

The Effect of Exercise Commitment on the Quality of Life According to Motivation for Participation in Leisure Sports

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Abstract

The purpose of this study is to investigate the effect of the elderly's motivation to participate in ball games. In order to clarify the purpose of this study, leisure sports participants over the age of 20 residing in the Jeonnam region in 2020 were selected as the population. In addition, 150 males, 150 females, and 300 total subjects were selected using the convenient sampling method. In addition, as a survey tool, a questionnaire was used centering on the motivation for participation in leisure sports, exercise commitment, and quality of life, and the data collected using this was processed statistically according to the purpose of analysis using SPSS 20.0 version. The results obtained through this research process are as follows. First, it was found that the motivation to participate in leisure sports has a partial effect on exercise commitment. Second, it was found that the motivation to participate in leisure sports partially affects the quality of life. Third, it was found that the commitment to exercise in leisure sports has a partial effect on the quality of life.

Keywords: *Leisure Sports, Motivation for Participation, Immersion in Leisure Sports, Quality of Life*

1. Introduction

What is considered the greatest issue and importance in all fields of modern society is the “quality of life” in human life. In the past, these measures of quality of life have been evaluated considering only the economic or material aspects. However, in modern society, it presupposes that the main demands and material satisfaction of life such as personal development, self-realization, and a balanced ecological system are included, and the definition of quality of life is not grasped in the quantitative growth of human life. It is evaluated by emphasizing the psychological and inner aspects [1], [2], [3]. So what is the best quality of life? In modern people, various subjective needs are emphasized, so it is impossible to conclude anything, but it can be said that it is a healthy and happy life free from stress. This can be found in leisure sports activities. Accordingly, leisure sports activities enhance the quality of life by fulfilling human physiological, psychological and social needs and values, and by playing a role in providing opportunities for enjoyment and happy life in daily life. In general, when asked why they do leisure sports, most of them say it is because of their health, but those who have participated in leisure sports for a long time say that the answer is because of the fun and joy [4], [5].

This is because, through participation in leisure sports, it is possible to have vitality in life while giving the

meaning and reward of life in the dry daily life while experiencing emotion, joy, happiness, and fun in addition to health [6], [7]. In the end, participation in leisure sports has a profound relationship with the quality of life that humans pursue, and this relationship will be able to revitalize the expectation of satisfying needs by re-examining the relationship with various variables. Therefore, the purpose of this study is to investigate the effect of the motivation for participation in leisure sports on commitment and quality of life

2. Analysis method and survey tool

2.1 Study Subjects

The subjects of this study were selected as the population of leisure sports participants over the age of 20 residing in Jeonnam in 2020. In addition, 150 males, 150 females, and 300 total subjects were selected using the convenient sampling method. Specific demographic characteristics are shown in Table 1.

Table 1. study subjects

Variable		Number of cases	percentage(%)
Gender	female	150	50
	male	150	50
Age	20-30	120	40
	30-40	100	33.3
	40-50	80	26.7
Income level	200 or less	100	33.3
	More than 200-less than 300	120	40
	More than 300	80	26.7

2.2 Survey Tools

In order to measure the motivation for participation in leisure sports, J.M. Lim and S.W. The scale reconstructed by Lim [8] was modified and used. The motivation for participation in leisure sports was composed of two sub-factors: internal motivation and external motivation. In addition, to measure the commitment to leisure sports, B.H. The scale reconstructed by Lee [9] was modified and used. Leisure sports commitment consisted of two factors: cognitive commitment and action commitment. Finally, to measure the quality of life, Y.S. The scale reconstructed by Jang [10] was corrected and supplemented accordingly in this study, and was composed of three factors: psychological domain, living environment, and self-satisfaction. All questionnaires were organized on a 5-point scale. The composition indicators of the questionnaire are shown in Table 2.

Table 2. Questionnaire composition indicator

Constituent indicators	Sub-factor	Number of questions
Demographic characteristics	Gender	1
	Age	1
	Income level	1
Leisure Sports Participation Motivation	Inner motive	7
	External motive	6

Exercise immersion	Cognitive immersion	7
	Action immersion	5
Quality of life	Psychological area	8
	Living area	5
	Self-satisfaction	5

3. Validity and reliability of this study

3.1 Exploratory factor analysis

Table 3 shows the results of exploratory factor analysis on the motivation for participation in leisure sports.

Table 3. Leisure Sports Participation Motivation Exploratory Factor Analysis

Variable	Factor 1	Factor 2
Inner motive	Q02	0.848
	Q04	0.811
	Q03	0.762
	Q01	0.749
	Q05	0.731
	Q07	0.722
	Q06	0.670
External motive	Q12	0.125
	Q10	0.101
	Q09	0.123
	Q08	0.085
	Q11	0.123
	Q13	0.146
Eigen Value	5.205	3.638
Variance (%)	35.919	25.209
Cumulative(%)	35.919	60.128

According to Table 3, the items showing high factor load (0.670 or more) in factor 1 are 7 items of items 2, 4, 3, 1, 5, 7, 6, which are related to the inner motive. The items showing high factor load (0.604 or higher) in factor 2 are 6 items of items 12, 10, 9, 8, 11, and 13, which are related to external motives. And the cumulative ratio explaining the two factors of the motivation for participation in leisure sports was 60.128%, the inner motive and the external motive. The results of this analysis show that the motivation for participation in leisure sports was measured relatively appropriately.

The results of the exploratory factor analysis on exercise immersion are shown in Table 4.

Table 4. Exercise immersion exploratory factor analysis

Variable		Factor 1	Factor 2
Cognitive immersion	Q02	0.799	0.184
	Q06	0.755	0.123
	Q04	0.742	0.111
	Q05	0.741	0.163
	Q07	0.671	0.219
	Q01	0.667	0.190
	Q03	0.628	0.352
Action immersion	Q08	0.112	0.789
	Q10	0.117	0.781
	Q09	0.210	0.771
	Q11	0.178	0.767
	Q12	0.163	0.611
Eigen Value	3.724	2.586	
Variance (%)	33.854	26.506	
Cumulative(%)	33.854	60.360	

According to Table 3, the items showing high factor load (0.628 or higher) in factor 1 are 7 items of items 2, 6, 4, 5, 7, 1, and 3, which are related to cognitive immersion. The items showing high factor load (0.611 or more) in factor 2 are 5 items, items 8, 10, 9, 11, and 12, which are related to action immersion. In addition, the cumulative ratio that explains the two factors of cognitive immersion and action immersion of exercise immersion was found to be around 60.360%. The results of this analysis show that exercise immersion was measured relatively well.

The results of the exploratory factor analysis on the quality of life are shown in Table 5.

Table 5. Quality of life exploratory factor analysis

Variable		Factor 1	Factor 2	Factor 3
Psychological area	Q05	0.884	0.128	0.088
	Q04	0.841	0.111	0.110
	Q03	0.789	0.211	0.011
	Q01	0.777	0.142	0.073
	Q06	0.724	0.111	0.231
	Q02	0.722	0.104	0.222
	Q07	0.694	0.200	0.025
	Q08	0.689	0.105	0.121
Living area	Q15	0.218	0.865	0.128
	Q14	0.129	0.764	0.124
	Q16	0.122	0.669	0.230
	Q17	0.083	0.677	0.116
	Q18	0.106	0.641	0.150

	Q09	0.101	0.101	0.842
Self-satisfaction	Q13	0.130	0.113	0.797
	Q12	0.118	0.110	0.734
	Q11	0.140	0.112	0.680
	Q10	0.200	0.103	0.579
Eigen Value	4.880	3.441	3.221	
Variance (%)	27.111	19.118	17.897	
Cumulative(%)	27.111	46.229	64.126	

According to Table 5, the items showing a high factor load (0.670 or more) in factor 1 are items related to the psychological area as 8 items of items 5, 4, 3, 1, 6, 2, 7, 8. The items showing high factor load (0.641 or higher) in factor 2 are 5 items of items 15, 14, 16, 17, and 18, which are related to living area. The items showing a high factor load (0.579 or more) in factor 3 are 5 items of items 9, 13, 12, 11, and 10, which are related to self-satisfaction. And the cumulative rate that explains the three factors of quality of life, Psychological area, Living-area, and Self-satisfaction, was found to be 64.126%. The results of this analysis show that the quality of life was measured relatively reasonably.

3.2 Reliability analysis

The results of the reliability analysis of this research questionnaire are shown in Table 6.

Table 5. Reliability analysis

Factor	Sub-factor	Cronbach's α
Motivation for participation in leisure sports	Inner motive	0.89
	External motive	0.84
Exercise immersion	Cognitive immersion	0.85
	Action immersion	0.85
Quality of life	Psychological area	0.91
	Living area	0.87
	Self-satisfaction	0.84

Exercise immersion Cronbach's α value was found to be .85. In addition, Cronbach's α value of Quality of Life was found to be .84-.91. In this study, Cronbach's α , which is the reliability coefficient for all factors, was found to be a high level, making it a reliable question.

4. Investigation procedure and data processing

The research procedure of this study was collected by distributing and collecting questionnaires after the researcher and assistant personally visited the sampling target.

First, explain the tips and precautions for the questionnaire, and then ask them to respond with the self-administration method, and then collect the questionnaire. For data processing, after collecting the completed data to the questionnaire, double-written and non-inclusive data were excluded from the analysis, and only valid samples were coded according to the coding guidelines. After individually entering coded data into the computer, the statistical program (SPSS Windows.20.0 Version) was used. For specific statistical analysis, frequency analysis, exploratory factor analysis, reliability analysis and multiple regression analysis were

performed.

5. Results

5.1 The effect of leisure sports participation motivation on exercise commitment

Looking at Table 7, it was found that the motivation for participation in leisure sports in the final regression equation had a statistically influence on the cognitive immersion and action immersion of exercise immersion at a level of 0.1%.

Table 7. Multiple regression analysis on the effect of leisure sports participation motivation on exercise commitment

Variable	Cognitive immersion		Action immersion	
	β	t	β	t
Constant		25.032		19.519
Inner motive	0.230	3.753***	0.117	1.947
External motive	0.409	6.278***	0.328	5.113***
R ²	0.275		0.289	
F	36.376***		39.156***	

***p<.001

Looking at this in detail, first, it was found that the inner motive and external motive of the leisure sports participation motivation had an effect at the level of 0.1% statistically on cognitive immersion. Leisure sports participation motivation was found to have an effect in the order of external motive (0.409) and inner motive (0.230) when looking at the beta (β) value representing the relative contribution to cognitive immersion. This shows 27.5% explanatory power for the total variance.

On the other hand, it was found that action immersion had an effect on the external motive of participation motivation for leisure sports at a level of 0.1% statistically. Leisure sports participation motivation was found to have an effect in the order of Inner motive (0.328) and External motive (0.117) when looking at the beta (β) value representing the relative contribution to action immersion. This shows 28.9% explanatory power for the total variance.

5.2 The effect of leisure sports participation motivation on quality of life

Looking at Table 8, it was found that the motivation for participation in leisure sports in the final regression equation had a statistical effect on the psychological area, living area, and self-satisfaction of quality of life at 0.1% level.

Table 8. Multiple regression analysis on the effect of leisure sports participation motivation on quality of life

Variable	Psychological area		Living area		Self-satisfaction	
	β	t	β	t	β	t
Constant		0.294		3.913		2.925
Inner motive	0.124	3.189**	0.163	3.280***	0.240	5.622***
External motive	0.387	8.592***	0.236	4.118***	0.307	6.228***
R ²	0.606		0.330		0.541	
F	24.450***		25.272***		83.779***	

***p<0.001

Specifically, it was found that the inner motive of participation motivation for leisure sports in the psychological area was statistically affected at the level of 1% and the external motive at the level of 0.1%. Leisure sports participation motivation was found to have an effect in the order of external motive (0.387) and inner motive (0.124) when looking at the beta (β) value representing the relative contribution to the psychological area. This shows 60.6% explanatory power for the total variance.

On the other hand, it was found that the inner motive and the external motive of the motivation to participate in leisure sports in the living area had an effect at the 0.1% level. Leisure sports participation motivation was found to have an effect in the order of external motive (0.236) and inner motive (0.163) when looking at the beta (β) value representing the relative contribution to the living area. This shows 33.0% explanatory power for the total variance.

Finally, it was found that the inner motive and the external motive of the motivation for participation in leisure sports in self-satisfaction had an effect at 0.1% level. Leisure sports participation motivation was found to have an effect in the order of external motive (0.307) and inner motive (0.240) when looking at the beta (β) value representing the relative contribution to self-satisfaction. This shows 54.1% explanatory power for the total variance.

5.3 Effects of exercise immersion on quality of life

Looking at Table 9, it was found that in the final regression equation, exercise commitment had an effect on the psychological area, living area, and self-satisfaction of quality of life at a statistically 0.1% level.

Table 9. Multiple regression analysis on the effect of exercise commitment on quality of life

Variable	Psychological area		Living area		Self-satisfaction	
	β	t	β	t	β	t
Constant		2.939		10.304		5.507
Cognitive immersion	0.066	1.205	0.288	6.798***	0.442	8.294***
Action immersion	0.344	5.415***	0.079	1.870	0.038	.697
R ²	0.222		0.103		0.280	
F	44.814***		31.685***		7.811***	

*** $p < 0.001$

Specifically, first, it was found that the action immersion of exercise immersion in the psychological area had an effect at the level of 0.1% statistically. When looking at the beta (β) value representing the relative contribution to the psychological area, exercise immersion was found to have an effect in the order of Action immersion (0.344) and Cognitive immersion (0.066). This shows 22.2% of explanatory power for the total variance.

On the other hand, it was found that the cognitive immersion of exercise immersion in the living area had an effect at the level of 0.1% statistically. When looking at the beta (β) value representing the relative contribution to the living area, exercise immersion was found to have an effect in the order of Cognitive immersion (0.288) and Action immersion (0.079). This shows 10.3% explanatory power for the total variance.

Finally, it was found that the cognitive immersion of exercise immersion in self-satisfaction had an effect at the level of 0.1% statistically. When looking at the beta (β) value representing the relative contribution to self-satisfaction, exercise immersion was found to have an effect in the order of Cognitive immersion (0.442) and Action immersion (0.048). This shows 28% explanatory power for the total variance.

6. Conclusion

The purpose of this study is to investigate the effect of leisure sports participation motivation on exercise commitment and quality of life. The conclusions obtained through the research procedure to achieve these research objectives are as follows. First, it was found that the motivation to participate in leisure sports has a partial effect on exercise commitment. In other words, the higher the inner motive and the external motive of the leisure sports participation motive, the higher the cognitive immersion of exercise immersion is recognized, and the higher the external motive of the leisure sports participation motivation is, the higher the action immersion is recognized. Second, it was found that the motivation to participate in leisure sports partially affects the quality of life. In other words, it was found that the higher the inner motive and the external motive of the leisure sports participation motivation, the higher the perception of the psychological area, living area, and self-satisfaction of quality of life. Third, it was found that the commitment to exercise in leisure sports has a partial effect on the quality of life. In other words, the higher the action immersion of the leisure sports exercise immersion, the higher the psychological area was recognized, and the higher the cognitive immersion was, the higher the living area and self-satisfaction were perceived.

References

- [1] H. G. Lee and Y.H. Kim, "An Integration of Theory of planned behavior and Stages of Change to Predict Physical Activity and Health-related Quality of Life," *Journal of Sport and Leisure Studies*, Vol. 56, No. 1, pp. 651-663, 2014.
- [2] S. M. Kim and M.S. Choi, "The Causal Effects Among Participants' Curiosity, Perceived Exertion, and Exercise Emotion on Exercise Adherence Behavior in Marine Leisure Sports," *Korean Journal of Physical Education*, Vol. 55, No. 5, pp. 127-142, 2016.
- [3] L. A. Lee and S. M. Park, "Relation between Online Sports Community Awareness and Sports Activity," *Journal of The Institute of Internet Broadcasting and Communication (IIBC)*, Vol. 18, No. 10, pp. 1343-4500, 2015
- [4] S. M. Park and A. H Lee, "An Influence of the Using Pattern of Sports Media on Loyalty & Sports Attitude," *Journal of International Information Institute*, Vol. 19, No. 9a, pp. 1344-8994, 2016.
- [5] Kim, N. I, and Park, S. M, The Relationship between Media Sports Involvement Experiences and Sports Values and Sports Participation, *International Journal of Applied Engineering Research*, Vol. 12, No. 20, pp. 9768-9773. 2017.

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- [6] S. Y. Hong, H. O. Kim and Ann M. S. Lee, S. Y, Cha J. S., "A Study on description method of product information by utilizing a display specific for store support," *International Journal of Advanced Smart Convergence (IJASC)*, Vol. 4, No. 2, pp. 79-83, 2015.
- [7] S. H. Han, "Characteristics and Comparison of Popular Channels on Internet Game Broadcasting: Focus on Twitch TV. *The Journal of the Institute of Internet, Broadcasting and Communication (JIIBC)*," Vol. 16, No. 4, pp.7-14. 2016.
- [8] J. M. Lim and S.W. Lim, "Study on Relations Among Water Leisure Sports Participants' Leisure Motivation, Leisure Flow, *Leisure Satisfaction and Psychological Well-being*", Vol. 53, No. 6, pp. 417-429, 2014.
- [9] B. H. Lee, "*Relationship among Life Style, Selection Attributes, Sports Flow and Post Purchase Behavior of Leisure Sports Participants*", Doctor, University of Kyonggi, Seoul, Korea, 2014.
- [10] Y. S. Jang, "*The Causal Relationship among Participation Motivation, Exercise Passion, Physical Self-Efficacy, and Quality of Life in Leisure Sports Participants*", Doctor, University of Dankook, Yongin, Korea, 2016.