

The Effect of ‘Maniac’ Types on Cognitive Emotional Experiences Among Marine Sports Participants

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Background/Objectives: The purpose of this study was to examine the effect of maniac types among marine sports participants on their cognitive emotional experiences. **Methods/Statistical analysis:** To achieve this study’s purpose, a survey was conducted with 472 marine sports participants. Data was analyzed using SPSS 21.0 statistical program for frequency analysis, exploratory factor analysis, reliability test, correlation analysis, and multi-variate regression analysis. **Findings:** Findings of the analysis are as follows. First, the three types of mania (cognitive, emotional, and behavioural) had a positive relationship with their cognitive emotional experiences (self-confidence, pleasure, self-realization, and sense of immersion). Second, emotional and behavioral types had positive effects on self-confidence. Third, cognitive and behavioral types had positive effects on pleasure. Fourth, cognitive and behavioral types had positive effects on self-realization. Fifth, cognitive, emotional, and behavioral types had positive effects on the sense of immersion. **Improvements/Applications:** In conclusion, maniac types of marine sports participants have partially positive effects on cognitive emotional experiences.

Key words: *Marine Sports, Cognitive Type, Emotional Type, Behavioral Type, Cognitive Emotional Experience.*

Introduction

The Korean peninsula faces seas on three sides and comprises rivers and lakes. Such geographic conditions have stimulated interest in marine sports, and the number of enthusiast marine sports individuals are also increasing. Marine sports allow participants to express their freedom and character including patience and spiritual power to overcome extreme situations as well as stimulating adventurous spirit and challenging desires (Ham, 2012). Among those who participate continuously in marine sports, there are some maniacs who are active beyond enjoying simple leisure activity. They focus on those sports like professional players, don't spare time and money, and express their passion, love, involvement, and immersion. They are called maniacs. They represent more money and leisure time, and a higher intellectual level than before (Park, 2007). In particular, they pursue new experiences through mind and sensation, and like to actively express their personalities, styles, and images in various environments. Further, they focus on specific areas with incessant attention, and pursue information and professional knowledge, and feel joy, passion, and anger over those sports (Kim and Park, 2008). Because of this, it is necessary to examine the types of maniacs in marine sports and if marine sports will continue to engage in them.

Among participants in sports activities, those with maniac tendencies can have positive causal relations with kinetic emotion. Kinetic emotion plays a key role in perceiving pleasure in participating in and experiencing sports (Kim, 1994). If sport is a joyful and interesting activity, cognitive emotion caused by participation in sports should be positive emotional experiences derived from optimal performance. As personal emotion can vary depending on arousal level caused by sports participation, one tends to maintain optimal cognitive emotion experiences according to his or her own standard. That is, a maniac type can affect cognitive emotion.

Maniacs seek new experiences through mind and sensation and emphasize their personalities in various environments. The scale which classifies maniac participants in sports into cognitive, emotional, and behavioral types by Kim (2008), and research related to it are being conducted (Koo et al., 2010); (Yoon, 2004); (Kim and Jang, 2009). It is necessary to conduct research on the effect of maniac types in marine sports on cognitive emotional experiences. Accordingly, the purpose of this study is to understand behavioral characteristics of marine sports participants by examining the effect of maniac types on cognitive emotional experiences and prepare basic sources for continuous marine sports activities. To achieve this purpose, this study set the following research questions: First, Is there any relationship between maniac types and cognitive emotional experiences among marine sports participants? Second, Is there any relationship between maniac types and cognitive emotional experiences?

Materials and Methods

Study subjects

The subjects of this study are marine sports participants in Gyeonggi-do, Gangwon-do, Chungcheongnam-do, and Jeollanam-do. The sampling method was convenience sampling, and a survey was conducted with 500 participants. They were asked to self-complete the questionnaire, and, when they completed it, copies of the questionnaire were collected. Excluding some copies wherein respondents were not sincere in answering questions, 472 copies were used for final analysis. General characteristics of respondents are shown in Table 1.

Table 1: General characteristics of respondents

Variable	Classification	Frequency (n)	Percentage (%)
Gender	male	289	61.2
	female	183	38.8
Age	20s	109	23.1
	30s	148	31.4
	40s	128	27.1
	50s or older	87	18.4
Job	office worker	72	15.3
	self-employed	125	26.5
	student	84	17.8
	physical worker	51	10.8
	professional worker	103	21.8
	others	37	7.8
Kind of sports	yachting/motor boating	115	24.4
	water skiing/wakeboarding	105	22.2
	skin/scuba diving	96	20.3
	canoeing/kayaking	84	17.8
	wind surfing	72	15.3
Total		472	100

Survey Tool

To examine the effect of maniac types of marine sports participants on their cognitive emotional experiences, this study used a questionnaire as a survey tool. The questionnaire consisted of four questions on general characteristics of respondents, 12 questions on maniac types, and 17 questions on cognitive emotional experiences, which are dependent variables. Responses to each question were measured on a Likert scale ranging from 1 point ('Not at all'), 2 points ('No'), 3 points ('So so'), 4 points ('Yes'), to 5 points ('Definitely yes').

Questions on maniac types were originally developed by Kim (2008), and subsequently used by Jin (2010), Lee and Hwang, (2008), and Lim, (2003). These developments were revised to match the purpose of this study. Sub-variables of maniac types were classified as cognitive, emotional, and behavioral. Questions on cognitive emotional experiences were developed by Yang (Park and Shim, 2005), and reliability of the questions were secured by Lee (Yoo, 2014). They were revised to match the purpose of this study. Sub-variables of cognitive emotional experiences were pleasure, sense of immersion, self-realization, and self-confidence.

Validity and reliability

Maniac types

As shown in Table 2, Bartlett's unit matrix of maniac types is 1331.301 at significance probability of .001, and KMO index is .789, proving that selection of variables are appropriate. Based on these findings, this study conducted factor analysis on 12 questions, and three factors were extracted, explaining 55.4% of total variance. Loading of cognitive type, a sub-variable of maniac types was .654~.816, that of emotional type was .707~.769, and that of behavioral type was .570~.718, proving high reliability of internal consistency.

Table 2: Findings of exploratory factor analysis and reliability analysis of maniac types

Question	Cognitive type	Emotional type	Behavioral type	h ²
Q 1	.816	-.008	.046	.506
Q 2	.797	.170	.110	.568
Q 3	.716	-.065	.100	.589
Q 4	.654	.085	.246	.595
Q 5	.118	.769	-.021	.596
Q 6	.117	.722	.060	.676
Q 7	-.050	.712	.171	.668
Q 8	-.070	.707	.197	.527
Q 9	.230	-.003	.718	.544
Q 10	-.009	.038	.710	.539
Q 11	.169	.282	.694	.538
Q 12	.217	.356	.570	.605
Eigen value	3.404	2.035	1.212	
Variation %	28.367	16.962	10.103	
Cumulative %	28.367	45.239	55.431	
Reliability	.758	.759	.735	
Kaiser-Meyer-Olkin =.789 Bartlett's unit matrix ($\chi^2=1331.301$, df=66, $p=.000$)				

Cognitive emotional experiences

As shown in Table 3, Bartlett's unit matrix of cognitive emotional experiences is 2454.587 at significance probability of .001, and KMO index is .844, proving that selection of variables are appropriate. Based on these findings, this study conducted factor analysis on 17 questions, and four factors were extracted, explaining 57.5% of total variance. Loading of pleasure, a sub-variable of cognitive emotional experiences was .696~.760, that of sense of immersion was .578~.750, and that of self-realization was .658~.794, and that of self-confidence was .656~.752. Reliability tests showed the following results: dominance .815, activity .844, security .847, autonomy .844, and sociability .858, demonstrating high reliability in internal consistency.

Table 3: Findings of exploratory factor analysis and reliability analysis of cognitive emotional experiences

Question	Pleasure	Sense of immersion	Self-realization	Self-confidence	h ²
Q 1	.760	.067	.053	.043	.587
Q 2	.748	.067	.198	.030	.604
Q 3	.735	.055	-.009	.183	.549
Q 4	.732	.002	.062	.100	.577
Q 5	.696	.124	-.025	.200	.541
Q 6	-.049	.750	.341	-.048	.397
Q 7	.055	.742	.154	.044	.579
Q 8	.054	.688	.168	.169	.683
Q 9	.110	.655	.253	.128	.533
Q 10	.145	.578	.033	.203	.522
Q 11	.105	.149	.794	.162	.651
Q 12	.034	.234	.739	.107	.629
Q 13	.246	.141	.664	.098	.563
Q 14	-.099	.275	.658	.040	.520
Q 15	.265	-.048	.112	.752	.614
Q 16	.032	.305	.082	.727	.691
Q 17	.212	.222	.195	.656	.530
Eigen value	4.804	2.588	1.244	1.136	
Variation %	28.257	15.222	7.316	6.680	
Cumulative %	28.257	43.479	50.795	57.476	
Reliability	.764	.731	.743	.732	
Kaiser-Meyer-Olkin =.844 Bartlett's unit matrix ($\chi^2=2454.587$, $df=136$, $p=.000$)					

Data Analysis

Excluding copies of the questionnaire in which respondents were not sincere in answering questions, 427 copies in total were used in the final analysis. To test normal distribution, validity, and reliability, this study conducted a descriptive statistical analysis, factor analysis, and reliability test using SPSS 21.0. To examine relations among variables, we conducted correlation analysis, and to examine causal relations among variables, we conducted multivariate regression analysis. Significance level was $\alpha=.05$.

Results

Correlation analysis

Out of the 500 questionnaires, only 427 were used, excluding the copies where respondents were not sincere answering questions. In order to test normal distribution, validity, and reliability, this study conducted descriptive statistical analysis, exploratory factor analysis, and reliability test using SPSS 21.0. To examine the relations among variables, correlation analysis was conducted, and to examine causal relations among variables, a multivariate regression analysis was also performed. The significance level was found to be $\alpha=.05$.

Table 4: Findings of correlation analysis between maniac types and cognitive emotional experiences

Classification	A	B	C	D	E	F	G
Cognitive type	-						
Emotional type	.126**	-					
Behavioral type	.359***	.350***	-				
Self-confidence	.122**	.458***	.343***	-			
Pleasure	.505***	.155***	.450***	.194***	-		
Self-realization	.426***	.159***	.372***	.203***	.522***	-	
Sense of immersion	.228***	.547***	.373***	.386***	.376***	.345***	-
*** $p<.001$, ** $p<.01$							

The Effects of maniac types on cognitive emotional experiences among marine sports participants

The effect of maniac types on self-confidence

As shown in Table 5, maniac types had statistically significant effect on self-confidence ($F=50.780$, $p<.001$), and its explanatory power was approximately 24.7% ($R^2=.247$) of all variances. Beta values, relative effects of different maniac types on self-confidence were as follow: emotional type ($\beta=.386$, $p<.001$) and behavioral type ($\beta=.207$, $p<.001$) had positive effects on self-confidence.

Table 5: The effect of maniac types on self-confidence

	B	SE	β	t	Tolerance	VIF
Constant	1.474	.200		7.377***		
Cognitive type	-.001	.038	-.002	-.039	.872	1.147
Emotional type	.394	.044	.386	8.976***	.878	1.139
Behavioral type	.230	.051	.207	4.533***	.778	1.286
F=50.780***, R ² =.247 Adjusted R ² =.242						
***p<.001						

The effect of maniac types on pleasure

As shown in Table 6, maniac types had statistically significant effect on pleasure (F=79.169, p<.001), and its explanatory power was approximately 33.8% (R²=.338) of all variances. Beta values, relative effects of different maniac types on self-confidence were as follow: cognitive type (β =.394, p<.001) and behavioral type (β =.310, p<.001) had positive effects on pleasure.

Table 6: The effect of maniac types on pleasure

	B	SE	β	t	Tolerance	VIF
Constant	.865	.198		4.377***		
Cognitive type	.367	.038	.394	9.769***	.872	1.147
Emotional type	-.004	.043	-.003	-.084	.878	1.139
Behavioral type	.363	.050	.310	7.243***	.778	1.286
F=79.169***, R ² =.338 Adjusted R ² =.333						
***p<.001						

The effect of maniac types on self-realization

As shown in Table 7, maniac types had statistically significant effect on self-realization ($F=48.140$, $p<.001$), and its explanatory power was approximately 23.7% ($R^2=.237$) of all variances. Beta values, relative effects of different maniac types on self-confidence were as follow: cognitive type ($\beta=.336$, $p<.001$) and behavioral type ($\beta=.239$, $p<.001$) had positive effects on self-realization.

Table 7: The effect of maniac types on self-realization

	B	SE	β	t	Tolerance	VIF
Constant	.839	.239		3.506***		
Cognitive type	.352	.045	.336	7.746***	.872	1.147
Emotional type	.041	.053	.034	.777	.878	1.139
Behavioral type	.316	.061	.239	5.204***	.778	1.286
$F=48.140$ ***, $R^2=.237$ Adjusted $R^2=.232$						
*** $p<.001$						

The effect of maniac types on sense of immersion

As shown in Table 8, maniac types had statistically significant effect on sense of immersion ($F=82.313$, $p<.001$), and its explanatory power was approximately 34.6% ($R^2=.346$) of all variances. Beta values, relative effects of different maniac types on self-confidence were as follow: cognitive type ($\beta=.107$, $p<.001$), emotional type ($\beta=.476$, $p<.001$), and behavioral type ($\beta=.167$, $p<.001$) had positive effects on sense of immersion.

Table 8: The effect of maniac types on sense of immersion

	B	SE	β	t	Tolerance	VIF
Constant	.909	.193		4.721***		
Cognitive type	.097	.037	.107	2.667***	.872	1.147
Emotional type	.503	.042	.476	11.894***	.878	1.139
Behavioral type	.192	.049	.167	3.925***	.778	1.286
F=82.313***, R ² =.346 Adjusted R ² =.342						
***p<.001						

Discussion

The purpose of this study was to examine the effect of maniac types on cognitive emotional experiences among marine sports participants. Findings of the data analysis are as follow. Examination of the relationship between maniac types of marine sports participants and their cognitive emotional experiences showed that the three types of mania-cognitive, emotional, and behavioral types had a positive relationship with their cognitive emotional experiences of self-confidence, pleasure, self-realization, and sense of immersion. To examine the relationship more specifically, this study conducted a multi-variate regression analysis, and found that emotional and behavioral types had positive effects on self-confidence, and cognitive and behavioral types had positive effects on pleasure and self-realization.

And, cognitive, emotional, and behavioral types had positive effects on a sense of immersion. Such findings are supported by a study by Lee (2010) demonstrating that the more enthusiast dance club participants are, the more they experience a sense of freedom, immersion, and exercise desire. Additionally, a study on water ski mania Lee & Hwang (2008), among marine sports, proved that cognitive, emotional, and behavioral mania had positive effects on psychological well-being which is pleasure, euphoria, sense of satisfaction, and joyfulness is partly consistent with findings of this study. In a study on male and female participants in extreme sports, Lim (2003) found that behavioral and cognitive mania on such sports had effects on a recognized sense of freedom, self-consciousness, and self-realization, which partly supports findings of this study that cognitive, and behavioral types have effects on self-realization.

The reason for such findings can be assumed to be derived from evidence that maniacs of

marine sports are strongly willing to discover and realize themselves, and to satisfy their desires, sacrifice risks, and seek sensations and experiences. Marine sports participants experience self-confidence, pleasure, self-realization, and sense of immersion through sports. If such experiences are positive to them, they develop maniac tendency, but, on the contrary, if such experiences are negative, they can feel loss of goal, self-confidence, and a sense of boredom. When they overcome such negativity and limits, they can transform into maniacs. In this context, maniacs are more frequently found in marine sports containing aspects of challenge and adventure. The more they participate in marine sports, the more likely they are to challenge risky situations (Park and Shim, 2005). The higher the maniac level, the stronger the cognitive emotional experiences become (Yoo, 2014).

Maniacs have a strong desire to differentiate their tastes and choices from those of other people, and, facing other maniacs who are better than them, they feel agony and a sense of deprivation (Lim, 2003). It means that they want to be objects of admiration of other people, which affects their value, attitudes, and kinetic emotion. In this context, Yoon & Hwang (2008) found that the higher someone's maniac level is, the more he or she experiences sports attitude, and that maniac level is closely related with values, attitudes, and kinetic emotion. But, Kwak & Kim (2007) warned that high maniac level can lead to a negative emotional state, or addiction beyond pleasure and joyfulness.

When we combine those findings, we can argue that, while a high maniac level can improve the ability to control our body, society, psychology, and mental health leading to effective experiences on cognitive emotion, too high of a maniac level can cause negative reaction or non-reaction. So, we should be careful. Any maniac group is evolving into a group which actively accepts social culture with a subjective will and views. Yoon and Choi (2000) Maniacs actively overcome problems and conflicts. Marine sports participants also enjoy risky situations and become immersed in such situations, experiencing challenge and overcoming them, and they become cognitive, emotional, and behavioral maniacs. In conclusion, by examining maniac types among marine sports participants more specifically and meticulously, we can understand their cognitive emotional experiences more clearly.

Conclusion

The purpose of this study was to examine the effect of maniac types among marine sports participants on their cognitive emotional experiences. To achieve this study's purpose, a survey was conducted with 472 marine sports participants. Data was analyzed using SPSS 21.0 statistical program to conduct a frequency analysis, exploratory factor analysis, reliability test, correlation analysis, and multi-variate regression analysis. Findings of analyses are as follows. First, the three types of mania (cognitive, emotional, and behavioral types) had a positive relationship with their cognitive emotional experiences (self-



confidence, pleasure, self-realization, and sense of immersion). Second, emotional and behavioral types had positive effects on self-confidence. Third, cognitive and behavioral types had positive effects on pleasure. Fourth, cognitive and behavioral types had positive effects on self-realization. Fifth, cognitive, emotional, and behavioral types had positive effects on sense of immersion. In conclusion, maniac types of marine sports participants have partially positive effects on cognitive emotional experiences.



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