

A Study on Influence of 'Sport for All' Participant's Exercise Experience Factors on Emotional Response, Exercise Satisfaction and Exercise Persistence

Kye-Sok Lee¹ and Seung-Yong Kim²

¹Department of Physical Education,
Soongsil University, Seoul, 06978, South Korea

²Division of Sport Science, Hanyang University,
Ansan, 15588, South Korea

January 26, 2018

Abstract

This study intended to look into 'sport for all' participants' exercise experience factors, and aims to inquire into the relations between such factors, emotional response, exercise satisfaction and exercise persistence. The concrete data processing method was as follows: This study conducted frequency analysis, exploratory factor analysis, reliability analysis, correlation analysis and regression analysis using PASW Ver. 18.0 to explain research subjects characteristic analysis, and questionnaire items. The results of this research were as follows: First, exercise experience factors had an influence on an emotional response. Second, the sub-factors of emotional responses-arousal and domination had a significant influence on exercise satisfaction. Third, the sub-factors of emotional responses-enjoyment and arousal had a significant influence on exercise persistence. Fourth, exercise satisfaction had a significant influence on exercise persistence. This study thinks that it might be possible to provide a leader of sport for all, or hands-on workers at

the field of sport for all with theoretical implications in the management of sport for all participants in relation to the base expansion of sport for all and its qualitative growth.

Key Words : Sport for All, exercise experience factors, emotional response, exercise satisfaction, exercise persistence

1 INTRODUCTION

Modern people come to get interested in empirical consumption away from material consumption with their desires to increase the quality of life becoming stronger (Baek, 2013). Such a phenomenon might be also true of sports activity. It is thought that the experience in sports activity is the consumption activity based on a participant's pleasant experience and thrill, etc., which induces a participant to think much of empirical consumption.

The exercise experience perceived by sport for all participants might be regarded as a very necessary part on the part of modern people. The researches on positive effects produced by experiencing sport for all, such as problem-solving of the lack of exercise, reduction in stress, and desirable sociality development, etc. are briskly in progress.

The sport for all participants is receiving services corresponding to the expenses paid for the related sport facility use and sports event, etc. In such a service industry, feelings towards customers play a very important part. Lee & Lim' (2002) research defined feelings as the ones which customers come to directly experience as a result of consumption.

If participants should form positive feelings through their experience in sport for all, they might immediately feel satisfaction with the experience-creating subject. Satisfaction comes up when a consumer's expectation is met, or exceeds with the feedback on post-experience evaluation, and such satisfaction serves to increase more the possibility of re-purchase of the object of the experience, and strengthens a consumer's positive attitude towards the subject of positive experience (Assael, 1998).

Looking into the preceding researches on the hypotheses set up by this study, first, Kwon' (2014) research presented that the consumption experience factor has a positive influence on emo-

tional response. Such a research result supports that sport for all participants' exercise experience itself could have an influence on participant-perceived feelings.

Second, Kim' (2012) research on the relations between emotional response and exercise satisfaction also reported that a consumer-perceived emotional response has a significant influence on satisfaction. Such a research result makes it possible to infer that emotional response could have an influence on exercise satisfaction.

Third, as regards the relations between emotional response and exercise persistence, Lee & Jeong' (2013) research presented that consumers-perceived affective attachment has a positive influence on their intention. Such a research result makes it possible to analogize that emotional response could have an influence on exercise persistence.

Fourth, as regards the relations between exercise satisfaction and exercise persistence, Bitner' (1990) research argued that a consumer-perceived satisfaction has an influence not only on post-purchase attitude but also on a positive, or negative word of mouth effect on others. Such a research result supports that exercise satisfaction could have an influence on exercise persistence.

Looking at this issue synthetically, the more 'sport for all' participants perceive their exercise participation experience as favorable, the more there might be the formation of positive feelings for participation itself, which could be linked to satisfaction with participation. Accordingly, this study intended to look into sport for all participants' exercise experience factors and aims to inquire into the relations between such factors, emotional response, exercise satisfaction and exercise persistence.

This study set up the hypotheses as follows to inquire into the purpose set up in this research. In addition, the research model, which this study intended to inquire into centering on hypotheses, are as in (Fig. 1).

Hypothesis 1. Sport for all Participants' Exercise Experience Factors will have an influence on Emotional Response.

Hypothesis 2. Sport for all Participants' Emotional Response will have an influence on Exercise Satisfaction.

Hypothesis 3. Sport for all Participants' Emotional Response will have an influence on Exercise Persistence.

Hypothesis 4. Sport for all Participants' Exercise Satisfaction

will have an influence on Exercise Persistence.

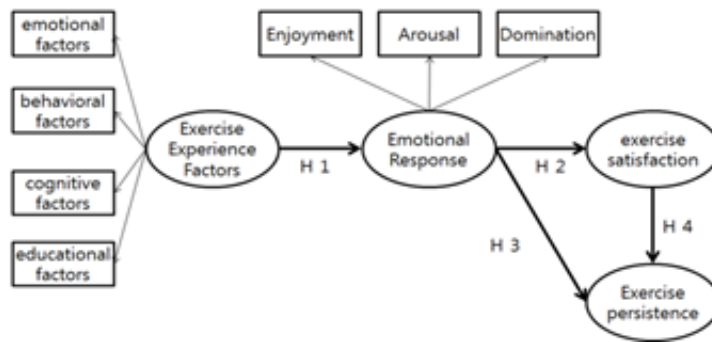


Fig. 1: Research model

2 MATERIALS AND METHODS

RESEARCH SUBJECT: This research subject is the participant who is living in Gyeonggi-do region as of 2017, and participating in sport for all more than once a week. The basis of selection is because the region where sport for all facilities is distributed the most in Korea is the very Gyeonggi-do region. As a sampling procedure, this study selected 500 participants who are continuously participating in sport for all at a public sports facilities and private sports facilities located in Gyeonggi-do region. The (table 1) indicates participants' demographic characteristics.

Table I Demographic characteristics of research subject

		Frequency	%
Gender	female	223	52.0
	male	206	48.0
	total	429	100.0
Exercise	aerobics exercise	239	55.7
	anaerobic exercise	190	44.3
	total	429	100.0

Age	those under the 30s	83	19.3
	between the 30s and under the 40s	144	33.6
	between the 40s and under the 50s	104	24.2
	more than the 50s	98	22.8
	total	429	100.0
Participation frequency	once a week	66	15.4
	twice a week	124	28.9
	three times a week	143	33.3
	four times a week	75	17.5
	more than 5 times a week	21	4.9
	total	429	100.0
Participation period	under 6 months	61	14.2
	between 6 months and under 1 year	74	17.2
	between 1 year and under 2 years	159	37.1
	between 2 years and under 3 years	100	23.3
	more than 3 years	35	8.2
total	429	100.0	

As regards research subject sampling, this study selected the participants taking part in sport for all activity as a population and then conducted a survey using the convenience sampling method out of non-probability sampling methods due to the difficulty in preparing the sampling frame when taking into account sports events, sports types and region, etc.

This study primarily collected the survey reply data and deleted the survey replies, which were regarded as unfaithful in the process of coding, in the statistical processing. Then, this study did statistical processing of final effective samples of 429 copies in total to the exclusion of 71 copies, which were regarded as unfaithful replies out of a total of 500 questionnaires.

INQUIRY TOOL: This study used a questionnaire as a research tool, and organized the questionnaire in 5-point Likert scale uniformly. Detailed research tool contents by variable are as follows:

First, as a survey for measuring exercise experience factors, this

study organized it in 5-phase Likert scale by modifying and supplementing the scale used in Assael (1998) research in line with this study. This study organized the questionnaire with a total of 19 questions including sub-factors like emotional factor, behavioral factors, cognitive factors, and educational factors

Second, as a survey for measuring an emotional response, this study organized it in 5-phase Likert scale by modifying and supplementing the scale used in Baek' (2013) research in line with this study. This study organized the survey questionnaire with a total of 15 questions including sub-factors like enjoyment, arousal, and domination.

Third, as a survey for measuring exercise satisfaction, this study organized it 4 questions in 5-phase Likert scale used in Oliver (1993) research by modifying and supplementing the scale in line with the purpose of this study.

Fourth, as a survey for measuring exercise persistence, this study organized it with 2 questions in 5-phase Likert scale by modifying and supplementing the scale used in Jang (2007) research.

This study conducted exploratory factor analysis, reliability analysis, and correlation analysis to survey the validity and reliability of individual variables. The (Table 2) and (Table 3) are the result of the exploratory factor analysis by factor for a validity test.

(Table 2) shows the result of the exploratory factor analysis of exercise experience factors. As shown in (Table 2), this study could learn that the sub-factors of exercise experience factors were composed of the four factors, i.e. educational factors, behavioral factors, cognitive factors, and emotional factors. The cumulative dispersion ratio of exercise experience factors was found to be 67.155%.

Table II RESULTS OF EXPLORATION FACTOR ANALYSIS ON EXERCISE EXPERIENCE FACTORS

	Factor 1	Factor 2	Factor 3	Factor 4	h ²
behavioral 3	.793	.262	.130	.088	.643
behavioral 4	.769	.288	.199	.120	.747
behavioral 2	.736	.056	.266	.300	.636
behavioral 1	.594	.436	.210	.089	.590

behavioral 5	.551	.210	.236	.323	.622
educational 2	.196	.779	.262	.180	.595
educational 1	.090	.689	.321	.239	.706
educational 5	.260	.664	.039	.335	.722
educational 4	.390	.636	.126	.134	.728
educational 3	.314	.629	.331	.179	.508
cognitive 3	.109	.227	.809	.225	.588
cognitive 2	.243	.121	.716	.320	.689
cognitive 1	.338	.270	.630	.057	.768
cognitive 4	.241	.251	.609	.280	.571
emotional 2	.146	.233	.191	.852	.697
emotional 3	.269	.203	.298	.753	.838
emotional 1	.157	.287	.251	.726	.769
Eigenvalue	3.144	3.091	2.650	2.531	
Variance (%)	18.495	18.183	15.588	14.889	
Accumulation (%)	18.495	36.678	52.266	67.155	

Table III RESULTS OF EXPLORATION FACTOR ANALYSIS ON EMOTIONAL RESPONSE FACTORS

	Factor 1	Factor 2	Factor 3	h ²
enjoyment 3	.833	.135	.205	.750
enjoyment 4	.723	.258	.248	.714
enjoyment 2	.717	.362	.177	.721
enjoyment 1	.697	.394	.140	.662
enjoyment 5	.600	.260	.322	.676
arousal 1	.192	.822	.192	.754
arousal 2	.313	.762	.188	.651
arousal 3	.374	.739	.184	.532
domination 1	.275	.156	.845	.815

domination 2	.229	.258	.831	.810
Eigenvalue	2.979	2.334	1.769	
Variance (%)	29.794	23.338	17.693	
Accumulation (%)	29.794	53.132	70.826	

Table IV RELIABILITY ANALYSIS

		Cronbach's α
Exercise experience factors	Behavioral	.848
	Educational	.850
	Cognitive	.811
	Emotional	.856
Emotional response factors	Enjoyment	.858
	Arousal	.811
	Domination	.775
Exercise satisfaction		.861
Exercise persistence		.877

(Table 3) is the result of the exploratory factor analysis of the emotional response. As shown in (Table 3), the sub-factors of the emotional response were comprised of the three factors, i.e. enjoyment, arousal, and domination. The cumulative dispersion ratio of the emotional response was found to be 70.826%. As a result of the exploratory factor analysis of exercise satisfaction and exercise persistence, they were classified as a singular concept, respectively.

This study conducted Cronbach's α test to find the internal consistency reliability coefficient of individual variables. The result of the reliability analysis is as in (Table 4), and this study could secure comparatively high reliability as Cronbach's α values of all variables meet over .7 presented in Nunnally & Bernstein' (1994) research.

In addition, this study conducted correlation analysis to confirm the satisfaction level with discriminant validity between variables, whose singular dimensionality was identified. And the analysis result is as in (Table 5). Discriminant validity is existent unless the correlation coefficient between individual constructs in the 95% confidence intervals is 1 (Anderson and Gerbing, 1988). In addition,

in the research by Challagalla & Shervani (1996),

Table V
CORRELATION ANALYSIS

Dependent	1	2	3	4	5	6	7	8	9
Educational	1								
Behavioral	.679**	1							
Cognitive	.632**	.625**	1						
Emotional	.604**	.547**	.618**	1					
Enjoyment	.543**	.532**	.518**	.473**	1				
Arousal	.504**	.548**	.514**	.459**	.676**	1			
Domination	.481**	.475**	.463**	.386**	.580**	.504**	1		
Exercise satisfaction	.574**	.482**	.467**	.482**	.371**	.480**	.353**	1	
Exercise persistence	.483**	.482**	.526**	.465**	.412**	.368**	.323**	.322**	1

**p<.01

they once presented that individual factors have discriminant validity when the null hypothesis that correlation is 1 is rejected. Accordingly, after conducting factor analysis targeting the variables used for this research, this study confirmed in what direction the relationship existed between individual variables, which were classified as singular dimensionality, and to what extent of the relationship the factor analysis explained.

DATA PROCESSING: Detailed data processing method is as follows: This study conducted frequency analysis, exploratory factor analysis, reliability analysis, correlation analysis and regression analysis using PASW Ver. 18.0 to explain the characteristic analysis of the research targets, and questionnaire items.

3 RESULTS AND DISCUSSION

RELATIONS BETWEEN EXERCISE EXPERIENCE FACTORS AND EMOTIONAL RESPONSE:

This study conducted multi-regression analysis to inquire into the relations between exercise experience factors and emotional response. The analysis result showed that exercise experience factors have an influence on an emotional response. Educational factors, behavioral factors and cognitive factors-the sub-factors of exercise experience factors- were found to have a significant influence on enjoyment, arousal, and domination-sub-factors of emotional responses, whereas emotional factors were found to have an influence on enjoyment and arousal, but not to have an influence on domination.

The power of exercise experience factors explaining a change of pleasure, i.e. the sub-factor of the emotional response was found to

be 37.7%; in the standardized regression coefficient, the education factor was found to be the highest .219, followed by behavioral factor (.209), cognitive factor (.176), and emotional factor (.117). The power of exercise experience factors explaining a change of arousal, i.e. the sub-factor of the emotional response was found to be 36.7%. In case of standardized regression coefficient, behavioral factor was found to be the highest .284, followed by cognitive factor (.190), educational factor (.123), and emotional factor (.112).

The power of exercise experience factors explaining the sub-factor of the emotional response, i.e. a change of the sense of domination was found to be 29.4%, and in standardized regression coefficient, the educational factor was found to be the highest .207, followed by behavioral factor (.199), cognitive factor (.184), and emotional factor (.038). Accordingly, this study could learn that a positive experience in exercise is an important antecedent that arouses a positive sentiment on participation in sport for all. Through such a result, it might be possible to provide theoretical/conceptual grounds even to the follow-up researchers who carry out the study for revitalization of sport for all, and the study on emotional responses to sport for all. Detailed contents thereof are as in (Table 6).

Table VI REGRESSION ANALYSIS

Dependent	Independent	Standardized	t
		Coefficients β	
Enjoyment	Educational	.219	3.770***
	Behavioral	.209	3.741***
	Cognitive	.176	3.155**
	Emotional	.117	2.242*
R ² = .377, F= 64.220, p= .000			
Arousal	Educational	.123	2.103***
	Behavioral	.284	5.029***
	Cognitive	.190	3.377**
	Emotional	.112	2.114*

R ² = .367, F= 61.350, p= .000			
Domination	Educational	.207	3.341**
	Behavioral	.199	3.343**
	Cognitive	.184	3.100**
	Emotional	.038	.680

R²= .294, F= 44.163, p= .000 *p<.05, **p<.01, ***p<.001

Table VII Regression analysis

Dependent	Independent	Standardized coefficients β	t
Exercise satisfaction	Enjoyment	.022	.364
	Arousal	.394	6.777***
	Domination	.141	2.687**

R²= .247, F= 46.557, p= .000 **p<.01, ***p<.001

Table VIII REGRESSION ANALYSIS

Dependent	Independent	Standardized coefficients β	t
Exercise persistence	Enjoyment	.256	4.004***
	Arousal	.144	2.384*
	Domination	.103	1.887

R²= .192, F= 33.567, p= .000 *p<.05, ***p<.001

Table IX REGRESSION ANALYSIS

Dependent	Independent	Standardized coefficients β	t
Exercise persistence	Exercise satisfaction	.322	7.024***

R²= .104, F= 49.334, p= .000 ***p<.001

RELATIONS BETWEEN EMOTIONAL RESPONSE AND EXERCISE SATISFACTION: This study conducted multi-regression analysis to inquire into the relations between emotional response and exercise satisfaction. The result indicated that the sub-factors of emotional responses-arousal and domination had a significant influence on exercise satisfaction, but enjoyment didnt have an influence on exercise satisfaction.

The power of emotional responses explaining a change of exercise satisfaction was found to be 24.7%, and in standardized regression coefficient, arousal was found to be the highest .394, followed by a sense of domination (.141), and pleasure (.022). Thus, this study could learn that once the participants in sport for all form a positive sentiment & attitude through exercise, it could have a big influence on satisfaction with exercise participation. As consumers sentiment directly respond to the marketing stimulus of a service-offering company, their emotional responses can be regarded as playing a vital part in grasping consumer behavior. It would be necessary to do operation, management and guidance, which can give a feeling of satisfaction to exercise participants through this process. Details are as in (Table 7).

RELATIONS BETWEEN EMOTIONAL RESPONSE AND EXERCISE PERSISTENCE: This study conducted multi-regression analysis to inquire into the relations between emotional response and exercise persistence. The analysis result revealed that the sub-factors of emotional responses-enjoyment and arousal had a significant influence on exercise persistence, but domination didnt have an influence on exercise persistence.

The power of emotional responses explaining a change of ex-

ercise persistence was found to be 19.2%, and in standardized regression coefficient, the pleasure was found to be the highest .256, followed by arousal (.144), and a sense of domination (.103). Therefore, this study could understand that the participants in life for all feel a positive sentiment through exercise, through which they induce themselves to continuously participate in the exercise. Such an influence can be regarded as an important means of leading a beautiful life through the physical fitness and psychological stability of individual participants in sport for all. The details are as in (Table 8).

RELATIONS BETWEEN EXERCISE SATISFACTION AND EXERCISE PERSISTENCE: This study conducted simple regression analysis to inquire into the relations between exercise satisfaction and exercise persistence. The analysis result showed that exercise satisfaction had a significant influence on exercise persistence.

The power of exercise satisfaction explaining a change of exercise persistence was found to be 10.4%, and the standardized regression coefficient was found to be .322. Accordingly, this study could understand that exercise satisfaction is an important antecedent to the exercise persistence intention. Looking into the researches on satisfaction in the past, they thought that final purchase and persistent relations were achieved through satisfaction based on consumers' reasonable judgment, but with the change of the times, they come to think much of consumers emotional aspect as well. Putting such results together, it might not be desirable to overlook the emotional marketing strategy which stimulates 'sport for all' participants' emotional factor. Further details are as in (Table 9).

4 CONCLUSION

This study looked into 'sport for all' participants' exercise experience factors and confirmed the results as follows by verifying the relationships between such factors and emotional responses, exercise satisfaction, and exercise persistence.

First, Exercise experience factors have an influence on an emotional response. Second, The sub-factors of emotional responses-arousal and domination had a significant influence on exercise satis-

faction, but enjoyment didn't have an influence on exercise satisfaction. Third, The sub-factors of emotional responses-enjoyment and arousal had a significant influence on exercise persistence, but domination didn't have an influence on exercise persistence. Fourth, Exercise satisfaction had a significant influence on exercise persistence.

First, Exercise experience factors have an influence on an emotional response. Second, The sub-factors of emotional responses-arousal and domination had a significant influence on exercise satisfaction, but enjoyment didn't have an influence on exercise satisfaction. Third, The sub-factors of emotional responses-enjoyment and arousal had a significant influence on exercise persistence, but domination didn't have an influence on exercise persistence. Fourth, Exercise satisfaction had a significant influence on exercise persistence.

In addition, it is expected that the task of grasping the relationship between 'sport for all' participants' exercise experience factors and emotional responses, exercise satisfaction, and exercise persistence will produce an effect of basic information offering from the educational aspect of the field of sport for all. Also, this study thinks that it might be possible to provide a leader of sport for all, or hands-on workers at the field of sport for all with theoretical implications in the management of sport for all participants in relation to the base expansion of sport for all and its qualitative growth. In addition, it might be possible to provide elementary theoretical grounds to the basic also important relationship between learner variables through the research on the relationship between such concepts; furthermore, it is judged that such a research will not only provide basic data to revitalization of sport for all but also contribute to formation of the attitude and perception as a positive also important participant towards sport for all.

References

- [1] Anderson, J.C. and Gerbing, D.W., 1998. *Structural equation modeling in practice: A review and recommended two-step approach*. Psychological Bulletin, 103 (3): 411-423.

- [2] Assael, H., 1998. *Customer behavior and marketing action*. Cincinnati, South-Western College Publication, Ohio.
- [3] Baek, K.M., 2013. *The influence of event visitor's experiential value on emotional response, place attachment and attitude toward host region*. [Unpublished doctoral dissertation], Suwon: Graduate School, Kyonggi University. (URL: <http://www.riss.kr/link?id=T13420661>)
- [4] Bitner, M.J., 1990. *Evaluating service encounters: Effects of physical surroundings and employee responses*. *Journal of Marketing*, 54 (2): 69-82.
- [5] Challagalla, G.N. and Shervani, T.A., 1996. *Dimension and types of supervisory control: Effects on salesperson performance and satisfaction*. *Journal of Marketing*, 60 (1): 89-105.
- [6] Jang, S.W., 2007. *Relationship with the enjoyment source, involvement, leisure satisfaction and intention to exercise adherence of the old participants in dance sports*. [Unpublished doctoral dissertation], Seoul: Graduate School, Dongduk Women's University. (URL: <http://www.riss.kr/link?id=T11152915>)
- [7] Kim, H.J., 2012. *Causal relations among food model attributes of food court, emotional response, trust, satisfaction, and customer behavior*. [Unpublished Doctor Dissertation], Seoul: Graduate School, Sejong University. (URL: <http://www.riss.kr/link?id=T12639480>)
- [8] Kwon, K.J., 2014. *The influences of the consumption experiences on customer's emotional responses and customer attitude at coffee stores franchise coffee shop vs. independent coffee shop*. *Journal of Foodservice Management*, 17 (2): 27-48. (URL: <http://www.riss.kr/link?id=A99961214>)
- [9] Lee, H.S. and Lim, J.H., 2002. *Measuring the consumption-related emotion construct*. *Korea Marketing Review*, 17 (3):55-91. (URL: <http://www.riss.kr/link?id=A100294715>)
- [10] Lee, K.Y. and Jeong, S.M., 2013. *Effects of facebook fanpage user's emotional attachment on their eWOM intention: With*

emphasis on that intermediating effect of consumer-brand relationship satisfaction. The Korean Journal of Advertising, 24 (8): 31-51. (URL: <http://www.riss.kr/link?id=A99873238>)

- [11] Nunnally, J.C. and Bernstein, I.H., 1994. *Psychometric theory*. New York: McGraw-Hill.
- [12] Oliver, A., 1993. *Cognitive affective and attributes base of the satisfaction response.* Journal of Consumer Research, 20 (3): 418-430.

