

# Analysis of the Causal Relationship Between Sensory Pursuit Tendency, Exercise Behavior, Exercise Intention, and Safety Atmosphere of Participants in Marine Leisure Sports

Young-Hoon Kwon<sup>1</sup> and Chun-Ho Yang<sup>2</sup>

## Abstract

*Background/Objectives: The purpose of this study was to confirm the causal relationships among sensory pursuit tendency, exercise behavior, exercise intention, and safety atmosphere of marine leisure sports participants. Methods/Statistical analysis: The study subjects were 229 marine leisure sports participants who were surveyed. Data processing involved frequency analysis, correlation analysis, and factor analysis using SPSS 24.0, and path analysis using AMOS 21.0, leading to the following results. First, it was found that sensory pursuit tendency of marine leisure sports participants had a direct structure that leads to safety atmosphere. Second, exercise behavior and exercise intention of marine leisure sports participants partially mediated the relationship between sensory pursuit tendency and safety atmosphere. Improvements/Applications: These results logically explain the reasons for participating in marine leisure sports and derive meaningful results.*

**Keywords:** Relationships, Tendency, Exercise, Behavior, Intention, Participants.

## INTRODUCTION

Research related to participants in marine leisure sports investigates the relationships between various variables to find causal relationships concerning participants' psychological variables. Socio-psychological variables, such as costs and services associated with participation, programs, experiential environment factors, psychological well-being, fun, and sensory pursuit, are studied as causal variables [1]. However, these variables have been studied only as participation variables in specific fields or events within marine leisure sports. The purpose of participating in marine leisure sports is to experience emotions of enjoyment rather than competition. Participants feel happiness from satisfying their needs through adventure and a spirit of challenge. Ultimately, the primary purpose of participating in marine leisure sports is to seek psychological benefits. Nonetheless, marine leisure sports are classified as high-risk sports. High-risk sports involve deliberately pursuing uncertain risks, including the risk of injury or death [2]. Despite being classified as high-risk sports, the number of participants in marine leisure sports is steadily increasing along with economic growth. In 2015, approximately 730,000 people participated in marine leisure sports experience programs organized by the Ministry of Oceans and Fisheries [3]. Despite the continuous increase in participation, specific causal relationships for this increase have not been thoroughly verified. Therefore, it is necessary to study the factors that can mitigate the risk perception of high-risk marine leisure sports and actively intervene in the field of marine safety. In other words, a structural analysis of psychological variables such as sensory pursuit tendency, exercise behavior, exercise intention, and safety atmosphere of participants in marine leisure sports is needed.

Participants in marine leisure sports possess a very high sensory pursuit tendency and have a strong personal desire for diverse experiences and sensations [4]. Groups with a high sensory pursuit tendency participate in adventure sports and handle extreme situations well [5]. They reject simple and boring lives and seek new situations and novel experiences [6]. The degree of sensory pursuit tendency among high-risk sports participants follows the order of rock climbing, paragliding, and skin diving. Participation in high-risk sports is closely related to the main mediating variables in determining sports types [7]. Sensory pursuit tendency leads to a continuous intention to participate in adventure sports due to various fun factors [8]. Marine leisure sports provide psychological enjoyment. Sensory pursuit tendency, as a variable that increases the desire to participate,

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<sup>1</sup> Lecturer, Dept, Leisure Marine Sports, Hanseo University, Seosan, 31962, Korea, Email: marine-boy1@naver.com

<sup>2</sup> Professor, Dept, Leisure Marine Sports, Hanseo University, Seosan, 31962, Korea, Email: healthyang@hanseo.ac.kr, (Corresponding Author), Mobile Phone: +82-10-5651-3496

shows a higher level as participation in high-risk sports increases [9]. In this context, exercise intention, as an antecedent variable affecting exercise participation, acts through a psychological decision-making process and is perceived as an outcome and evaluation of physical activity [10]. The stronger the intention to act, the higher the likelihood of practice. Exercise intention is divided into three factors: subjective norm, perceived behavioral control, and behavioral intention [11]. Exercise behavior is determined by the evaluation of social influence and perceived control. Subjective norms are social influences or pressures. Perceived behavioral control is the level at which one perceives the ease or difficulty of exercise. Behavioral intention appears when obstacles or hindrances are absent, and resources or opportunities such as time, cost, and skills are perceived [10]. This theoretical basis suggests that the negative image of high-risk marine leisure sports can hinder exercise behavior as planned behavior. Consequently, it can cause a decrease in marine leisure sports activities. However, on the other hand, the positive perception of marine leisure sports being safe can also be mediated. In other words, the safety perception evaluation of marine leisure sports can be theoretically framed as planned behavior. If safety atmosphere is involved as subjective norm and perceived control in this study, the mediating effect of sensory pursuit tendency on exercise behavior in marine leisure sports can be determined. It can also explain the reasons for exercise behavior in marine leisure sports participation. Furthermore, mediating the safety atmosphere can prevent safety accidents and establish marine leisure sports as a safe sport. The exploration of socio-psychological variables for preventing safety accidents in marine leisure sports implies the need for research to find an approach to safety. Through this process, it is considered meaningful to identify key variables in marine leisure sports participation. Therefore, this study aims to verify the causal relationships among sensory pursuit tendency, exercise behavior, exercise intention, and safety atmosphere of marine leisure sports participants. The specific research questions for achieving this purpose are as follows. First, is there a direct influence relationship between sensory pursuit tendency and safety atmosphere of marine leisure sports participants? Second, do exercise behavior and exercise intention mediate the relationship between sensory pursuit tendency and safety atmosphere of marine leisure sports participants?

## Research Method

### Subjects of the Study

Table 1. General Characteristics of Study Subjects

Variable	Category	Number (n)	Percentage (%)
Gender	Male	151	65.9
	Female	78	34.1
Age	20s	74	32.3
	30s	65	28.4
	40s	52	22.7
	50s and above	38	16.6
Final Education Level	High School Graduate	42	18.3
	Junior College Graduate	49	21.4
	University Graduate	101	44.1
	Graduate School and above	37	16.2
Occupation	Office Worker	45	19.6
	Service Worker	50	21.8
	Self-Employed	57	24.9
	Production Worker	40	17.5
	Student (Graduate School)	37	16.2
Participation Event	Yacht	78	34.1
	Rowing/Canoeing	65	28.4
	Water Skiing	46	20.1
	Windsurfing	40	17.4
Total		229	100

The subjects of this study were adults participating in marine leisure sports. Convenience sampling was used for sampling the survey subjects. The participation period for marine leisure sports was set to less than six months, a period that could influence behavioral intention. A survey was conducted on marine leisure sports participants who understood the purpose and significance of the survey. A total of 229 responses, excluding unreliable responses, were used for final analysis. The general characteristics of the study subjects are shown in <Table 1>.

## **Survey Tools**

This study utilized a questionnaire as a survey tool to analyze the causal relationships among sensory pursuit tendency, exercise behavior, exercise intention, and safety atmosphere of marine leisure sports participants. The questionnaire used in this study was based on questionnaires verified through previous research. It was partially modified to fit the purpose of this study. The questionnaire consisted of five items on demographic characteristics, 24 items on the independent variable sensory pursuit tendency, 11 items on the dependent variable safety atmosphere, nine items on the mediating variable exercise behavior, and a single item on exercise intention. Measurement was done using a 5-point Likert scale (1 point for strongly disagree to 5 points for strongly agree).

## **Sensory Pursuit Tendency**

The sensory pursuit tendency scale was modified from the questionnaire by Yoo & Kang (2002) [4], selecting 28 items for four factors. Two items from Disinhibition and one item from Experience Seeking were excluded through expert consultation. The sub-factors of sensory pursuit tendency consisted of four factors: Thrill Adventure (seven items), Experience Seeking (eight items), Boredom Susceptibility (four items), and Disinhibition (four items).

## **Exercise Behavior**

The exercise behavior scale was modified from the questionnaire by Ajzen (1988) [13] on the theory of planned behavior, selecting 11 items for two factors. Two items on the perceived behavioral control level were excluded through expert consultation. The sub-factors of exercise behavior consisted of two factors: Physical Activity Attitude (six items) and Subjective Norm (three items).

## **Exercise Intention**

The exercise intention scale was modified from the questionnaire by Courneya (1995) [14], selecting three items. Exercise intention was composed of a single item.

## **Safety Atmosphere**

The safety atmosphere scale was modified from the questionnaire by Griffin & Neal (2000) [15] on organizational safety characteristics to fit the sports field, selecting 13 items for three factors. Two items on communication were excluded through expert consultation. The sub-factors of safety atmosphere consisted of three factors: Management Value (four items), Communication (three items), and Safety Practice (four items).

## **Validity and Reliability**

To determine the validity and reliability of the questionnaire on sensory pursuit tendency, exploratory factor analysis and reliability verification were conducted. The results are shown in <Table 2>.

## **Sensory Pursuit Tendency**

As shown in <Table 2>, the KMO value was .908 as a result of exploratory factor analysis. Bartlett's test of sphericity  $\chi^2=3262.414$ ,  $df=276$ ,  $p=.001$  was statistically significant. Accordingly, it was found that the collected data were suitable for factor analysis. As a result of factor analysis of 24 items of sensory pursuit tendency, four factors were extracted, explaining 57.147% of the total variance. To determine the reliability of the sensory pursuit tendency questionnaire, the Cronbach's  $\alpha$  coefficient for internal consistency among the items was

calculated. The results for each factor were: Thrill Adventure .877, Experience Seeking .845, Boredom Susceptibility .821, and Disinhibition .781. The reliability values were generally found to be satisfactory.

Items	Thrill Adventure	Experience Seeking	Boredom Susceptibility	Disinhibition
Item03	.657	.231	.162	.196
Item02	.680	.324	.036	.106
Item01	.630	.311	.134	.130
Item06	.789	.126	.068	.252
Item05	.551	.261	.080	-.055
Item04	.806	.179	.140	.201
Item07	.732	.173	.028	.249
Item08	.366	.606	.029	-.071
Item09	.364	.616	.229	-.068
Item11	.394	.590	.203	.032
Item10	.149	.641	.121	.040
Item13	.254	.576	.251	.131
Item12	.075	.640	.059	.274
Item14	.067	.693	.270	.226
Item16	.219	.661	-.033	.120
Item15	.233	.665	.035	.174
Item17	.082	.144	.795	.169
Item20	.178	.114	.796	.197
Item19	.040	.142	.842	.092
Item18	.151	.171	.659	.385
Item22	.123	.089	.139	.654
Item21	.216	.065	.358	.665
Item23	.149	.213	.089	.741
Item24	.185	.108	.206	.685
Eigenvalue	4.220	3.996	2.945	2.558
Variance%	17.587	16.652	12.272	10.663
Cumulative%	17.587	34.240	46.513	57.147
Reliability	.877	.845	.821	.781
Kaiser-Meyer-Olkin=.908 Bartlett's Test of Sphericity( $\chi^2=3262.414$ , $df=276$ , $p=.000$ )				

### Exercise Behavior

As shown in <Table 3>, the KMO value was .933 as a result of exploratory factor analysis. Bartlett's test of sphericity  $\chi^2=2401.762$ ,  $df=36$ ,  $p=.001$  was statistically significant. Accordingly, it was found that the collected data were suitable for factor analysis. As a result of factor analysis of 9 items of exercise behavior, two factors were extracted, explaining 78.067% of the total variance. To determine the reliability of the exercise behavior questionnaire, the Cronbach's  $\alpha$  coefficient for internal consistency among the items was calculated. The results for each factor were: Physical Activity Attitude .921, Subjective Norm .928. The reliability values were generally found to be satisfactory.

Items	Physical Activity Attitude	Subjective Norm
Item05	.785	.050
Item02	.898	.022
Item01	.893	.010
Item06	.923	-.148
Item03	.729	.054
Item04	.726	.226
Item09	.031	.929
Item08	-.026	.918
Item07	.053	.922

Eigenvalue	5.872	1.152
Variance%	65.257	12.809
Cumulative%	65.257	78.067
Reliability	.921	.928
Kaiser-Meyer-Olkin=.933 BBartlett's Test of Sphericity( $\chi^2=2401.762, df=36, p=.000$ )		

## Safety Atmosphere

Items	Management Value	Communication	Safety Practice
Item04	<b>.833</b>	.300	.236
Item03	<b>.842</b>	.322	.223
Item02	<b>.778</b>	.374	.273
Item01	<b>.657</b>	.113	.366
Item05	.378	<b>.669</b>	.292
Item06	.237	<b>.816</b>	.274
Item07	.290	<b>.805</b>	.310
Item11	.112	.266	<b>.784</b>
Item09	.375	.238	<b>.755</b>
Item10	.296	.249	<b>.798</b>
Item08	.348	.252	<b>.785</b>
Eigenvalue	3.093	2.336	3.050
Variance%	28.123	21.245	27.732
Cumulative%	28.123	77.102	55.856
Reliability	.886	.849	.892
Kaiser-Meyer-Olkin=.920 Bartlett's Test of Sphericity( $\chi^2=2398.651, df=55, p=.000$ )			

As shown in <Table 4>, the KMO value was .920 as a result of exploratory factor analysis. Bartlett's test of sphericity  $\chi^2=2398.651, df=55, p=.001$  was statistically significant. Accordingly, it was found that the collected data were suitable for factor analysis. As a result of factor analysis of 11 items of safety atmosphere, three factors were extracted, explaining 55.856% of the total variance. To determine the reliability of the safety atmosphere questionnaire, the Cronbach's  $\alpha$  coefficient for internal consistency among the items was calculated. The results for each factor were: Management Value .886, Communication .849, Safety Practice .892. The reliability values were generally found to be satisfactory.

## Data Processing

Incomplete or unreliable data were excluded from the analysis after the collected questionnaires were screened. The data were then analyzed using SPSS 24.0 and AMOS 21.0 according to the research purpose. First, frequency analysis was conducted to understand the general characteristics of the study subjects. Second, the reliability of the questionnaires was confirmed using the internal consistency coefficient (Cronbach's  $\alpha$ ). Exploratory factor analysis was conducted to verify the construct validity of the questionnaires, selecting factor loadings of .5 or higher. Third, to identify the causal relationships and mediating effects of sensory pursuit tendency, exercise behavior, exercise intention, and safety atmosphere, structural equation modeling (SEM) analysis and bootstrapping were performed. The statistical significance level for the analysis was verified at the  $p<.05$  level.

## RESEARCH RESULTS

### Normality Analysis of Major Variables

Table 5. Normality Analysis of Measurement Variables

Variable	Sub-variable	M	SD	Skewness	Kurtosis
Sensory Pursuit Tendency	Thrill Adventure	2.85	.75	-.182	-.712
	Experience Seeking	2.83	.63	.005	-.618
	Boredom Susceptibility	.225	.71	.559	-.102
	Disinhibition	1.97	.76	.746	-.197
Exercise Behavior	Physical Attitude	5.73	.97	-.650	-.126
	Subjective Norm	5.77	.95	-.766	.071
Exercise Intention	Exercise Intention	4.25	.69	-.649	.041
Safety Atmosphere	Management Value	4.35	.71	-1.383	2.83
	Communication	4.17	.71	-.701	.98
	Safety Practice	4.16	.72	-.680	.42

<Table 5> shows the results of the normality analysis of major measurement variables. The normal distribution of the data, necessary for structural equation modeling, was confirmed through skewness and kurtosis. The skewness and kurtosis values met the criteria of less than 2 and 4, respectively [16]. Based on these criteria, the skewness and kurtosis of the variables used in this study met the normal distribution conditions required for structural equation modeling.

Table 6. Correlation Analysis Results of Sensory Pursuit Tendency, Exercise Behavior, Exercise Intention, and Safety Atmosphere

Variable	A	B	C	D	E	F	G	H	I	J
Thrill Adventure(A)	1									
Experience Seeking(B)	.639***	1								
Boredom Susceptibility(C)	.479***	.545***	1							
Disinhibition(D)	.455***	.411***	.579***	1						
Physical Attitude(E)	.323***	.301***	.173**	.077	1					
Subjective Norm(F)	.115*	.136*	-.021	-.085	.463***	1				
Exercise Intention(G)	.154**	.135*	-.091	-.122*	.522***	.709***	1			
Management Value(H)	.203**	.234***	.061	.020	.524***	.684***	.675***	1		
Communication(I)	.410***	.374***	.190***	.230***	.586***	.445***	.441***	.501***	1	
Safety Practice(J)	.362***	.393***	.205***	.211***	.596***	.412***	.432***	.441***	.765***	1

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

### Correlation Analysis of Sensory Pursuit Tendency, Exercise Behavior, Exercise Intention, and Safety Atmosphere of Marine Leisure Sports Participants

As shown in <Table 6>, the correlation analysis results showed that all correlation degrees were consistent with the relationships and directions between the measured variables and were significant at the level of significance ( $p < .05$ ). Therefore, the validity of the measurement tools for the latent variables was secured, and there was no problem with multicollinearity.

## Model Fit of Measurement Model

**Table 7. Model Fit of Measurement Model**

Variable	Sub-variable	Standard Loading	Standard Error	<i>t</i>	CR	AVE
Sensory Pursuit Tendency	Disinhibition	.606	-	-	.889	.670
	Thrill Adventure	.772	.129	9.705***		
	Experience Seeking	.796	.110	9.705***		
	Boredom Susceptibility	.692	.115	9.097***		
Exercise Behavior	Physical Attitude	.938	-	-	.912	.803
	Subjective Norm	.923	.046	22.184***		
Exercise Intention	Exercise Intention	.877	.057	18.524***	.946	.851
Safety Atmosphere	Management Value	.810	-	-	.911	.837
	Communication	.817	.067	14.793***		
	Safety Practice	.825	.049	14.934***		
Model Fit $\chi^2=119.424(df=48, p=.000), \chi^2/df=2.487,$ CFI=.967, AGFI=.901, NFI=.946, RMSEA=.070						

As shown in <Table 7>, the process of estimating the fit of the measurement model involved confirmatory factor analysis to derive the measurement model for all variables, as well as analyzing the construct reliability and average variance extracted (AVE). As a result of confirmatory factor analysis of the entire concept measurement model,  $\chi^2=119.424$ ,  $df=48$ ,  $\chi^2/df=2.487$ ,  $p=.001$  did not meet the acceptance criteria for fit. However, other fit indices met the acceptance criteria and the concept reliability (.70 or higher) and AVE (.50 or higher) indices for evaluating convergent validity were all met. Convergent validity and unidimensionality were confirmed through the construct concept.

## Verification of Model Fit

**Table 8. Evaluation Results of Model Fit**

Model	$\chi^2(p)$	$\chi^2/df$	GFI	AGFI
Fit	119.425(.000)	2.488/48	.939	.901
Model	RMSEA	CFI	TLI	SRMR
Fit	.070	.967	.954	.058

<Table 8> was analyzed using the maximum likelihood method (ML), assuming normality in confirmatory factor analysis. As shown in <Table 8>, whether the research model is suitable is judged based on several fit indices, with GFI being the main criterion. If the GFI is .9 or higher, it is considered fit. The analysis results showed a GFI value of .939, indicating fit. Additionally, the AGFI value was .901, which is satisfactory. The RMSEA value, ideally close to 0, is considered fit if it is .5 or lower. In this study, it was .070, not meeting the acceptance criteria. Additionally, the TLI and CFI values were .954 and .967, respectively, meeting the acceptance criteria. The SRMR value is considered appropriate if it is .08 or lower, and if satisfied, the model fit is judged to be more suitable [17]. Therefore, it was found that all acceptance criteria for fit were met.

## Analysis of the Causal Relationship between Sensory Pursuit Tendency, Exercise Behavior, Exercise Intention, and Safety Atmosphere of Marine Leisure Sports Participants

Table 9. Path Verification Analysis between Variables

LatentVariable→ObservedVariable	B	$\beta$	CR	Adoption
Sensory Pursuit→Exercise Behavior	.272	.581	4.321***	Adopted
Sensory Pursuit→Safety Atmosphere	.275	.351	3.845***	Adopted
Sensory Pursuit→Exercise Intention	.388	.547	5.354***	Adopted
Exercise Behavior→Safety Atmosphere	.434	.434	7.683***	Adopted
Exercise Intention→Safety Atmosphere	.280	.469	5.228***	Adopted

<Table 9> shows the regression coefficient estimates for the path coefficients and p-values between latent variables and observed variables. Setting the unknown part to 1 indicates that the relationship is fixed. As shown in <Table 9>, sensory pursuit tendency of marine leisure sports participants was found to have a direct or indirect effect on safety atmosphere through exercise behavior and exercise intention. The estimates of the measured and latent variables were statistically significant. In other words, it was confirmed that sensory pursuit tendency had a significant causal relationship with exercise behavior, exercise intention, and safety atmosphere. Therefore, the measured variables fixed as unknown were not problematic as items to observe and measure the latent variables. Thus, it was confirmed that sensory pursuit tendency had a direct causal relationship ( $p < .001$ ) with safety atmosphere. Additionally, to understand the significance of the indirect effects of the mediation model on exercise behavior and safety atmosphere, the mediating effect of sensory pursuit tendency and safety atmosphere was verified through bootstrapping. The two mediating variables, exercise behavior ( $p < .001$ ) and exercise intention ( $p < .001$ ), were found to be significant at the 95% confidence level. In other words, it was confirmed that the mediating variables had partial mediation effects.

### DISCUSSION

This study aimed to analyze the causal relationships among sensory pursuit tendency, exercise behavior, exercise intention, and safety atmosphere of marine leisure sports participants. Based on the research results, the discussion is as follows:

Marine leisure sports activities have been reported to have various physical and psychological effects through previous studies [5]. However, there are various safety risk factors in marine sports activities. Therefore, countermeasures against the risks associated with marine leisure sports activities are insufficient but being discussed. In this context, exploring variables related to exercise behavior and exercise intention as mediating factors for the safety atmosphere of marine leisure sports participation is expected to act as an exploratory process that can prevent safety accidents in marine leisure sports and establish it as a safe sport. In this study, sensory pursuit tendency of marine leisure sports participants was found to have a direct influence on safety atmosphere. These results directly support the findings of previous research, which indicated that individuals with a sensory pursuit tendency have a positive influence on safety atmosphere [12]. For marine leisure sports participants, it is important to develop and operate programs that maximize fun while considering safety to establish a mutual causal relationship between sensory pursuit tendency and safety atmosphere. Additionally, continuous efforts to strengthen the intention to engage in exercise are necessary [8]. The result that sensory pursuit tendency of marine leisure sports participants has a direct influence on exercise behavior was statistically significant. These results support the fact that individuals with a sensory pursuit tendency have a positive influence on immersion experience [18], exercise continuation [5], and the process of becoming a fanatic [19], which are important antecedents for inducing exercise behavior in marine leisure sports participants. It was confirmed that the exercise intention of marine sports participants acts as a mediating variable in the relationship between sensory pursuit tendency and safety atmosphere. These results support the theoretical verification that exercise intention mediates between exercise intention and exercise behavior in the planned exercise theory [20]. Exercise intention is determined by various psychological factors that mediate the decision



to participate in exercise and play a decisive role in the psychological decision-making process. In other words, the stronger the exercise intention, the higher the possibility of practicing exercise behavior [10]. Exercise intention is a variable that affects the perception of behavioral control, which is a sub-factor of exercise behavior. Therefore, marine leisure sports participants can perceive participation itself as a challenge worth undertaking, leading to the expression of exercise behavior. A positive perception that marine leisure sports are safe can play a sufficient role in encouraging active participation in marine leisure sports. Even if the beginning of exercise performance depends on external regulation, internalization can be achieved if social and physical environments are utilized more advantageously during the performance process [21]. This theoretical basis suggests that if marine leisure sports participants perceive safety atmosphere as favorable, participation can be expanded due to increased motivation levels. In other words, the structure of safety atmosphere, which is an evaluation of safety perception in marine leisure sports, will naturally manifest as planned behavior. This causal relationship structure can explain the reasons for participating in marine leisure sports. In other words, if the importance of safety atmosphere and the practice of safety are prioritized, it can be a sufficient reason for participation. For this reason, all related institutions and educators responsible for training marine leisure sports events should emphasize the importance of safety atmosphere. If safety atmosphere is perceived as a preceding or mediating role for participants with a sensory pursuit tendency, it will have a positive effect on exercise behavior.

Additionally, distorted perceptions that marine leisure sports are dangerous can be corrected through education and training on safety atmosphere, establishing marine leisure sports as safe. This study identified the causal relationships of mediating variables that enable safe and serious marine leisure sports to be established and continuous participation to be possible. Through this study, it was confirmed that safety atmosphere plays a role in controlling potential risk factors that can negatively affect marine leisure sports activities.

## CONCLUSION

The purpose of this study was to confirm the causal relationships among sensory pursuit tendency, exercise behavior, exercise intention, and safety atmosphere of marine leisure sports participants. The study subjects were 229 marine leisure sports participants who were surveyed. Data processing involved frequency analysis, correlation analysis, and factor analysis using SPSS 24.0, and path analysis using AMOS 21.0, leading to the following results:

First, it was found that sensory pursuit tendency of marine leisure sports participants had a direct structure that leads to safety atmosphere. Second, exercise behavior and exercise intention of marine leisure sports participants partially mediated the relationship between sensory pursuit tendency and safety atmosphere. These results logically explain the reasons for participating in marine leisure sports and derive meaningful results.

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