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Impacts of Support for Marine Sports Athletes on their Growth Potential

Wang-Sung Myung¹ and Chun-HoYang^{2*}

¹Department of Sport and Leisure Studies, Yonsei University, Seoul, Korea; myungws88@yonsei.ac.kr ²Department of Marine Sports, Hanseo University, Seosan, Korea; healthyang@hanseo.ac.kr

Abstract

Background/Objectives: This research tries to investigate how emotional, instrumental and social support for the marine sports athletes affects their growth potential. It also aims to provide empirical data for the reasonable management of the athletes in the sports field. Methods/Statistical Analysis: This research was conducted to investigate the effects of support of marine sports athletes on their growth potential. The targets of this research were 244 marine sports athletes in 2015 and a survey was conducted on them. For the data processing, exploratory factor analysis, reliability test, frequency analysis, correlation analysis and multiple regression analysis were conducted and the results are as follows. Findings: First, of the correlation between the support for marine sports athletes and growth potential, emotional support had a positive correlation with growth flexibility and instrumental and social support had positive correlations with possibility and growth flexibility. Second, also regarding the effect of support for on marine sports athletes, social support had a positive effect. Third, of the effect of support for the marine sports athletes on growth flexibility, instrumental support had a positive effect. On the growth potential of the marine sports athletes, instrumental support and social support showed positive effects. Application/Improvement: From these results, we can say that support for the marine sports athletes has a positive effect on the growth potential. That is, we need to strengthen the instrumental and social support for the growth potential of marine sports athletes. For further research, considering the support for marine sports athletes as the result variable, more diverse variables can be added to make a big improvement in research on marine sports athletes.

Keywords: Emotional, Growth Potential, Instrumental Supports, Marine Sports, Problem-Solving

1. Introduction

Marine sports in the broadest sense includes the competitive, hobby-type, systematical, non-systematical and leisure-type marine sports that are performed using various equipment powered or non-powered - in the sea, rivers and lakes¹. Marine sports have been given various names, such as water leisure, water sports, ocean sports, ocean leisure and ocean leisure sports². A sport can be classified according to the purpose and the goals for which it has been made and the skilled sports in which people compete against the opponents while keeping rules and regulations can be called sports-type marine sports, while the skilled sports in which people get over difficulties while challenging or overcoming nature can be called leisure-type marine sports³.

Marine sports offer the same effects of exercise that ground sports have and at the same time satisfy the desire for adventure and challenge along with nature. By using simple or more complex equipment, it such sports can enhance intellectual ability as well as physical development and foster ocean-friendly sentiments. Therefore, marine sports are a sports activity with very high potential.

For the athletes, sport itself is a physical behavior unlike that experienced by average students and they are practicing it as a way to achieve the goal of the team or their own goals⁴. Standardized training methods are making the athletes train like a machine for the goal and repetitive training is taking a toll on the athletes. So, support for the athletes is useful for their mental and physical adjustment and effective in reducing negative effects^{5,6}. Through interaction in the social system, support plays

^{*}Author for correspondence

the role of a shield and buffer that emotionally and mentally protects the individuals who are experiencing stress. Also, it means a diverse form of aid that helps individuals adjust to the crisis or changes^{7,8} argued that support is giving active aid to or agreeing with a person. ⁹Said support is giving courage, building trust and recognition.

More specifically, emotional support refers to aid in which the human factors (director, coach, colleagues and the person concerned) play a protective role and serve as a buffer to mentally and psychologically help the individuals adjust to the crisis and to changes of various forms. Instrumental support refers to aid in which the resources that are needed for the physical activities of the athletes are provided in a physical and objective form, to help the athletes perform best¹⁰. Social support refers to aid which is provided generally by others such as people who know the value, who can give care and on whom the athletes can depend¹¹. Social support can be interpreted as playing the role of preparing coping behavior to overcome the stressful situations that the athletes are facing.

Support for the members is greatly needed as it helps them overcome frustration by helping them with psychological adjustments and strengthening them to meet the spirit of the challenge and solve the problem¹². As the instructors make the athletes have confidence in their growth potential and commit themselves more to the marine sports life, the necessity of this research is becoming more apparent. Therefore, this research tries to investigate how emotional, instrumental and social support for the marine sports athletes affects their growth potential. It also aims to provide empirical data for the reasonable management of the athletes in the sports field.

2. Research Methods

2.1 Target of the Research

The target of this research is a population of marine sports athletes in 2015. Three hundred people were selected through convenience sampling. Among them, 54 questionnaires that were insufficiently answered or showed low reliability were excluded and 244 were used for the final result analysis. The general characteristics of the participants are as shown in Table 1.

2.2 Research Tool

In conducting the research, to suit the objective and target of this research, we revised and supplemented the support

Table 1. Characteristics of subject frequency (%)

Variable	Groups		Frequency	%
Sex	male		183	75.0
	female		61	25.0
Year	10 years		84	34.4
	20 years		92	27.9
	Over 30		68	37.7
	years			
Career	Less 2 years		53	21.7
	2 to 3 years		86	35.2
	3 to 4 years		68	27.9
	More 4		37	15.2
	years			
Sport item	windsurfing		25	10.2
	swimming		109	44.8
	yacht		65	26.6
	cable board		45	18.4
Total		244		100

factors that were used for the research^{13,14} before using them.

The questions were composed of a total of 15 questions including 6 for emotional support, 5 for instrumental support and 4 for social support. For the questionnaire for growth potential, to suit the objective and target of this research, we revised and supplemented the support factors that were used for the research¹⁵ before using them. The questions were composed of 5 for possibility and 3 for growth flexibility. Each question used the 5-point Likert scale ranging from "Not at all 1 point" to "Very much so 5 point".

2.3 The Validity and Reliability of the Questionnaire

To test the validity, we used the construct validity method. To test the construct validity, exploratory factor analysis was used. And for exploratory factor analysis, we used orthogonal rotation (varimax) and selected the questions for which the factor loading per factor was .40 or higher. Since this research used the multiple item scale to measure the same constructs, to verify the reliability of the research tool, we tested using Cronbach's *a*, which follows the internal consistency standard.

2.3.1 Support

The results of factor analysis of support are as shown in Table 2.

Table 2. Factor analysis of support

Item	Emotional support	Instrumental support	Social support	h^2
Item 1	.538	.263	.001	.459
Item 2	.566	.365	.189	.490
Item 3	.673	.367	083	.595
Item 4	.648	060	.002	.423
Item 5	.552	.109	.258	.483
Item 6	.724	.249	.116	.600
Item 7	.274	595	.211	.473
Item 8	216	.702	036	.541
Item 9	054	.543	.341	.492
Item 10	031	.592	.350	.474
Item 11	197.	.671	.291	.574
Item 12	.088	.076	.744	.567
Item 13	.267	.248	.655	.562
Item 14	.176	170	.730	.593
Item 15	.214	.112	.768	.648
eigenvalue	4.965	1.630	1.179	
variance%	33.102	10.866	7.857	
cumu%	33.102	43.968	51.825	
reliability	.707	.707	.696	

Bartlett test of sphericity ($\chi^2 = 770.272$, df = 105, p = .000). Kaiser-Meyer-Olkin measure of sampling adequacy = .859.

Table 2 shows that for support, three factors for which the eigenvalue is 1.0 or higher were selected. Support was classified into three factors - emotional support, instrumental support and social support. The total explanatory power of this was about 51.8% in the total variable. The results of examining the reliability of the sub-factors of support are emotional support .707, instrumental support .707 and social support .696. The reliability of the questionnaire was higher than the 0.6 suggested 16, which is a sufficiently good reliability.

The KMO measure of sampling adequacy was .859 and sig (p) was .000, which showed that the factor analysis was adequate. Chi-squared (χ^2) was 770.272, and degrees of freedom (df) was 150.

2.3.2 Growth potential

The results of factor analysis of growth potential are as shown in Table 3.

Table 3 shows that for growth potential, 2 factors for which the eigenvalue is 1.0 or higher were selected. Growth potential was classified into 2 factors such as possibility and growth flexibility. The total explanatory power of this was about 49.2% in the total variable. The results of examining the reliability of the sub-factors of growth potential are possibility .770 and growth flexibility

.731. The reliability of the questionnaire was higher than the 0.6 suggested¹⁷, which is a sufficiently good reliability.

The KMO measure of sampling adequacy was .791 and sig (p) was .000, which showed that the factor analysis was adequate. Chi-squared (χ^2) was 237.617 and degrees of freedom (df) was 28.

2.4. Process of Analysis and Data Processing

For the study, 3 surveyors, who were educated on the questionnaires, which were created after a literature review and data examination, visited the targets of the research and did sampling. After explaining the matters to be attended to, they gave out the questionnaires and had the subjects reply through a self-administered method. Completed questionnaires were instantly collected. Among the questionnaires completed, those with insufficient data were excluded and the analyzable data were computerized and put through data processing. For the data, exploratory factor analysis, reliability analysis (Cronbach's α), descriptive statistical analysis, correlation analysis and multiple regression analysis were used with the SPSS 18.0 statistics program. The level of significance was p=.05.

Table 3. Factor analysis of growth potential

Item	Possibility	Growth flexibility	h2
Item 1	.709	209	.547
Item 2	.729	235	.586
Item 3	.683	.203	.508
Item 4	.602	278	.440
Item 5	.695	.179	.516
Item 6	.004	.730	.532
Item 7	071	.734	.544
Item 8	.116	.495	.459
eigenvalue	2.782	1.150	
variance%	34.776	14.377	
cumu%	34.776	49.154	
reliability	.770	.731	

Bartlett test of sphericity ($\chi^2 = 237.617$, df = 28, p = .000). Kaiser-Meyer-Olkin measure of sampling adequacy = .791.

Table 4. Correlation of support and growth potential

Variable	Emotional support	Instrumental support	Social support	Possibility	Growth flexibility
A	-				
В	.561***	-			
С	.629***	.573***	-		
D	.145	.202**	.260***	-	
E	.368***	.393***	.336***	.524***	-

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

3. Research Results

3.1 Results of Analyzing the Correlations

Correlation analysis has been conducted to examine the relationship between the support for the athletes and growth potential and the results are as shown in Table 4.

Emotional support had a positive correlation with the growth potential (.368). Instrumental support and social report had positive correlations with possibility (.202 and .393) and growth flexibility (.260 and .336), respectively.

3.2 The Effects of Support for Marine Sports Athletes on the Growth Potential

3.2.1 The Effects of Support on the Possibility

Table 5 shows the result of multiple regression analysis to examine the effect of the support for marine sports athletes on the possibility. Support had a statistically significant effect on the possibility. The total explanatory power of this was about 7.4% ($R^2 = .074$) in the total

variable. The Beta value, the relative effect of support on possibility, showed that social support had an effect (β = .245, p < .05).

3.2.2 The Effects of Support on the Growth Flexibility

Table 6 shows the result of multiple regression analysis to examine the effect of the support for marine sports athletes on growth flexibility. Support had a statistically significant effect on growth flexibility. The total explanatory power of this was about 19.0% ($R^2 = .190$) in the total variable. The Beta value, the relative effect of support on growth flexibility, showed that instrumental support had an effect ($\beta = .245$, p<.01).

4. Discussions

This study investigated the effects of support for marine sports athletes on growth potential and the results are as follows.

Table 5. The effect of support on potential

	В	SE	β	t	Tolerance
Constant	2.393	.282		8.494***	
Emotional support	049	.076	064	646	1.837
Instrumental support	.092	.090	.097	1.031	1.651
Social support	.207	.085	.245	2.441*	1.874
		R ² =.074,F=	=4.592, <i>p</i> =.01		

*p<.05, ***p<.001

Table 6. The effect of support on growth flexibility

	В	SE	β	t	Tolerance
Constant	1.155	.385		3.002**	
Emotional support	.199	.104	.178	1.919	1.837
Instrumental support	.341	.122	.245	2.782**	1.651
Social support	.102	.116	.083	.881	1.874
		R ² =.190,F=13.4	137,p=.001		

p<.01, *p<.001

First, of the correlation between the support for marine sports athletes and growth potential, emotional support had a positive correlation with growth flexibility and instrumental and social support had a positive correlation with possibility and growth flexibility.

The emotional support that instructors can provide is thinking deeply of the goal and the value of the athletes or giving a lot of praise when athletes do a good job.

Also, having smooth communication with the athletes and respecting the athletes' opinions are included in emotional support. When colleagues and parents as well as the instructors help the athletes to adjust to the crisis, athletes can have a positive relationship with growth flexibility, an ability through which athletes can experience thoughts and feelings as they are at the moment and change their behaviors to achieve their goal.

This research showed that among the supports for the marine sports athletes, social support had a positive effect on possibility and instrumental support had a positive effect on growth flexibility. According, growth flexibility is staying in the present moment, experiencing feelings and thoughts that we don't want and continuing to do our behavior to achieve our goal or value even though we experience events that frustrate our motivation.

To summarize, for the marine sports athletes, emotional support of the directors, coaches and colleagues can be the driving force to keep them practicing to achieve the goal. Therefore, emotional support has the role of guiding

the athletes not to drop out in the middle. Instrumental support means that we provide the physical resources that are needed for the physical activities of the athletes in an objective form.

Analyzed equipment in his research on the participation inconvenience factor of the marine sports. According to him, marine sports have limitations due to the limitations of place and equipment. Therefore, instrumental support such as proper equipment is needed. If that is possible then athletes can commit themselves more to the sports and enhance their athletic performance.

Growth potential is shown when athletes have hopes that they will be better in the future and have that attitude to achieve their goal. Athletes with great growth potential will have more positive thoughts through high satisfaction. The instrumental and social support that are perceived by the marine sports athletes make them perform tasks and train efficiently. Therefore, it is in line with the research, who claims that the growth potential of athletes contributes to enhancing athletic performance. For the marine sports athletes to strive for their lives as athletes, instrumental and social supports are needed.

5. Conclusion and Suggestions

This research was conducted to investigate the effects of support of marine sports athletes on their growth potential. The targets of this research were 244 marine sports athletes in 2015 and a survey was conducted on them. For the data processing, exploratory factor analysis, reliability test, frequency analysis, correlation analysis and multiple regression analysis were conducted and the results are as follows.

First, of the correlation between the support for marine sports athletes and growth potential, emotional support had a positive correlation with growth flexibility and instrumental and social support had positive correlations with possibility and growth flexibility. Second, also regarding the effect of support for on marine sports athletes, social support had a positive effect. Third, of the effect of support for the marine sports athletes on growth flexibility, instrumental support had a positive effect.

On the growth potential of the marine sports athletes, instrumental support and social support showed positive effects. From these results, we can say that support for the marine sports athletes has a positive effect on the growth potential. That is, we need to strengthen the instrumental and social support for the growth potential of marine sports athletes. For further research, considering the support for marine sports athletes as the result variable, more diverse variables can be added to make a big improvement in research on marine sports athlete.

6. References

- 1. Sam-Up J. The analysis of natural environmental factors for the popularization of marine sports. Korea Sport Research. 2004; 15(6):949-69.
- 2. Yum Y, Lee-Kyung L. The influence of adolescents actives of marine sports on the development of their sociality. [Unpublished Master's Dissertation]. Chungang University; 2008.
- 3. Ji Sam UP. The study of high school student's activities of marine sports on the development of their sociality. The Korean Society Fishries and Sciences Education. 2006; 18(3):329-40.

- 4. Jo HJ. An analysis of stress factor and stress coping method in squash players. [Unpublished Master's Dissertation]. Changwon National University; 2006.
- 5. Kim SO. A study of self-efficacy, social support, health promoting life style profile for middle aged men. Bulletin of Dongnam Health College. 2000; 18(2):177-86.
- 6. Kim JY. Effect of the leisure activities and the social supports on depression: Focusing on middle ages and old ages. [Unpublished Master's Dissertation]. Catholic University of Daegu; 2008.
- 7. Cohen S, Wills TA. Stress, social support and the buffering hypothesis. Psychological Bulletin. 1985 Sep; 98(2):310-57.
- 8. Kim GJ. Effective life coaching study: Social Support Center. [Unpublished Master's Dissertation]. Sookmyung Women's University; 2008.
- 9. Kaplan HB. Psychosocial stress: Trends in the theory and research. NY: Academic Press; 1984. p. 195-264.
- 10. Cobb S. Social support as a moderator of life stress. Psychosomatic Medicine. 1976 Sep-Oct; 38(5):300-14.
- 11. Kaplan BH, Cassel JC, Gore S. Social support and medical care. Psychosomatic Medicine. 1977; 15(5):47-58.
- 12. Park JK. Effects of emotional and instrumental support for Taekwondo player on growth potential recognition and immersion in routine exercise. Korean Alliance of Martial Arts. 2013; 15(1):69-78.
- 13. Kwon DI. Influence of Taekwondo player's supportive recognition on athletic performance. [Unpublished Master's Dissertation]. Dankook University; 2008.
- 14. Yang SS. The effects of the social support within the Taekwondo team in secondary schools on the burnout of the players. [Unpublished Master's Dissertation]. Dankook University; 2010.
- 15. Cho TS, Ha S. The influence of hockey instructor's charismatic leadership on the team result and flexible growth. Korean Journal of Sport Management. 2005; 10(4):109-20.
- 16. Hair JF, Anderson RE, Tatham RL, Black W. Multivariate data analysis. Englewood Cliffs. NJ: Prentice Hall; 2006.
- 17. Han Kwang M. A research on university students perceptions on ocean sports: A survey in Gwangju and Chonnam Province. [Unpublished Master's Dissertation]. Chonnam University; 2006.