

Publisher: J-INSTITUTE
ISSN: 2435-0702

Website: www.j-institute.jp/kinesiology/
Editor: kinesiology@j-institute.jp

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E-mail: parkjs@kmu.ac.kr

dx.doi.org/10.22471/kinesiology.2020.5.2.12

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The Effect of Sports Motivation of Middle School SOCCER Players on the Sports Goal Orientation

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Abstract

Purpose: The study was conducted to verify how sports motivations affect sports goal orientations for middle school soccer players. In order to achieve the goal of this study, a survey was conducted on 338 middle school soccer players to analyze the collected data. The conclusions of the analysis are as follows.

Method: In this study, the data collected through the questionnaire was analyzed using SPSS 26.0. Frequency analysis was conducted to identify the demographic and statistical characteristics of the study participants, and the reliability coefficient (Cronbach's α) was calculated to determine the stability, consistency, and predictability of the measurement tools for each item. One-way ANOVA was conducted to find out how the demographic variables of middle school soccer players differed in sports motivation and sports goal orientation. In addition, multiple regression analysis was conducted to verify how sports motivations of middle school soccer players affect their sports goal orientations. The significance level of all the statistics was set at .05.

Result: First, the analysis of the differences in sports motivation according to the school year of middle school soccer players showed statistically significant differences in self-control and amotivation factors.

Second, an analysis of the differences in sports motivation according to the athletic career of middle school soccer players showed statistically significant differences in intrinsic and extrinsic motivation and amotivation factors. Third, an analysis of the effect of middle school soccer players' sports motivation on sports goal orientation showed that self-control was a factor in task orientation and that there were statistically significant differences in intrinsic and extrinsic motivations on the ego orientation.

Suggestions: Suggestions for future studies based on the results of this study include the following. This study was conducted only for middle school students, so subsequent studies would be meaningful if they were conducted on high school and college students as well. And a study on the differences between teenagers, college students, and regular soccer players will also be meaningful. It would also be meaningful if there were studies that identified not only sports motivation and sports goal orientation but also relationships with various variables and qualitative studies that could find in-depth causes.

[Keyword] Golden Age, Soccer Players, Sports Motivation, Sports Achievement-Goal, Middle School

1. Introduction

The period of middle school students growing up as soccer players can be seen as a time when skills are acquired quickly and effectively [1]. The Korea Football Association (KFA) considers the period of middle school soccer players to be so important that it calls it the "Golden Age" [2]. Middle school soccer players in the Golden Age are yet physically and mentally immature before they reach adulthood, and they acquire a sense of their identity experiencing emotional anxiety and confusion [3]. In particular, middle school students in adoles-

cence may be more immature than high school students physically and mentally, and it is also a time when instability is expressed through rebelliousness, narcissistic aggression, and fictional fantasies[4]. For middle school soccer players at this time, it is important to grow in harmony physically, mentally, and socially.

Motivations are generally classified as intrinsic, extrinsic, and amotivational. Intrinsic motivation refers to voluntary participation[5], and participation affected by extrinsic factors and constraints such as compensation is referred to as extrinsic motivation[6]. Motivational factors related to the start or continuation of middle school soccer players' athletic activities are likely to be linked to resilience to overcome adversity and stress in school life, training, and competitive situations. Motivational factors are also associated with task orientation and ego orientation of achievement-goal orientations in the achievement context such as in sports[7].

The achievement-goal orientation explains the differences in criteria considered in determining one's ability as a criterion for evaluating success and failure, and in sports situations, it is divided into the task and ego orientated achievement-goal based on the perception of ability to demonstrate one's ability and the subjective interpretation and judgment criteria of the individual. The task orientation is to evaluate one's ability by comparing oneself to a previous performance by focusing on proficiency and learning about the task, and the ego orientation is to evaluate one's ability by comparing oneself to others[8][9].

There are various achievement goals in the sports situation, the most important of which is considered to be the present state of competence in the sports situation[10]. Individuals oriented toward the task goal of the goal-oriented theory are showing adaptive patterns regardless of their high and low ability. However, individuals who are oriented toward self-target are more likely to show inappropriate performance patterns when they become less competent.

Looking at the relationship between goal orientation and emotion, it is believed that task-oriented goal orientation is closely related to positive emotions such as pleasure and fun[11], while self-oriented goal orientation is related to negative emotions such as depression or anxiety[11]. Motivation has an important influence on positive emotions such as pleasure and fun.

This study seeks to identify differences in sports motivation and sports goal orientation of middle school soccer players and to find out how motivation affects their goal orientation. The results of this study are meant to be provided to the coaches and players as a basis for improving their performance.

2. Research Method

2.1. Research participants

Participants in the study were middle school soccer players in K area, and a survey was conducted on them. Prior to conducting the survey, the coaches and players of each team were fully explained the purpose of the research and consented to the collection and utilization of personal information before conducting the survey. The general characteristics of the research participants are as shown in <Table 1>.

Table 1. The general characteristics of the research participants.

Description	Description	Frequency	Percentage (%)
School year	First year	115	34.0
	Second year	120	35.5
	Third year	103	30.5

	1 year to less than 2 years	27	8.0
	2 years to less than 3 years	78	23.1
Athletic career	3 years to less than 4 years	47	13.9
	4 years to less than 5 years	174	51.5
	Longer than 5 years	12	3.5
	Total	338	100.0

2.2. Data collection

2.2.1. Measuring sports motivation

To measure the motivational factors of middle school soccer players, a questionnaire for intrinsic motivation developed by McAuley, Duncan, and Tammen[12] was transformed to suit the sports situation to measure the condition of the person who was intrinsically motivated in sports situation, and a scale was used to measure the four factors of intrinsic motivation, self-control, extrinsic motivation, and amotivation. The reliability coefficient(Cronbach' α) for each subfactor was .73 for intrinsic motivation, .79 for self-control, .81 for extrinsic motivation, and .82 for amotivation.

2.2.2. Measuring sports goal orientation(TEOSQ)

In order to measure the goal orientation of middle school soccer players, a questionnaire for sports goal orientation by Duda(TEOSQ)[13] was translated and used, measuring the goal orientation, or subjective definition of success, held by sports participants. The scale could measure the two factors of task orientation and ego orientation, consisting of a total of 13 questions. The reliability coefficient(Cronbach' α) of each subfactor was .83 for task orientation and .79 for ego orientation.

2.3. Data analysis

In this study, the data collected through the questionnaire was analyzed using SPSS 26.0. Frequency analysis was conducted to identify the demographic and statistical characteristics of the study participants, and the reliability coefficient(Cronbach' α) was calculated to determine the stability, consistency, and predictability of the measurement tools for each item. One-way ANOVA was conducted to find out how the demographic variables of middle school soccer players differed in sports motivation and sports goal orientation. In addition, multiple regression analysis was conducted to verify how sports motivations of middle school soccer players affect their sports goal orientations. The significance level of all the statistics was set at .05.

3. Result and Discussion

3.1. The differences in the sports motivation and goal orientation of middle school soccer players according to their school year

The results of analyzing the differences in sports motivation by the school year of middle school soccer players are as shown in <Table 2>. There were statistically significant differences in self-control($F=6.801$, $p=.001$) and amotivation factors($F=3.482$, $p=.032$) among the sports motivation factors of middle school soccer players. In contrast, the intrinsic motivation($F=.271$, $p=.763$) and extrinsic motivation($F=2.293$, $p=.103$) showed no statistically significant differences. These findings support a prior study that showed that the stronger the self-control the higher the academic performance and motivation[14][15] and this study that

showed the higher the school year, the stronger the self-control and the lower the school year the more the a motivation.

Table 2. The differences in sports motivation by the school year.

Area	School year	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	<i>post-hoc</i>
Intrinsic motivation	First year	115	3.5870	.62657	.271	.763	a, b<c
	Second year	120	3.6271	.79256			
	Third year	103	3.6602	.77874			
Self-control	First year	115	4.2065	.50138	6.801**	.001	
	Second year	120	4.2813	.68719			
	Third year	103	4.4830	.47905			
Extrinsic motivation	First year	115	2.4696	1.00936	2.293	.103	
	Second year	120	2.7208	1.01986			
	Third year	103	2.7257	1.06844			
Amotivation	First year	115	1.6696	.78608	3.482*	.032	a>b, c
	Second year	120	1.4625	.49008			
	Third year	103	1.6383	.63567			

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

The results of an analysis of the differences in sports goal orientation of middle school soccer players according to their school year are as shown in <Table 3>. There were statistically significant differences in task orientation(*F*=3.567, *p*=.029) and ego orientation(*F*=6.762, *p*=.001) for the sports goal orientations of middle school soccer players. Prior studies [16][17] supports the results of this study, saying that the higher the task-orientation, the better the skill acquisition and relationship with the team members and more efforts without interruption even if they experienced difficulties.

Kang[18] reports that the results of a study on the relationship between middle and high school soccer players' achievement goals and their immersion in sports show that middle and high school soccer players have significantly higher achievement goals than high school students, while middle and high school soccer players have significantly higher achievement goals than midfielders.

Table 3. The differences in sports goal orientation by the school year.

Area	School year	<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	<i>post-hoc</i>
Task orientation efforts	First year	115	4.2050	.53691	3.567*	.029	a, b<c
	Second year	120	4.2393	.51829			
	Third year	103	4.3870	.53663			
Ego orientation display	First year	115	3.4957	.82995	6.762**	.001	a>b, b<c
	Second year	120	3.2514	.74910			
	Third year	103	3.6505	.88639			

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

3.2. The differences in the sports motivation and goal orientation of middle school soccer players according to their athletic career

The results of analyzing the differences in sports motivation by the athletic career of middle school soccer players are as shown in <Table 4>. There were statistically significant differences in intrinsic motivation(*F*=5.180, *p*=.000), extrinsic motivation(*F*=3.033, *p*=.018), and

amotivation($F=4.178$, $p=.003$). These results are in part consistent with previous research results[19][20], in which athletes showed higher levels of a motivation than those participating in sports for all, supporting the results of this study.

Table 4. The differences in sports motivation by the athletic career.

Area	The athletic career	n	M	SD	F	p	post-hoc
Intrinsic motivation	1 year to less than 2 years	27	3.4352	.38351	5.180***	.000	a<b, d, a, d, e<c
	2 years to less than 3 years	78	3.7724	.65736			
	3 years to less than 4 years	47	3.9574	.77375			
	4 years to less than 5 years	174	3.5086	.77809			
	Longer than 5 years	12	3.4375	.38620			
Self-control	1 year to less than 2 years	27	4.1204	.58165	1.446	.218	
	2 years to less than 3 years	78	4.2660	.46525			
	3 years to less than 4 years	47	4.2926	.62840			
	4 years to less than 5 years	174	4.3693	.61161			
	Longer than 5 years	12	4.4375	.46619			
Extrinsic motivation	1 year to less than 2 years	27	3.1944	.54302	3.033*	.018	a>b, c, d,
	2 years to less than 3 years	78	2.4712	1.01848			
	3 years to less than 4 years	47	2.4628	1.14206			
	4 years to less than 5 years	174	2.6552	1.05296			
	Longer than 5 years	12	2.8750	.91391			
Amotivation	1 year to less than 2 years	27	1.9537	.68303	4.178**	.003	a>b, c, d, b, c,<d
	2 years to less than 3 years	78	1.4519	.48022			
	3 years to less than 4 years	47	1.4149	.48700			
	4 years to less than 5 years	174	1.6336	.72309			
	Longer than 5 years	12	1.6250	.67840			

Note: * $p<.05$, ** $p<.01$, *** $p<.001$.

The results of an analysis of the differences in sports goal orientation according to the athletic career of middle school soccer players are as shown in <Table 5>. The result showed a statistically significant difference in the factors of the ego orientation of middle school soccer players($F=5.282$, $p=.000$). On the other hand, the task orientation showed no statistically significant difference($F=.285$, $p=.888$). These results indicate that athletes tend to participate in sports due to extrinsic motivational factors and there are differences in the ego orientation by their athletic career as also reported by a prior study[21][22][23].

Duda & Nicholls[24] reports that research on goal orientation and sincerity among high school and non-high school players found that task-related goal-oriented students put the cause of success in their efforts, while self-contained goal-oriented students put high-skill ownership as the reason for their success.

Table 5. The differences in sports goal orientation by the athletic career.

Area	The athletic career	n	M	SD	F	p	post-hoc
Task orientation efforts	1 year to less than 2 years	27	4.1799	.59113	.285	.888	
	2 years to less than 3 years	78	4.2802	.56276			
	3 years to less than 4 years	47	4.2827	.53824			
	4 years to less than 5 years	174	4.2750	.51543			
	Longer than 5 years	12	4.3571	.53278			
Ego	1 year to less than 2 years	27	3.9259	.96336	5.282***	.000	a>b, d,

orientation display	2 years to less than 3 years	78	3.3056	.74604	c>b, d, b, d<e
	3 years to less than 4 years	47	3.6879	.77055	
	4 years to less than 5 years	174	3.3592	.82596	
	Longer than 5 years	12	3.8750	.86493	

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

3.3. The effect of sports motivation of middle school soccer players on the sports objectives

The results of multiple regression analysis to verify whether the sports motivation of middle school soccer players affect their sports goal orientation are as shown in <Table 6>.

First, a regression analysis of the effect of sports motivation of middle school soccer players on sports goal orientation showed statistically significant differences in the self-control of the task orientation, indicating positive effects. Also, the F value of the regression model is 6.347 at p<.01 with R²=.071, showing 7.1% of the explanatory power of the total variable.

Second, a regression analysis of the effect of sports motivation of middle school soccer players on sports goal orientation showed statistically significant differences in the intrinsic motivation of the task orientation, indicating positive effects. Also, the F value of the regression model is 8.993 at p<.01 with R²=.097, showing 9.7% of the explanatory power of the total variable. This means that the higher the self-control, the higher the task orientation, and the stronger the intrinsic motivation, the lower the ego orientation.

These results are consistent with the preceding studies [25][26][27][28][29] that reported that the goal orientation had a positive effect on the intrinsic motivation, supporting the results of this study.

In addition, the findings of Han [30], Lim [31] and Ahn [32] partially support the study, as both the sub-variables of achievement goals and internal motivations report statistically significant effects.

Table 6. The effect of sports motivation on the sports goal orientation.

	Task orientation			Ego orientation		
	B	Beta	t	B	Beta	t
(Constant)	3.339		13.336	2.895		7.515
Intrinsic motivation	.011	.015	.264	-.147	-.130	-2.301*
Self-control	.195	.211	3.690***	.082	.057	1.002
Extrinsic motivation	.052	.101	1.633	.191	.237	3.895***
Amotivation	-.054	-.066	-1.124	.150	.117	2.013
	R ² =.071, F=6.347***			R ² =.097, F=8.993***		

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

4. Conclusion and Suggestions

The study was conducted to verify how sports motivations affect sports goal orientations for middle school soccer players. In order to achieve the goal of this study, a survey was conducted on 338 middle school soccer players to analyze the collected data. The conclu-

sions of the analysis are as follows.

First, the analysis of the differences in sports motivation according to the school year of middle school soccer players showed statistically significant differences in self-control and amotivation factors.

Second, an analysis of the differences in sports motivation according to the athletic career of middle school soccer players showed statistically significant differences in intrinsic and extrinsic motivation and amotivation factors.

Third, an analysis of the effect of middle school soccer players' sports motivation on sports goal orientation showed that self-control was a factor in task orientation and that there were statistically significant differences in intrinsic and extrinsic motivations on the ego orientation.

Suggestions for future studies based on the results of this study include the following. This study was conducted only for middle school students, so subsequent studies would be meaningful if they were conducted on high school and college students as well. And a study on the differences between teenagers, college students, and regular soccer players will also be meaningful. It would also be meaningful if there were studies that identified not only sports motivation and sports goal orientation but also relationships with various variables and qualitative studies that could find in-depth causes.

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6. Appendix

6.1. Authors contribution

	Initial name	Contribution
Lead Author	SJL	-Set of concepts <input checked="" type="checkbox"/> -Design <input checked="" type="checkbox"/> -Getting results <input checked="" type="checkbox"/> -Analysis <input checked="" type="checkbox"/> -Make a significant contribution to collection <input checked="" type="checkbox"/>
Corresponding Author*	JPS	-Final approval of the paper <input checked="" type="checkbox"/> -Corresponding <input checked="" type="checkbox"/> -Play a decisive role in modification <input checked="" type="checkbox"/> -Significant contributions to concepts, designs, practices, analysis and interpretation of data <input checked="" type="checkbox"/>
Co-Author	JSK	-Participants in Drafting and Revising Papers <input checked="" type="checkbox"/> -Someone who can explain all aspects of the paper <input checked="" type="checkbox"/>