Understanding the Relationships Among Central Characteristics of Serious Leisure: An Empirical Study of Older Adults in Competitive Sports

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Abstract

This study presents a structural model that explores relationships among six central characteristics of serious leisure. Older adults ($N = 459$) from two Senior Games completed a self-report questionnaire to assess involvement in serious leisure. Structural equation modeling demonstrated that perseverance, effort, career development, unique ethos, and identification positively predicted levels of personal outcomes, as indexed by personal enrichment, self-actualization, enjoyment, and self-fulfillment. The model also showed positive effects of perseverance and career contingencies on unique ethos as well as the influence of significant effort and career contingencies on identification. The findings of this study have extended the existing body of knowledge in leisure studies literature by quantitatively testing the interrelationships among the central characteristics of serious leisure.

KEYWORDS: Serious leisure, older adults, sport, Senior Games

Introduction

Serious leisure is a profound theoretical framework that is frequently used in leisure studies to explain individuals' involvement in and commitment to participation in leisure activities. Since the term *serious leisure* was introduced in the mid-1970s, this perspective has been used widely in leisure studies. Today, The Serious Leisure Perspective website identifies over 150 publications (books, journal articles, chapters, dissertations, and theses) that appeared between 2009 and 2011 on this subject (The Serious Leisure Perspective, 2012). Contemporary investigations utilizing serious leisure have focused on diverse leisure activities such as climbing (Dilley & Scraton, 2010), quilting (Stalp & Conti, 2011), playing chess (Gould et al., 2011), cycling (O'Connor & Brown, 2010), bird watching (Tsaur & Liang, 2008), and coin collecting (Case, 2009). In addition, various groups have been studied in these investigations, including older volunteers (Misener, Doherty, & Hamm-Kerwin, 2010), individuals with disabilities (Patterson & Pegg, 2009), gourmet cooks (Hartel, 2010), belly dancers (Kraus, 2010), wildlife tourists (Curtin, 2010), and student volunteers (Qian & Yarnal, 2010).

The majority of the aforementioned studies were conducted using qualitative methodologies, and many interview studies have significantly contributed to the advancement of this theoretical perspective. For example, Stalp (2006) investigated the lives of female quilters and discovered that they face time and space constraints due to their roles as mothers and/or spouses. In order to continue their serious leisure pursuit without interrupting their family life, they had to resist constraints and develop negotiation strategies. In a study of shag dancers, Brown, McGuire, and Voelkl (2008) suggested that participation in serious leisure is linked to successful aging. Serious leisure played an important role in the lives of these shag dancers because it provided lifelong learning, personal growth, active living, creativity, satisfaction, and happiness.

A handful of researchers have noted positive outcomes of serious leisure participation and the circumstances that individuals should experience in order to reach the point where they obtain such benefits (e.g., Baldwin & Norris, 1999; Bendle & Patterson, 2009; Heuser, 2005; Kane & Zink, 2004; Shipway & Jones, 2007; Shipway & Jones, 2008; Siegenthaler & O'Dell, 2003). In other words, while serious leisure may offer a range of positive outcomes, such as self-confidence, self-worth, and a positive role identity (Patterson & Pegg, 2009), it also demands substantial effort and perseverance. What is common among numerous studies on serious leisure is that most individuals often persevere through challenges, invest personal effort, and develop leisure careers due to their substantial commitment. Consequently, they develop identities associated with leisure subcultures. As a result of these experiences, individuals may gain benefits, such as personal enrichment, self-actualization, enjoyment, and self-fulfillment.

Quantitative investigations of serious leisure have also been reported since the mid-1990s, and attention has been given to testing the theory, examining the relationship between serious leisure and other constructs, and exploring the association between serious leisure qualities (e.g., Derom & Taks, 2011; Goff, Fick, & Oppliger, 1997; Hastings, Kurth, Schloder, & Cyr, 1995; Mannell, 1993; Tsaur &

Liang, 2008). For instance, Goff et al.'s study on spouses of runners emphasized that family conflict is one of the potential costs of serious leisure pursuit. Their study used affective attachment and behavioral consistency in order to assess the commitment of the runners. Mannell used the experience sampling method in order to examine the associations between serious leisure, flow, and the subjective well-being of older adults. His study showed that commitment and high investment activities were related to positive feelings.

More recently, Tsaur and Liang (2008) extended this line of quantitative investigation into serious leisure by testing the cause-and-effect relationship between serious leisure and recreation specialization. They examined Taiwanese birdwatchers and found that significant effort, identification, and career development were notable indicators of serious leisure participation. A positive relationship between the qualities of serious leisure and recreation specialization were also suggested. This study was one of the initial attempts to measure the six qualities of serious leisure. Similar to this approach of measuring serious leisure, Gould, Moore, McGuire, and Stebbins (2008) developed a 54-item Serious Leisure Inventory Measure (SLIM) to be used with a sample of racers, trail runners, and paddlers. Later, Gould et al. (2011) tested the SLIM using a sample of chess players and suggested reducing the number of items to 18. Due to the development of these instruments, it is expected that quantitative investigation into serious leisure will expand further.

While the need to investigate the causal relationships of serious leisure has been expressed (Gould et al., 2008; Shamir, 1992; Yair, 1992), little research in the field of leisure studies has been conducted on these linkage issues. Drawing on a number of previous studies—mostly qualitative inquiries—of serious leisure that conceptualized the relationships among the serious leisure qualities (e.g., Jones, 2000; Stebbins, 1992), we developed an integrative research model that specifies the underlying mechanism of the serious leisure constructs (Figure 1). Therefore, the primary purpose of this research was to identify the influential relationships among the six dimensions of serious leisure. Furthermore, the sequential relationships among the variables were assessed using a structural model approach.

Method

Sample

The data for the present study were obtained from 459 older adults who participated in the Indiana and Colorado Senior Games in 2008. The Senior Games, held annually in various states, are multisport events for individuals aged 50 and older. These events are sanctioned and supported by the National Senior Games Association (NSGA), which is a member of the United States Olympic Committee. The NSGA governs the biennial summer National Senior Games and is the largest multisport event in the world for older adults. Every state in the United States runs an annual competition, and those who qualify at the state level are eligible to compete in the national games. The organizers of the Indiana and Colorado Senior Games agreed to support the administration of our surveys prior to, during, and after the events.
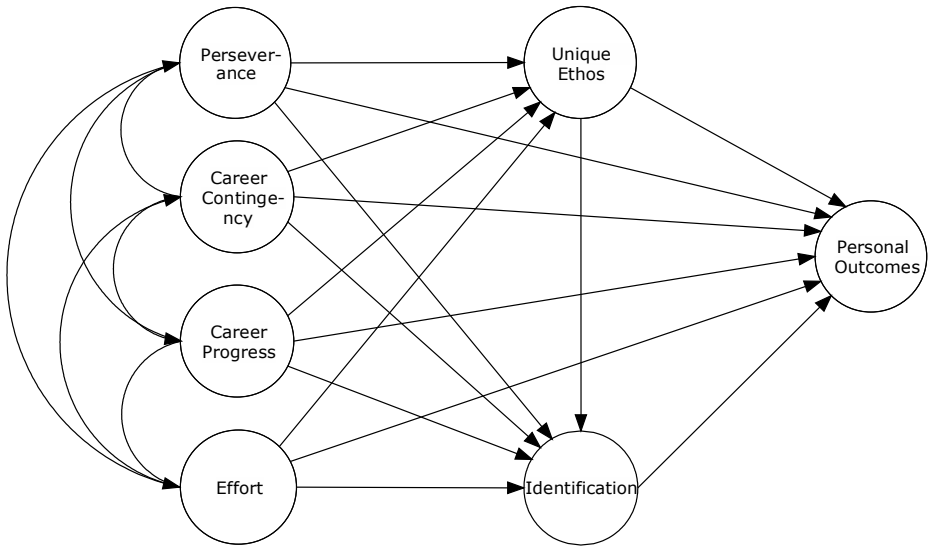
Figure 1. Theoretical Model of Serious Leisure

In 2008, a total of 564 older adults participated in the Indiana Senior Games. For the Indiana Senior Games participants, a link to the survey was provided to those who registered online prior to the event. Some of the participants mailed the surveys to the investigators a few weeks before the event took place (n = 125). The investigators also intercepted the participants during the event at the registration area in order to recruit individuals who had not completed the survey (n = 135). Those who completed less than 50% of the survey were excluded (n = 53). The response rate from Indiana Senior Games participants was 46.0%, and the usable sample size was 207.

For the Colorado Senior Games participants, we used a mail survey. Surveys were delivered to 496 participants who competed in the 2008 games. A total of 140 surveys were returned after the initial mailing. A follow-up survey was mailed to those who did not respond, and an additional 137 surveys were returned. This resulted in a response rate of 55.8%. After omitting 25 unusable surveys from Colorado Senior Games participants, the usable sample size from the Colorado Senior Games participants was 252. The final sample size from the two states was 459. The sample was made up of 34.6% women and 65.4% men, with a mean age of 68.16 years (*SD* = 9.58). The vast majority of the respondents were Caucasian (94.1%), followed by African American (2.4%), Asian (1.8%), and Hispanic (0.7%). Fifty percent held bachelor's degrees, while 43.3% had graduate degrees (see Table 1).

Table 1

Frequencies of Participant Characteristics

Characteristics	*n*	*%*
Age		
50–59	90	19.6
60–69	163	35.5
70–79	144	31.4
80–89	56	12.2
90–	6	1.3
Gender		
Male	300	65.4
Female	159	34.6
Race		
Caucasian	430	94.1
African American	11	2.4
Asian	8	1.8
Hispanic	3	.7
Other	7	1.5
Education		
High School	29	6.4
College	226	50.1
Graduate School	195	43.3
Other	9	1.9
Employment		
Employed	153	33.3
Retired	304	66.5
Other	2	.4
Marital Status		
Married/Partnered	357	77.8
Other (single/divorced/widowed)	102	22.2

Instrumentation

We used the Serious Leisure Inventory Measure (SLIM), which assesses the six central qualities of serious leisure (Gould et al., 2008). The SLIM is made up of 54 items for which the respondents would indicate their answers on a 9-point Likert-type scale ranging from *completely disagree* to *completely agree*. Of those 54 items, only 30 items were used in the analysis because some of the subscales from the durable outcomes were excluded. While Gould et al. (2008) identified nine personal benefits and three social benefits under the durable outcomes category, this study only included four personal benefits (personal enrichment, self-actualization, enjoyment, and self-fulfillment) as the literature noted that these benefits were treated as more important outcomes than other outcomes (Stebbins, 2007; Tsaur & Liang, 2008). Cronbach's alphas for the SLIM subscales ranged from .785 to .972. Pearson correlation coefficients are presented in Table 2.

Table 2

Variances and Covariances for Serious Leisure Measures

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
1. Pers1	2.49																													
2. Pers2	1.84	3.20																												
3. Pers3	1.89	2.62	2.95																											
4. Eff1	1.08	1.15	1.21	1.71																										
5. Eff2	0.83	0.96	0.99	1.43	2.06																									
6. Eff3	1.00	0.94	0.96	1.40	1.67	1.99																								
7. CarP1	0.94	1.29	1.17	1.23	1.34	1.32	3.75																							
8. CarP2	1.02	1.33	1.27	1.29	1.39	1.43	3.45	3.82																						
9. CarP3	1.00	1.28	1.18	1.27	1.35	1.41	3.13	3.38	3.49																					
10. CarC1	0.77	1.02	1.01	0.75	0.61	0.70	1.39	1.40	1.39	4.43																				
11. CarC2	0.73	1.25	1.17	0.70	0.57	0.62	1.35	1.34	1.27	2.44	3.98																			
12. CarC3	0.79	1.24	1.07	0.63	0.66	0.70	1.07	1.09	1.06	1.76	2.79	4.31																		
13. Enr1	0.75	0.93	0.90	0.73	0.60	0.64	1.07	1.15	1.12	0.80	1.13	0.77	1.70																	
14. Enr2	0.74	1.03	0.97	0.77	0.69	0.70	1.11	1.17	1.14	0.83	1.20	0.86	1.55	1.85																
15. Enr3	0.75	0.99	0.98	0.81	0.67	0.68	1.13	1.19	1.16	0.75	1.18	0.86	1.54	1.75	1.89															
16. Act1	0.71	0.78	0.78	0.85	0.89	1.04	1.03	1.18	1.18	0.70	0.88	0.59	0.74	0.76	0.84	2.19														
17. Act2	0.88	1.09	1.08	0.97	1.02	1.10	1.45	1.59	1.59	0.88	1.00	0.79	0.91	1.00	1.02	1.80	2.67													
18. Act3	1.02	1.28	1.26	0.98	0.93	1.03	1.60	1.75	1.76	1.15	1.37	1.07	1.19	1.26	1.30	1.55	2.14	2.73												
19. Ful1	0.88	1.08	1.11	0.93	0.86	0.94	1.27	1.33	1.32	0.92	1.18	0.93	1.17	1.31	1.32	0.98	1.29	1.51	2.28											
20. Ful2	0.83	1.14	1.11	0.83	0.77	0.79	1.34	1.36	1.32	0.98	1.21	0.85	1.24	1.35	1.36	0.96	1.23	1.51	1.90	2.27										
21. Ful3	0.97	1.33	1.31	0.88	0.79	0.85	1.45	1.52	1.47	1.19	1.38	0.98	1.28	1.36	1.37	1.06	1.36	1.72	2.10	2.31	2.83									
22. Enj1	0.55	0.58	0.57	0.59	0.54	0.54	0.71	0.74	0.71	0.37	0.47	0.38	0.83	0.79	0.85	0.64	0.65	0.72	0.97	1.09	1.11	1.18								
23. Enj2	0.50	0.58	0.55	0.54	0.50	0.47	0.68	0.73	0.69	0.36	0.44	0.33	0.81	0.78	0.84	0.60	0.63	0.69	0.93	1.01	1.06	1.07	1.10							
24. Enj3	0.48	0.57	0.55	0.51	0.45	0.47	0.65	0.70	0.67	0.35	0.42	0.32	0.80	0.77	0.83	0.60	0.58	0.63	0.84	0.97	0.98	1.02	1.03	1.12						
25. Uniq1	0.63	0.59	0.71	0.42	0.35	0.39	0.63	0.74	0.77	0.55	0.83	0.78	0.79	0.90	0.91	0.66	0.96	1.05	0.97	1.08	1.16	0.60	0.58	0.61	2.98					
26. Uniq2	0.73	0.84	0.91	0.49	0.46	0.57	0.72	0.78	0.75	0.71	0.92	0.76	0.97	1.05	1.06	0.69	0.90	1.05	1.14	1.24	1.37	0.71	0.68	0.71	2.44	3.04				
27. Uniq3	0.79	0.79	0.93	0.50	0.36	0.46	0.55	0.61	0.56	0.69	0.99	0.69	0.89	0.92	0.97	0.72	0.90	1.01	1.04	1.09	1.26	0.61	0.58	0.63	2.35	2.65	3.49			
28. Iden1	0.80	0.99	1.09	0.86	0.71	0.84	1.13	1.22	1.26	0.93	1.44	1.27	1.19	1.34	1.37	0.94	1.11	1.60	1.66	1.57	1.84	0.81	0.74	0.77	2.04	2.15	2.25	4.21		
29. Iden2	0.84	1.06	1.15	0.95	0.85	0.98	1.31	1.40	1.35	0.70	1.45	1.49	1.12	1.29	1.30	1.15	1.35	1.60	1.66	1.66	1.88	0.88	0.80	0.83	1.92	2.05	2.23	3.79	5.01	
30. Iden3	0.90	1.06	1.17	0.85	0.71	0.86	1.14	1.32	1.31	0.75	1.47	1.20	1.21	1.39	1.42	1.17	1.35	1.66	1.73	1.76	1.96	0.94	0.86	0.87	1.95	2.08	2.29	3.65	4.40	4.77

Data Preparation

The assumption of multivariate normality was tested. While the assumption of univariate normality was met (e.g., absolute values of skewness and kurtosis were less than 2 and 7, respectively), result of the Shapiro-Wilk multivariate normality test (Royston, 1982) indicated that multivariate normality assumption was violated ($W = .792$, $p < .001$). In addition, several items had missing values (e.g., missing value rates ranged from 2% to 5%). To accommodate these issues, we decided to use robust maximum likelihood estimation against non-normality and missing values (Satorra & Bentler, 2001).

Data Analysis

Structural equation modeling approach was used to examine the relationships between characteristics of serious leisure. We estimated the model using M*plus* 6.0 with robust maximum likelihood estimation. Using selected fit indices with a priori acceptable criteria for model fit (e.g., χ^2 statistics, standardized root mean square residual [SRMR] ≤ .08, root mean square error of approximation [RMSEA] ≤ .08, comparative fit index [CFI] ≥ .95, and Tucker-Lewis index [TLI] ≥ .90), we assessed whether the model fit to the data well (Hu & Bentler, 1995, 1999). Once the measurement model, which identifies the relationships between observed variables and latent variables, was evaluated, we examined the hypothesized relationships among the constructs.

Results

To test whether our hypothesized model fit the data well, we used a two-step evaluation approach: (1) to evaluate the measurement model and (2) to evaluate the structural model. Selected fit indices for the 10-factor measurement model of serious leisure suggested that overall the model fit the data well: a scaled χ^2 (360, $N = 459$) = 649.271, SRMR = .037, RMSEA = .042 with the 90% confidence interval .037–.047, CFI = .966, and TLI = .959. Because our model has a second-order factor—personal outcomes—that was determined based on personal enrichment, self-actualization, enjoyment, and self-fulfillment, a higher order confirmatory factor model was also tested. The model showed a good fit to the data: a scaled χ^2 (380, $N = 459$) = 724.572, SRMR = .048, RMSEA = .044 with the 90% confidence interval .040–.049, CFI = .960, and TLI = .954. All factor loadings were significantly high, and the estimated factor correlations among serious leisure constructs ranged from .236 to .641, indicating that both convergent and discriminant validities seem tenable (see Table 3).

Given the acceptable measurement models, the fit of our hypothesized structural model of serious leisure to the data was tested further. The overall fit indices strongly suggested that the hypothesized model fit the data well: a scaled χ^2 (380, $N = 459$) = 724.572, SRMR = .048, RMSEA = .044 with the 90% confidence interval .040–.049, CFI = .960, and TLI = .954. The estimates of the direct effects of the four exogenous and two endogenous factors on the personal outcomes construct were statistically significant. However, the estimates of the direct effects of both career progress and effort on unique ethos were not statistically significant. It was also found that the estimates of the direct effects of both perseverance and career

progress on identification were not statistically significant. To find a parsimonious structural model, a chi-square difference test of the structural models with and without the nonsignificant paths was conducted. The result showed that the two models were not statistically different: $\Delta\chi^2$ (4) = 4.707 p = .319, indicating that the re-specified structural model presented was reasonable and the fit of the model to the data was good.

Table 3

*Estimated Factor Correlation Coefficients among Serious Leisure Measures*

	1	2	3	4	5	6	7
Perseverance	1.00						
Effort	.52	1.00					
Career Progress	.42	.58	1.00				
Career Contingency	.40	.28	.38	1.00			
Unique Ethos	.32	.23	.24	.30	1.00		
Identification	.33	.33	.34	.37	.64	1.00	
Personal Outcome	.57	.56	.60	.51	.57	.63	1.00

Note. All correlation values are significant ($p < .001$)

In the re-specified structural model, all of the parameter estimates were statistically different from 0 at .05 levels (see Figure 2). As expected, higher levels of perseverance (.169), career contingency (.151), career progress (.250), and effort (.161) were associated with higher levels of personal outcomes. Individuals with higher levels of unique ethos (.224) and identity (.243) had higher levels of personal outcomes. Higher unique ethos (.553), career contingency (.166), and effort (.168) were associated with higher levels of identification, while higher perseverance (.248) and career contingency (.209) were associated with higher unique ethos. Three endogenous constructs—unique ethos, identification, and personal outcomes—were significantly predicted, R^2 values at .147, .479, and .688, respectively, while four exogenous factors were significantly correlated with one another.

Discussion

The purpose of our study was to test the relationships among the central characteristics of serious leisure. This study was the first in which researchers explored the causal relationships among these variables and demonstrated the contributions of each quality on personal outcomes. The structural equation model showed that perseverance, career development, personal effort, unique ethos, and identification explained 68.8% of the variance in the personal outcomes of serious leisure. We also confirmed the direct significant effect of all of the serious leisure qualities on the outcomes with this sample.

N = 459
Chi-square = 729.486(df = 384)
CFI = .960
TLI = .955
RMSEA = .044 (90% C.I., 039–.049)
SRMR = .051
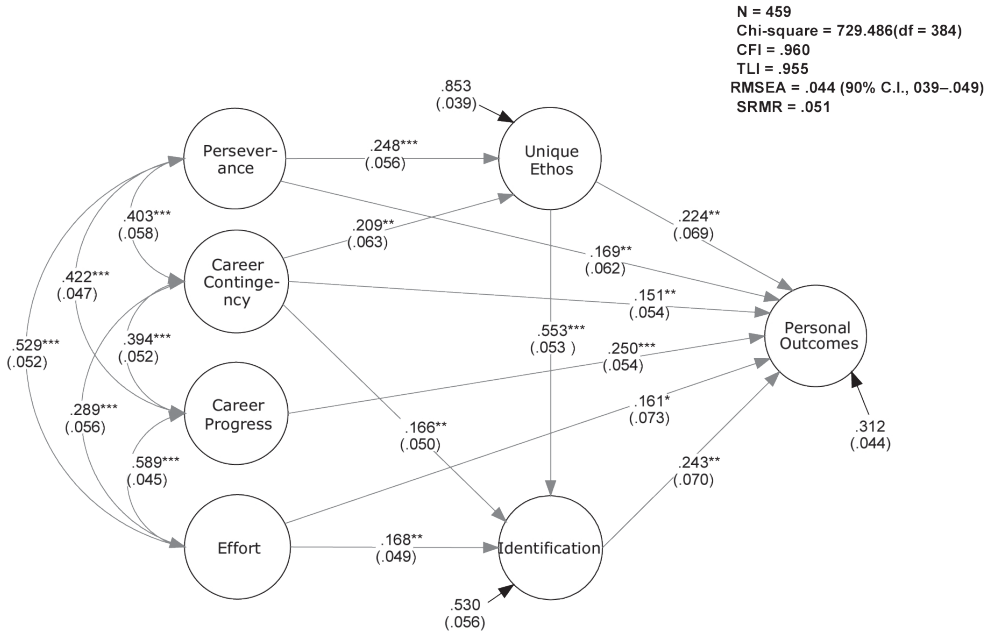
*p < .05, **p < .01, ***p < .001.

Figure 2. Structural Model of Serious Leisure

Overall, our results supported the findings and assertions of many serious leisure researchers. For instance, unique ethos and identity had direct effects on personal outcomes, which support Heuser's (2005) remarks that serious leisure participants received durable benefits from their participation in the subculture and their strong identification. In our model, the path from unique ethos to identification was significant with a large magnitude, which implies that the relationship between these two characteristics may be stronger than that of any of the other characteristics (Green & Jones, 2005).

The effect of perseverance and career contingencies on unique ethos as well as the influence of significant effort and career contingencies on identity warrant further discussion. A need to overcome challenges, difficulties, and barriers in serious leisure will always exist. For our participants, experiencing an injury might be one of the prevailing factors through which they have to persevere. Some senior athletes who had to travel long distances to compete in the event said they also had to persevere with finding money to fund the trip. When this need becomes extreme, family or work priorities could be less important and the social world within the activity may take precedence over other obligations (Shipway & Jones, 2007). As people outside the serious leisure realm may not fully understand the costs and challenges of involvement, serious leisure participants might develop cohesiveness and in-group favoritism with other enthusiasts in their social world.

Serious leisure participants often discover leisure careers that reflect stages of experience, such as "occasional dancers," "wannabes," and "hard-core dancers" (Brown, 2007) or "therapeutic players," "social golfers," "moderate devotees" and "core devotees" (Siegenthaler & O'Dell, 2003). Therefore, it is not likely that a novice would immediately become a core participant when pursuing a leisure activity. Development of a career is necessary, and involvement in serious leisure is often influenced by events and contingencies, such as retirement, disability, availability of time and programs, family obligations, and occupation demands (Hastings et al., 1995). When a person uses these contingencies to shape his/her involvement in serious leisure, he/she advances his/her leisure career and finds that his/her behaviors and ways of thinking are different from those of casual leisure participants or the public (Kane & Zink, 2004). Once the career markers are structured, individuals are likely to enter the social world and begin to develop a serious leisure identity.

In a study of distance runners, Shipway and Jones (2007) stated that personal effort and serious leisure identity may be reciprocally related. In other words, investing substantial effort in an activity provides a valued identity. Once the identity is formed, an individual will make an additional effort to retain that identity. While the paths in our model did not show the influence of identification on effort, it did confirm the importance of personal effort on identification, which supports the premise that significant efforts, such as committing extra hours or developing skills for the activity, would strengthen a person's serious leisure identity.

Our findings should be considered in light of several limitations. The data were collected from two Senior Games. Although it was assumed that the older adults participating in the Senior Games may possess somewhat homogeneous demographic characteristics, limitations still exist in regard to generalizing our results to other senior athletes. The sample is characterized by a high percentage of Caucasians and a high education level. Thus, it has unintentionally excluded individuals of lower income and less educated older adults, who often receive little attention in leisure research. It should also be noted that some personal and social outcomes were excluded from our model, which may have impacted our results.

Despite some limitations, our study has set the groundwork for future exploration and theory progression in regard to understanding the causal relationship of the central characteristics of serious leisure. A direction for future study might be to test the relationships among serious leisure qualities using different populations and diverse activities. It is also possible to test the theory in different cultural settings, and future work in other cultural contexts may help verify the generalization of the findings from the current study. A number of ways exist by which future research could seek to develop a better understanding of the serious leisure model, such as including other personal and social outcomes in the analysis. Although the structural model in the present study is constructed using cross-sectional data, it could be suggested that the model provides only a snapshot of the dynamics of the qualities of serious leisure.

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