating individual lifestyles. Although the close relationship between the two concepts has been recognized, few studies have focused on how lifestyle reflects participants' serious leisure characteristics and which serious leisure characteristics are closely associated with their lifestyle.

Therefore, the purpose of this exploratory study was to apply the characteristics of serious leisure to understand how amateur athletes in community-based recreation programs in a small city integrate their free-time interests with their daily life behavior. The study also investigated the extent to which characteristics of serious leisure related to participants' differing levels of dedication in community recreation programs.

## Literature Review

### The Concept of Serious Leisure

The concept of serious leisure is defined as a systematic pursuit of an amateur, hobbyist, or volunteer activity, and individuals who are serious about leisure pursuit usually devote their time and efforts to their chosen activity, consider their leisure progress as career development, and gain special skills, knowledge, and experience through their lei-

sure dedication (Stebbins, 2006). Serious leisure has been viewed as a profound, consistent, invariable engagement based on substantial knowledge and skills, requiring perseverance to overcome challenges and complex tasks. Following are descriptions of the six characteristics or qualities of serious leisure (Stebbins, 1992; Gould, Moore, McGuire & Stebbins, 2008).

*Perseverance* in serious leisure allows leisure participants to overcome psychological and physical difficulties during their experiences. The difficulties that may be overcome include anxiety, embarrassment, and physical dangers. Injury associated with sport and physical activity is inevitable at both at professional and amateur levels, although injuries in amateur sports tend to be less serious than those in professional (Chalmers, 2002). Amateur athletes are likely to recognize physical dangers as part of the experience and may transform the physical and emotional obstacles into the activity (Finley, 2010).

*Career development* in serious leisure is considered to be long-term development with special turning points or stages of involvement and personal commitment (Stebbins, 1992 & 2006). Individuals who are serious with their leisure pursuit may not only have a greater likelihood to develop their career in their leisure but they may also be willing to overcome difficulties along the way. Gould et al. (2008) subdivided the career quality of serious leisure into two dimensions: career progress and career contingencies. *Career progress* focuses on the conscious improvement of leisure participation during the individuals' engagement. *Career contingencies* emphasize the turning points or special events of that leisure involvement.

The systematic pursuit of leisure is a process of having *significant personal efforts*, which is based on specialty skills, knowledge, training, and/or skills, all of which require learning opportunities outside of formal education, or through a self-directed learning process. A study of participation in adaptive sports as a serious

leisure pursuit indicated a positive relationship between participants' self-determination and skill level. Further, sport skill development was related to participants gaining social rewards and physical improvements, as well as enhancing their self-determination to pursue serious leisure (Heo, Lee, Lundberg, McCormick, & Chun, 2008). Another study found that serious sport participants tended to invest personal efforts and perseverance through the training process and dedicated their time to travel for various tournaments outside of their community (Heo & King, 2009).

Participants of serious leisure tend to have *strong identification* with their chosen activity. They are often excited, interested, and enthusiastic to share experiences and knowledge associated with their leisure pursuits. Stebbins (1992) recognized that people who are serious with their leisure pursuit are enthusiastic in talking about their avocation, while non-serious leisure participants do not identify themselves based on their leisure pursuits. Identity was also related to recreational sports participants or amateur athletes, however, it was found to be an evolving process (Kleiber, 1999). That is, individuals overcome challenges and continued to improve their knowledge and skills of the activity in a manner that established, maintained, and reinforced their leisure identity (Dionigi, 2011). This kind of identity assists individuals to distinguish themselves from others and enhances their personal expression through their leisure pursuit (Green & Jones, 2005; Kane & Zink, 2004). Heo and King (2009) found that amateur athletes who are serious about their sport pursuits generate a sense of belonging through other members by identifying themselves with distinct values and beliefs.

Participants acquire *durable benefits* through their systematic leisure pursuit, including self-actualization, self-enrichment, self-expression, recreation or renewal of self, feeling of accomplishment, and enhancement of

self-image, and group outcomes (social interaction and belongingness), and lasting physical products of the activity. The physical benefits from sport participation are often referred to as an essential reward (Heo et al., 2008). Additionally, Dilley and Scraton (2010) argued that serious leisure affords participants the opportunity to belong, to represent their self-expression, and to feel a sense of accomplishment through their leisure pursuit rather than merely as participation in a physical activity.

Finally, participants create their *unique ethos*, defined as special norms, values, beliefs, styles, preference standards, and similar shared representations with other people having the same interests, developing a social world or subculture. For example, Brown's (2007) qualitative study found that members' interpersonal relationships contributed to serious leisure shag dancers' long-term commitment and involvement. Participants who are serious about this type of leisure pursuit develop a sense of belonging through other members or they identify themselves within a particular group having distinct values, beliefs, and sub-culture (Heo & King, 2009).

### **Lifestyle and Community-based Recreation**

The idea of lifestyle is commonly used in social science, including leisure studies (Veal, 1993). Lifestyle is a reflection of an individual's attitude, value, and behavior and creates a symbol of self and personal identification (Stebbins, 2006). One of the most common applications of lifestyle in leisure studies is to treat it as a factor to determine individuals' level of recreation specialization, that is, to measure differences in recreation preferences (Miller & Graefe, 2000). In addition, the role of community has been considered as a significant factor related to residents' lifestyle, and community recreation programs play an important role in enhancing residents' quality of life (McLean et al., 2008). Community recreation programs also provide residents reachable and affordable opportunities for adults to pursue their leisure and enhance

their recreational skills and experiences (Hastings et al., 1995).

In rural areas, community-based adult recreation programs are significant for local residents to have social interaction with other people, develop a sense of belongingness, and to gain a support system to overcome difficulties (Pedersen & Seidman, 2004). For example, many cities in rural areas routinely provide various adult sports programs designed to attract residents and players from nearby towns to participate. The purpose of these adult sport programs is usually to provide residents who are interested in recreation, socialization, and physical fitness and to encourage participants' sportsmanship, skill improvement, and having fun in the sports programs.

Amateur athletes who pursue their leisure seriously are able to identify similar values and preferences among other community members, and lifestyle can be viewed as a behavioral expression of their leisure interests (Stebbins, 2001). Thus, when people commit time and endeavors for their leisure pursuits, they not only build their leisure schedule around their preferred activity, but they consistently develop and polish the necessary skills and techniques related to their chosen activity. All the commitment and involvement of leisure results in creating a special lifestyle revolving around serious leisure activities, which helps individuals to identify themselves as a certain group.

## **Methods**

### **Data Collection and Research Participants**

The study was conducted in a rural city of the south-central region in the United States. The city provided recreational sports programs in softball, volleyball, and basketball on a seasonal basis for members who live locally and in nearby areas. Softball and volleyball are the traditional adult sport programs during the fall season in the community. It was estimated that 720 people were enrolled in the two adult programs, including approximately 600 soft-

ball players and 120 volleyball players in fall 2011.

The on-site surveys were delivered to the city-managed softball fields and volleyball courts from October 5-31, 2011. Research participants were selected by a convenience sample to reach as many on-site respondents as possible. Before games began, the researchers talked to team managers and coaches and asked them to encourage their team members to participate in the study. After the games were over, the researchers verbally invited potential respondents to complete both the survey and a "participant information sheet" which provided the informed consent. The researchers used the existing space, including tables and chairs at the softball fields and volleyball courts for research participants to have a place to complete and return the surveys on-site.

Research participants voluntarily responded to the study and were free to decline or withdraw from participating at anytime. The surveys took approximately 10-15 minutes to complete, and a total of 252 surveys were collected on site. SPSS 19 was used to code the completed surveys, and further analysis was applied to the 226 cases which had no missing data. Respondents included 182 softball players and 44 volleyball players.

### **Research Instrument**

The survey for the study was approved by the Institutional Review Board (IRB) at a south-central region university. The survey included three sections: lifestyle, serious leisure, and demographic information of research participants. The amateurs' lifestyle associated with softball and volleyball activity was measured by the lifestyle dimension of recreation specialization (McFarlane, 1994; Miller & Graefe, 2000; McFarlane, 2004). The Serious Leisure Inventory and Measurement (SLIM) was employed to examine the seriousness of amateur players' involvement in the rural community sport programs. Finally, the amateur athletes

were asked to report their demographic information for understanding the characteristics of research participants.

**Section one:** The lifestyle questionnaire consisted of five statements derived from recreation specialization and modified for softball and volleyball. These questions were used to examine research participants' lifestyle associated with softball or volleyball and their engagement of the sport as the center of their daily life. The statements were: (1) I like to read magazines and books which are associated with \_\_\_\_; (2) I would rather play \_\_\_\_ than do most anything else; (3) I enjoy discussing \_\_\_\_ with my friends; (4) I organize my weekly schedule to "protect" my \_\_\_\_ commitment, (5) I usually watch TV shows and events associated with my sports interest. These statements link the relationship between serious leisure and lifestyle for amateur softball and volleyball players in a rural city.

**Section two:** Serious leisure was used to investigate the amateur athletes' level of systematic leisure pursuit. The Serious Leisure Inventory and Measurement (SLIM) is considered to be a well-developed instrument associated with serious leisure (Heo, et al., 2008), and its dependable reliability also has been examined in several studies for measuring variety of recreation participants' level of leisure pursuit (Barbieri & Sotomayor, 2013; Gould et al., 2008; Lin, 2009). The six factors of SLIM were employed in this study and included: perseverance, significant effort, career progress, career contingencies, strong identity, and unique ethos, all of which measure the "seriousness" of amateur athletes rather than the outcome of their leisure pursuits. Three statements in each factor were computed as an average score for representing specific characteristics of serious leisure, and the internal validities were tested within each factor. In the first two sections, community sports participants were asked to rate their agreement with each statement on a 5-point Likert scale (1 indicating "strongly disagree" to 5

indicating “strongly agree”).

**Section three:** This section focused on demographic information of the amateur athletes including gender, age, highest education achieved, ethnic group, whether the respondent was a city resident, and distance from home to the place of participation.

### **Data Analysis**

The major statistical analysis was Student’s t-test analysis, a commonly used statistic for comparing the means of two samples or to determine if there are any differences between two sample means (Shavelson, 1996). In the study, the mean scores of the lifestyle measurement were used to separate two groups: (1) *sport involved lifestyle*: lifestyle score lower or equal than the mean score; (2) *sport dedicated lifestyle*: lifestyle score higher than the mean score. A paired T-test was performed to investigate whether any significant difference existed between sports involved lifestyle players and sport dedicated lifestyle players’ characteristics of their leisure pursuit. Levene’s test of each variable (the equality of variances) was used to determine the appropriate result of t-test and p-value from SPSS 19 output.

## **Results**

### **Demographic Information**

In this data set, the majority of the amateur athletes in the selected rural community ranged in age from 18 to 34 years old (66%), while 7% (N=17) were 55 years or older. Among the respondents, 63% were male (N=143) and 37% (N=83) were female. Eighty percent of the participants were Caucasian while other ethnic groups were relatively small in the sample. Most amateur athletes in the community-based program had college degrees or higher levels of education (63%) and lived within ten miles of the sport facilities (77%). Table 1 reports the demographic information of the amateur athletes.

### **Descriptive Analysis**

In terms of the descriptive analysis, the result shows that the mean score of lifestyle is

3.11, which is used to separate the respondents into two groups: *sport involved lifestyle group* ( $\leq 3.11$ ) and *sport dedicated lifestyle group* ( $> 3.11$ ). All the useable cases were divided into two groups of 116 and 110. The Cronbach’s  $\alpha$  of lifestyle instrument was 0.72 which indicated the five modified statements showed a dependable internal reliability. In general, the six factors of serious leisure had mean scores ranging from 2.80 to 4.29, and the career progress of serious leisure had mean scores of higher than 4.00. All the Cronbach’s  $\alpha$  of serious leisure factors ranged from 0.80 to 0.93, which was above the general requirement of 0.70 to indicate these factors were reliable (Nunnally, 1967). Table 2 lists the two sport lifestyle groups’ mean scores, standard deviation (SD), and Cronbach’s  $\alpha$  of the two instruments employed in the study.

### **Student’s T-test Analysis**

To assess significant differences between sport involved lifestyle (SIL) and sport dedicated lifestyle (SDL) of rural sport program participants and their level of systemic pursuit in their leisure time, a paired T-test was conducted. The results revealed that all the serious leisure characteristics between two sport lifestyle groups were significantly different. Strong identification ( $t=47.28, p<0.05$ ), unique ethos ( $t=44.11, p<0.05$ ), and career contingencies ( $t=30.94, p<0.05$ ) were the top three serious leisure characteristics reflecting the differences between the two levels of sport lifestyle of community sports program participants in the rural residential area. Table 3 reports the detailed results of T-test analysis. The ‘between variance’ refers to the difference between sport involved lifestyle (SIL) and sport dedicated lifestyle (SDL), and the ‘within variance’ refers to the difference among individual cases within its group. The larger the T-test, the larger the difference between SIL and SDL was.

## **Discussion and Conclusion**

Using lifestyle to investigate how amateur athletes in a rural area embrace their free-time interests into their daily life, the explorato-

ry study found that all the six serious leisure characteristics: perseverance, effort, career progress, career contingencies, strong identification, and unique ethos were able to distinguish the rural sport program participants' level of sport lifestyle. In other words, these amateur athletes in a rural residential area who tended to engage their leisure pursuit in their daily lives

were most likely to have stronger characteristics of serious leisure. As a result, the concept of serious leisure is appropriate for understanding how the rural community program participants' perceive their leisure pursuit.

In addition, community sports program participants' strong identification of serious leisure was the most robust indicator reflecting

Table 1  
Demographic Information of the Study Participants

Demographic Information	Frequency	Percentage
<b>Gender</b>		
Male	143	63%
Female	83	37%
<b>Ethnic Group</b>		
Caucasian	182	80%
Native-American	15	7%
Hispanic	10	5%
Asian	3	1%
African-American	2	1%
Mixed/Other	14	6%
<b>Education</b>		
High school degree or less	83	37%
Bachelor degree or above	143	63%
<b>Resident</b>		
Yes	170	75%
No	56	25%
<b>Distance</b>		
< 3 miles	61	27%
3-10 miles	112	50%
10-20 miles	19	8%
>20 miles	34	15%

Table 2  
Mean Scores, Standard Deviation (SD), and Cronbach's  $\alpha$  of the Instruments

Sport Lifestyle Category	SIL		SDL		Cronbach's $\alpha$
	Mean	SD	Mean	SD	
Lifestyle	2.47	0.48	3.79	0.51	0.72
<b>Serious Leisure</b>					
Perseverance	3.32	0.74	3.63	0.50	0.88
Effort	2.73	0.71	3.21	0.60	0.82
Career Progress	4.09	1.00	4.51	0.70	0.93
Career contingencies	3.29	0.98	3.97	0.85	0.82
Identification	2.48	0.80	3.13	0.61	0.80
Unique ethos	2.80	0.80	3.48	0.63	0.86

Note: SIL= sport involved lifestyle group; SDL= sport dedicated lifestyle group

Table 3  
Student's T-test Analysis between Sport Involved Lifestyle and Sport Dedicated Lifestyle in Serious Leisure Characteristics

Serious Leisure	Variance	Sum of squ.	Mean squ.	T-test	Sig.
Perseverance	Between	5.434	5.434	13.51	0.000*
	Within	90.110	0.402		
	Total	95.544			
Effort	Between	13.126	13.126	29.82	0.000*
	Within	98.602	0.440		
	Total	111.728			
Career Progress	Between	9.817	9.817	13.16	0.000*
	Within	167.131	0.746		
	Total	179.948			
Career contingencies	Between	26.287	26.287	30.94	0.000*
	Within	190.320	0.850		
	Total	216.608			
Identification	Between	24.334	24.334	47.28	0.000*
	Within	115.280	0.515		
	Total	139.616			
Unique ethos	Between	25.729	25.729	44.11	0.000*
	Within	130.671	0.583		
	Total	156.400			

Note: \* means that the effect is significant in  $p < 0.05$ , two-tailed.

the amateur athletes' seriousness of their leisure pursuit. Similarly, Green and Jones (2005) noted that strong identity is the key element for both active and passive sport tourism participants who travel for participating in or watching sport events, and a strong identity and subculture results from seriousness participation. The results also show that the unique ethos of serious leisure is the second influential factor for determining rural amateur athletes' characteristics of serious leisure varied with their sport lifestyle. Comparing to individual sports or personal physical activities, the nature of team oriented sports, such as softball and volleyball, are more likely to provide opportunities for amateur athletes having social interaction with other people, gaining sense of belongingness within their team, and developing unique sub-culture with their team members (Pedersen & Seidman, 2004).

Based on the findings, the implications of this study are that community-based adult

sports programs in rural residential areas are important to local and nearby residents for enhancing their sports skills, interacting with friends and teammates, and developing a leisure-centered lifestyle. These amateur athletes in the rural residential area who participate in the program might have various levels of involvement, but they tend to incorporate their leisure interest into their daily lifestyle. The serious leisure characteristics of the amateur athletes are closely associated with the level of engaging their leisure interest into their lifestyle. It is often suggested that "recreational" sport involvement is a casual experience for the participant. This study suggests that adults who participate in recreational sports exhibit characteristics of "serious leisure" and integrate their recreation into their daily lifestyle. As a result, these findings suggest that the lifestyles of recreational participants are closely associated with leisure pursuits. Such programming through community-based departments is a

critical component of social well-being, social connection, and life satisfaction for the participants.

Several issues need to be considered when interpreting the results of the study. First, the current study focused on adult amateur athletes in a rural area who were involved in community-based recreation programs, and the lifestyle pattern of community-based recreation participants might vary in different residential areas (ex. urban or sub-urban area). Therefore, future study could target community recreation participants in different locations that might further define participants' leisure lifestyle patterns and determine whether serious leisure characteristics are similar or different due to geography. Second, this study was based on a convenience sample and the sample size was relatively small, so the interpretation and generalization of the result should be cautious. Future study may expand on the area of that whether the type of recreation activity impacts participants' attributes to create their perception of leisure and lifestyle by using larger sample size and possibly randomized sampling strategy for enhancing the generalizability of the results. Finally, other influential variables related to participants' characteristics of serious leisure, such as perceived skills or past experience, could be included in future studies for enhancing the understanding of their behavioral pattern. Understanding the relationship between community recreation programming and lifestyle of residents in communities would greatly benefit municipal professionals when such departments are questioned for their value.

### References

- Anderson, L., Scrimshaw, S. C., Fullilove, M. T. & Fielding, J. E. (2003). The community guide's model for linking the social environment to health. *American Journal of Preventive Medicine*, 24 (3), 12-20.
- Barbieri, C. & Sotomayor, S. (2013). Surf travel behavior and destination preferences: An application of the Serious Leisure Inventory and Measurement. *Tourism Management*, 35, 111-121.
- Brightbill, C. K. (1961). *Man and leisure: A philosophy of recreation*. New Jersey: Prentice-Hall.
- Brown, C. A. (2007). The Carolina shaggers: Dance as serious leisure. *Journal of Leisure Research*, 39(4), 623-647.
- Chalmers, D. J. (2002). Injury prevention in sport: not yet part of the game? *Injury Prevention*, 8 (4), 22-25.
- Dilley, R. E. & Scraton, S. J. (2010). Women, climbing, and serious leisure. *Leisure Studies*, 29(2), 125-141.
- Dionigi, R. (2011). Leisure and identity management in later life: understanding competitive sport participation among older adults. *World Leisure Journal*, 44 (3), 4-15.
- Edginton, C., DeGraaf, D., Dieser, R. & Edginton, S. (2005). *Leisure and life satisfaction*. New York, McGraw-Hill Publishing.
- Finley (2010). Skating femininity: Gender maneuvering in women's roller derby. *Journal of Contemporary Ethnography*, 39 (4), 359-387.
- Frisby, W. & Millar, S. (2002). The actualities of doing community development to promote the inclusive of low income populations in local sport and recreation. *European Sport Management Quarterly*, 2 (3), 209-233.
- Goff, S. J., Fick, D. S., & Oppliger, R. A. (1997). The moderating effect of spouse support on the relation between serious leisure and spouses' perceived leisure family conflict. *Journal of Leisure Research*, 29(1), 47-60.
- Gould, J., Moore, D., McGuire, F., & Stebbins, R. (2008). Development of the serious leisure inventory and measure. *Journal of Leisure Research*, 40(1), 47-68.
- Green, B. C., & Chalip, L. (1998). Sport tourism as the celebration of subculture. *Annals of Tourism Research*, 25(2), 275-291.
- Green, B. C., & Jones, I. (2005). Serious leisure, social identity and sport tourism. *Sport in*

- Society: Cultures, Commerce, Media, Politics*, 8(2), 164-181.
- Hastings, D. W., Kurth, S. B., Schloder, M., & Cyr, D. (1995). Reasons for participating in serious leisure: Comparison of Canadian and U.S. masters swimmers. *Sociology of Sport*, 30, 101-119.
- Heo, J., & King, C. (2009). Senior games as serious sport tourism. *Journal of Research*, 4 (2), 6-9.
- Heo, J., Lee, Y., Lundberg, N., McCormick, B., & Chun, S. (2008). Adaptive sports as serious leisure: Do self-determination, skill level, and leisure constraints matter? *Annual in Therapeutic Recreation*, 16, 31-38.
- Jones, I. & Symon, G. (2010). Lifelong learning as serious leisure: Policy, practice and potential. *Leisure Studies*, 20 (4), 269-283.
- Kane, M., & Zink, R. (2004). Package adventure tours: Markers in serious leisure careers. *Leisure Studies*, 23(4), 329-345.
- Kleiber, D. A. (1999). *Leisure experience and human development: A dialectical interpretation*. New York: Basic Books.
- Lin, W. C. (2009). *A study of casual and serious golfers: Testing serious leisure theory*. (Unpublished doctoral dissertation). Oklahoma State University, Stillwater OK.
- McFarlane, B. L. (1994). Specialization and motivations of birdwatchers. *Wildlife Society Bulletin*, 22(3), 361-370.
- McFarlane, B. L. (2004). Recreation specialization and site choice among vehicle-based campers. *Leisure Sciences*, 26, 309-322.
- McLean, D. D., Hurd, A. R., & Rogers, N. B. (2008). *Kraus' recreation and leisure in modern society (8<sup>th</sup> Edition)*. Burlington: Jones and Bartlett Publishers.
- Miller, C. A. & Graefe, A. R. (2000). Degree and range of specialization across related hunting activities. *Leisure Sciences*, 22, 195-204.
- Nunnally, J. C. (1967). *Psychometric theory*. New York: McGraw-Hill Inc.
- O'Connor, J. P., & Brown, T. D. (2010). Riding with the sharks: Serious leisure cyclist's perceptions of sharing the road with motorists. *Journal of Science and Medicine in Sports*, 13, 53-58.
- Pedersen, S., & Seidman, E. (2004). Team sports achievement and self-achievement and self-esteem development amount urban adolescent girls. *Psychology of Women Quarterly*, 28(4), 412-422.
- Shavelson, R. J. (1996). *Statistical Reasoning for the Behavioral Sciences (3<sup>rd</sup> edition)*. Boston: A Person Education Company.
- Siegenthaler, K. L., & O'Dell, I. (2003). Older golfers: Serious leisure and successful aging. *World Leisure Journal*, 1, 41-54.
- Stebbins, R. (1992). *Amateurs, professionals, and serious leisure*. Montreal, Canada: McGill-Queen's University Press.
- Stebbins, R. (2001). Serious Leisure. *Society*, 38, 53-57.
- Stebbins, R. (2006). *Serious leisure: A perspective for our time*. New Brunswick: Transaction Publishers.
- Veal, A. J. (1993). The concept of lifestyle: A review. *Leisure Science*, 12 (4), 233-252.