



The Effects of High School Basketball Player's Sports Participation Motivation on Achievement Goal Orientation and Achievement Behaviors

*Young-Su Jung¹, *Hyunwoo Kang², *Seyong Jang³*

1. College of Arts and Physical Education, Dong-A University, Busan, Korea

2. College of Sport Science, Sungkyunkwan University, Suwon, Korea

3. Department of Taekwondo, College of Arts and Physical Education, Gachon University, Seongnam, Korea

*Corresponding Author: Email: dusdn6290@naver.com, naganolala@gachon.ac.kr

(Received 05 Dec 2020; accepted 19 Feb 2021)

Abstract

Background: Although the motivation to set goals and taking steps to achieve them is essential for athletes wishing to progress to a professional level, motives for participating in sports vary depending on personal and physical characteristics. We aimed to investigate the effect of motivation to participate in sports on achievement goal orientation and achievement behavior in high-school basketball players.

Methods: The study included 256 female high-school basketball players from Busan, Korea, and was conducted between September and October 2020. The questionnaires obtained data regarding motivation to participate in sports, achievement goal orientation, and achievement behavior. Structural equation modeling was used for data analysis.

Results: Motivation to participate in sports exhibited a significant positive correlation with achievement goal orientation ($P < 0.05$). Specifically, motivation related to the development of technical skills and achieving a sense of fulfillment, amusement, and health exerted a positive effect on task-goal orientation. Greater motivation related to technical skill development, attaining a sense of accomplishment, and improving health was associated with greater self-goal orientation. Additionally, achievement goal orientation exerted a significant positive effect on achievement behavior ($P < 0.05$).

Conclusion: Given the relative unpopularity of basketball in Korea, it is crucial for players to develop high achievement goal orientation and engage in real efforts to translate such motivation into action. This goal- and achievement-oriented attitude should precede motivation for participating in basketball.

Keywords: Achievement behavior; High-school athlete; Motivation; Sports

Introduction

Basketball is one of the most popular indoor sports in Korea. The Women's Korean Basketball League was launched in 1998 to offer young athletes the opportunity to play in a professional league; high-school students in Korea work hard

to demonstrate their skills in competitive situations (1). Although the motivation to set goals and take steps to achieve them is essential for athletes, motives for participating in sports vary depending on personal and physical characteristics. In the



Copyright © 2021 Jung et al. Published by Tehran University of Medical Sciences.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International license

(<https://creativecommons.org/licenses/by-nc/4.0/>). Non-commercial uses of the work are permitted, provided the original work is properly cited.

context of basketball, motivation to achieve athletic goals can be defined as an intentional effort to transform into an even better player by correcting deficiencies or developing skills through deliberate effort (2-4).

Motivation and achievement theory has been widely applied in the context of various fields, including educational settings and sports such as basketball (5, 6). Based on this theory, Lee (7) classified sport-related motivation in terms of intrinsic motivation, extrinsic motivation, and amotivation. Thus, motives for participating in sports can be divided into internal, external, and amotivated factors. For example, developing an interest in sports despite the lack of a reward represents an inner motive, while pursuing a sport based on an external reward or incentive rather than interest in the activity itself represents an external motive. Amotivation is characterized by little interest in extrinsic rewards and no intrinsic willingness to continue their careers.

The term “athlete” is typically used to refer to an individual who has no reason to continue exercising and no particular interest in compensation (8-10). Athletes exhibit a high degree of achievement motivation in the context of their respective sports, and achieving goals is the standard by which players evaluate success and failure in achievement situations. Achievement motivation in sports can be categorized as either goal-oriented or self-oriented (11,12), depending on the player’s propensity to achieve goals (13-16). Self-targeted athletes define success and failure in the terms of wins and losses that are indicated objectively. On the other hand, players with task-goal orientation define success and failure in the terms of exercise and self-improvement and tend to feel competent when skills

are improved or effort has been made.

Therefore, in the context of basketball, achievement behavior can be defined as engaging in actions to maintain consistency as a player and progress toward goals (17). As previously mentioned, motivation for participating in sports is an important prerequisite for athletes to achieve their goals and experience fulfillment. Among the various sports in Korea, basketball has a relatively low level of public interest compared to popular sports such as soccer, baseball, and golf, and is therefore associated with low-level rewards in terms of achievement and success. Therefore, achievement goal orientation and the resulting achievement actions are particularly important for Korean basketball players when compared to other athletes (18). In the present study, we investigated the structural relationships among motivation for participating in sports, achievement goal orientation, and achievement behavior in a sample of female high-school basketball players in Korea.

Methods

Participants

Our team distributed 310 questionnaires to female high-school basketball players in Busan, Korea, in September and October 2020. Valid data from 256 questionnaires were utilized for the final analysis after excluding those with missing responses. After receiving a full explanation of the study’s purpose, players completed the questionnaire either in person or via e-mail. The demographic characteristics of the participants are shown in Table 1.

Table 1: Participant characteristics

<i>Variable</i>	<i>Items</i>	<i>n (%)</i>
High school grade	1st year	88 (34.4)
	2nd year	85 (33.2)
	3rd year	83 (32.4)
Athletic career	Less than 4 years	13 (5.1)
	4-5 years	67 (26.2)
	6-8 years	94 (36.7)
	More than 8 years	62 (32.0)
Total		256 (100.0)

All study participants and their parents provided informed consent and agreed to participate in the study, and the study design was approved by Kyung Sung University in Korea.

Research model and hypotheses

We aimed to verify the structural relationships among motivation to participate in basketball, achievement orientation, and achievement behavior in female high-school basketball players in Korea. Based on a model (19), several studies have attempted to verify the relationship between achievement goal orientation and achievement behavior in sports situations. The tendency to achieve goals in sports can affect actual performance behavior, especially among individuals who engage in sports as a hobby. Thus, this relationship is considered an important variable that influences the level of effort and sustained behavior in relation to the desire to achieve (13, 20). Motivation for participating in sports exhibits a significant positive relationship with performance behavior (21, 22). In their study, Choi and Chun (23) reported a significant positive correlation between inner motivation for sports participation and achievement goal orientation. Motivation exhibits a positive correlation with achievement goal orientation in athletes (24). Orlick and Partington (25) further revealed a significant positive relationship between a player's achievement goal orientation (e.g., commitment to success and effective training based on goal setting, psychological preparation for the competition, and meticulous competition preparation strategies) and performance behavior. Based on these findings, we predicted that there would be relationships among motivation to participate in sports, achievement goal orientation, and achievement behavior in young basketball players. Specifically, we suspected that achievement goal orientation would exert a positive effect on the relationship between motivation for participation and achievement behavior, and the following hypotheses were investigated.

Hypothesis 1. Motivation to participate in sports exerts a positive effect on achievement goal orientation.

Hypothesis 1-1. Motivation for developing technical skills and achieving a sense of accomplishment will exert a positive effect on achievement goal orientation.

Hypothesis 1-2. Motivation for amusement will exert a positive effect on achievement goal orientation.

Hypothesis 1-3. Motivation for health will exert a positive effect on achievement goal orientation.

Hypothesis 1-4. Motivation to showcase one's skills will exert a positive effect on achievement goal orientation.

Hypothesis 1-5. Motivation for amotivation will exert a positive effect on achievement goal orientation.

Hypothesis 2. Achievement goal orientation will exert a positive effect on achievement behaviors.

Hypothesis 2-1. Task-goal orientation will exert a positive effect on achievement behavior.

Hypothesis 2-2. Self-goal orientation will exert a positive effect on achievement behavior.

Hypothesis 3. Motivation to participate in sports will exert a positive effect on achievement behavior.

Hypothesis 3-1. Motivation for developing technical skills and achieving a sense of accomplishment will exert a positive effect on achievement behavior.

Hypothesis 3-2. Motivation for amusement will exert a positive effect on achievement behavior.

Hypothesis 3-3. Motivation for health will exert a positive effect on achievement behavior.

Hypothesis 3-4. Motivation to showcase one's skills will exert a positive effect on achievement behavior.

Hypothesis 3-5. Motivation for amotivation will exert a positive effect on achievement behavior.

Motivation for participating in sports

We used the Sport Motivation Scale (SMS-28) (8) to assess motivation for participating in basketball. This measure has also been used by Bae and colleagues (26) within Korea and consists of a total of five factors: technical skill development and sense of accomplishment/fulfillment, amusement, health, showcasing one's skills, and amotivation. All questions are scored using a 5-point Likert scale, and higher scores are indicative of higher motivation for participating in sports.

Achievement goal orientation

We used a tool developed by Duda and Nicholls (27) to measure achievement goal orientation. This tool has also been used by Yu (28) within Korea and examines two factors: task-goal and self-goal orientation. All questions are scored using a 5-point Likert scale, and higher scores are indicative of higher achievement goal orientation.

Achievement behaviors

We used a tool developed by Park and Kim (17) to measure achievement behavior. All questions are scored using a 5-point Likert scale, and higher scores are indicative of higher levels of achievement behavior.

Statistical analysis

Statistical analysis was performed using SPSS 25.0 and AMOS 25.0 (IBM Corp., Armonk, NY, USA). First, frequencies and percentages were calculated to identify the distribution of the surveyed basketball players. Second, a confirmatory factor analysis was performed to verify the validity of the research variables, including motivation for participation, achievement goal orientation, and achievement behavior. Additionally, Cronbach's α was calculated to verify the reliability of the variables. In the analysis of factors, factor loading was based on ≥ 0.5 . Third, structural equation modeling was used to verify the hypotheses. The significance level for all analyses was $\alpha=0.05$.

Results

Confirmatory factor analysis

A verification factor analysis was performed to verify the main variables of this study, which included the development of technical skills and achievement of fulfillment, enjoyment and socialization, improvement of health and fitness, and motivation for participation (e.g., external motivation, task-goal orientation, and self-orientation). The conformity of the measurement model was $\chi^2=1,265.338$ ($df=637$, $P<0.001$, $\chi^2/df=1.986$, standardized root mean square residual [SRMR]=0.060, Tucker–Lewis index [TLI]=0.913, comparative fit index [CFI]=0.921, root mean square error of approximation [RMSEA]=0.052, 90% confidence interval [CI]=0.057–0.067), indicative of a good fit. Additionally, the factor loading was statistically significant ($P<0.001$) for all measurement variables, including motivation for participation in sports, achievement goal orientation, and achievement behavior. All standardized factor loadings were higher than 0.70, and no theoretically unsuitable negative error variances were observed.

Concept reliability and average variance extracted values

Next, the concept reliability (CR) and average variance extracted values were analyzed to verify convergent validity. As shown in Table 2, the results of the CR analysis for potential factors influencing participation were as follows: development of technical skill and sense of fulfillment (0.939), amusement (0.938), health (0.825), showcasing one's skills (0.788), amotivation (0.818). Values for potential variables such as performance goal orientation (0.578) and achievement behavior (0.733) were all higher than 0.50. Therefore, concentration justification was confirmed. In contrast, in the validity analysis for technical skill development and performance, values were lower than average for motivation to improve health and fitness, pleasure and socialization, task improvement and task-goal orientation, and performance behavior. Among the participants' motivations to improve achievement orientation and achievement behaviors, technological development and performance showed lower validity than average 0.50.

Table 2: Validity of measurement tools

Variables		Non-stand- ardized esti- mation	Standard- ized estima- tion	Standard error	t	Concept reliability	Average variance extracted
Development of technical skills and attaining a sense of fulfillment	→ pm 07	1.000	0.823	-	-	0.939	0.719
	→ pm 12	1.070	0.811	0.069	15.404***		
	→ pm 22	1.016	0.808	0.066	15.329***		
	→ pm 24	1.022	0.808	0.067	15.319***		
	→ pm 26	1.015	0.828	0.064	15.906***		
	→ pm 27	1.013	0.855	0.061	16.714***		
Amusement	→ pm 01	1.000	0.911	-	-	0.938	0.716
	→ pm 02	0.933	0.852	0.046	20.110***		
	→ pm 03	1.027	0.880	0.047	21.714***		
	→ pm 05	0.931	0.838	0.048	19.418***		
	→ pm 17	0.801	0.739	0.053	15.188***		
	→ pm 19	0.792	0.710	0.056	14.198***		
Health	→ pm 04	1.000	0.806	-	-	0.825	0.548
	→ pm 09	0.841	0.621	0.084	10.061***		
	→ pm 15	0.781	0.576	0.085	9.238***		
	→ pm 16	1.028	0.851	0.071	14.519***		
Showcasing one's skills	→ pm 08	1.000	0.794	-	-	0.788	0.554
	→ pm 11	0.983	0.740	0.090	10.860***		
	→ pm 21	0.794	0.683	0.078	10.131***		
Amotivation	→ pm 10	1.000	0.713	-	-	0.818	0.559
	→ pm 14	0.987	0.783	0.090	10.985***		
	→ pm 20	1.027	0.732	0.099	10.394***		
	→ pm 28	1.113	0.769	0.103	10.837***		

*** $P < 0.001$; tested via confirmatory factor analysis

Verification of research model

Structural equation modeling was conducted to verify the relationship between motivation for participating in basketball, achievement goal orientation, and achievement behavior. The maximum likelihood method was applied to estimate the parameters. Findings regarding the appropriateness of the research model were as follows: $\chi^2=1,276.482$ ($df=638$, $P < 0.001$), $\chi^2/df=2.001$, SRMR=0.061, TLI=0.912, CFI=0.920, RMSEA=0.063, 90% CI=0.058–0.068. Previous results show that values below 0.08 can be interpreted as indicating an acceptable fit, while values below 0.05 typically indicate excellent model fit.

Hypothesis 1

Table 3 shows the results of the verification steps for Hypothesis 1, which stated that motivation to

participate in basketball influences achievement goal orientation. Achievement goal orientation was analyzed separately for the two sub-factors of task-goal orientation and self-goal orientation. In terms of task-goal orientation, motivation related to the development of technical skills and achieving a sense of fulfillment ($\beta=0.473$, $t=6.574$, $P < 0.001$), amusement ($\beta=0.335$, $t=4.503$, $P < 0.001$), and health ($\beta=0.221$, $t=3.472$, $P < 0.001$) exerted significant positive effects. In contrast, motivation related to showcasing one's skills and amotivation did not exert significant effects on task-goal orientation. Thus, the findings support Hypotheses 1-1, 1-2, and 1-3 but not Hypotheses 1-4 and 1-5.

Table 3: Verification of Hypothesis 1

<i>Path</i>		<i>Non-standardized coefficient (B)</i>	<i>Standardized coefficient (β)</i>	<i>Standard error</i>	<i>t</i>
Development of technical skills and attaining a sense of fulfillment	→ Task goal orientation	0.518	0.473	0.079	6.574***
Amusement	→ Task goal orientation	0.321	0.335	0.071	4.503***
Health	→ Task goal orientation	0.243	0.221	0.070	3.472***
Showcasing one's skills	→ Task goal orientation	-0.076	-0.076	0.055	-1.394
Amotivation	→ Task goal orientation	-0.036	-0.035	0.044	-0.828
Development of technical skills and attaining a sense of fulfillment	→ Self-goal orientation	0.442	0.509	0.110	4.016***
Amusement	→ Self-goal orientation	-0.045	-0.059	0.098	-0.455
Health	→ Self-goal orientation	0.259	0.297	0.098	2.632**
Showcasing one's skills	→ Self-goal orientation	0.052	0.066	0.075	0.694
Amotivation	→ Self-goal orientation	0.101	0.124	0.061	1.642

** $P < 0.01$, *** $P < 0.001$; tested via structural equation model analysis

The analysis further verified the effect of motivation to participate in basketball on self-goal orientation. The results indicated that motivation related to the development of technical skills and achieving a sense of fulfillment ($\beta = 0.509$, $t = 4.016$, $P < 0.001$) and motivation related to improving health ($\beta = 0.297$, $t = 2.632$, $P < 0.01$) exerted significant positive effects on self-goal orientation. In contrast, motivation related to amusement, showcasing one's skills, and amotivation did not exert significant effects on self-goal orientation. Thus,

the findings supported Hypotheses 1-1 and 1-3 but not Hypotheses 1-2, 1-4, and 1-5.

Hypothesis 2

Table 4 shows the results of the verification steps for Hypothesis 2, which stated that achievement goal orientation will influence achievement behavior. Both task-goal orientation ($\beta = 0.442$, $t = 3.292$, $P < 0.001$) and self-goal orientation ($\beta = 0.201$, $t = 2.963$, $P < 0.001$) exerted a significant positive effect on achievement behavior, supporting both Hypotheses 2-1 and 2-2.

Table 4: Verification of Hypothesis 2

<i>Path</i>		<i>Non-standardized coefficient (B)</i>	<i>Standardized coefficient (β)</i>	<i>Standard error</i>	<i>t</i>
Task-goal orientation	→ Achievement behaviors	0.414	0.442	0.126	3.292***
Self-goal orientation	→ Achievement behaviors	0.238	0.201	0.080	2.963**

** $P < 0.01$, *** $P < 0.001$; tested via structural equation model analysis

Hypothesis 3

Table 5 shows the results of the verification steps for Hypothesis 3, which argued that motivation to

participate in basketball will influence achievement behavior. The analysis verified the effect of motivation to participate in sports on task-goal

orientation. Motivation related to the development of technical skills and achieving a sense of fulfillment ($\beta=0.473$, $t=6.574$, $P<0.001$), amusement ($\beta=0.335$, $t=4.503$, $P<0.001$), and improving health ($\beta=0.221$, $t=3.472$, $P<0.001$) exerted significant positive effects on task-goal orientation. In

contrast, motivation related to showcasing one's skills and amotivation did not exert significant effects on task-goal orientation. Thus, the findings supported Hypotheses 3-1, 3-2, and 3-3 but not Hypotheses 3-4 and 3-5.

Table 5: Verification of Hypothesis 3

<i>Path</i>		<i>Non-standardized coefficient (B)</i>	<i>Standardized coefficient (β)</i>	<i>Standard error</i>	<i>t</i>
Development of technical skills and attaining a sense of fulfillment	→ Achievement behaviors	0.266	0.259	0.128	2.075*
Amusement	→ Achievement behaviors	0.089	0.099	0.097	0.911
Health	→ Achievement behaviors	-0.025	-0.024	0.099	-0.256
Showcasing one's skills	→ Achievement behaviors	-0.107	-0.114	0.071	-1.499
Amotivation	→ Achievement behaviors	-0.040	-0.041	0.056	-0.702

* $P<0.05$; tested via structural equation model analysis

The analysis also verified the effect of motivation to participate in basketball on self-goal orientation. Motivation related to the development of technical skills and achieving a sense of fulfillment ($\beta=0.509$, $t=4.016$, $P<0.001$) and motivation related to health ($\beta=0.297$, $t=2.632$, $P<0.01$) exerted significant positive effects on self-goal orientation. In contrast, motivation related to amusement, showcasing one's skills, and amotivation did not exert significant effects on self-goal orientation. Thus, the findings supported Hypotheses 3-1 and 3-3 but not Hypotheses 3-2, 3-4, and 3-5.

Among motives for participating in basketball, only development of technical skills and achieving a sense of fulfillment exerted a direct significant effect on achievement behavior ($\beta=0.259$, $t=2.075$, $P<0.05$). That is, higher motivation to develop skills and feel a sense of accomplishment was associated with more positive performance behavior. In contrast, motivation related to amusement, showcasing one's skills, and amotivation did not exert significant effects on achievement behavior. Thus, the findings supported Hypothesis 3-1 but

not Hypotheses 3-2, 3-3, 3-4, and 3-5. These findings suggest that motivation to develop skills and attain a sense of accomplishment can directly enhance achievement behavior, but that motivation related to other factors such as amusement, health, showcasing one's skills, and amotivation cannot.

Discussion

The present study aimed to verify the structural relationships among motivation for participating in sports, achievement goal orientation, and achievement behavior in a sample of female high-school basketball players in Korea. The analysis revealed that motivation related to the development of technical skills and achieving a sense of fulfillment, amusement, and health exerted a positive effect on task-goal orientation, suggesting that it is necessary to enhance motivation in these areas to increase task-goal orientation among young players. Furthermore, motivation to participate in basketball was significantly associated with self-goal

orientation. Greater motivation related to technical skill development, attaining a sense of accomplishment, and improving health was associated with greater self-goal orientation. These findings suggest that fostering motivation to develop skills, achieve fulfillment, and improve health can enhance self-goal orientation in female high-school basketball players. Our findings are in accordance with those of Yu (28) and Park and Kim (17), who reported similar positive relationships. The present study also verified the influence of achievement goal orientation on achievement behavior. Both task-goal and self-goal orientation had a significant effect on achievement behavior. Bae (26), Jeong (29), and Nicholas (20) reported similar tendencies when analyzing the effect of achievement goal orientation on performance behavior among athletes. Together, these findings highlight the importance of improving both task-goal and self-goal orientation for enhancing performance among high-school basketball players. The analysis also verified the effect of motivation on achievement behavior. However, only motivation for the development of technical skills and attaining a sense of fulfillment exerted a significant direct effect on achievement behavior. While this effect was positive, there were no significant direct effects of motivation related to amusement, improving health, showcasing one's skills, or amotivation on achievement behavior. Thus a player's participation motivation for participating in sports does not contribute to eliciting achievement behavior. These findings are in accordance with the significant positive relationships observed by Zuber and Conzelmann (19) and Choi and Chun (23). The present results highlight the need to foster motivation to develop technical skills and attain a sense of fulfillment to improve performance among young basketball players. Based on the results outlined above, the practical implications of this study are as follows. Given the relative unpopularity of basketball in Korea, it is crucial for players to develop high levels of achievement goal orientation and engage in real efforts to translate such motivation into action. The current findings indicate that this goal-oriented and achievement-oriented attitude should precede

motivation for participating in basketball. Expanding support for athletes in terms of associations and institutions and offering enhanced rewards for winning competitions will help enhance motivation to participate in basketball and achieve goals, in turn promoting the translation of motivation into achievement behavior.

In an academic context, the present study is significant in that it extends findings related to motivation for learning to motivation for participation in sports. Nonetheless, the study had some limitations. Importantly, data were derived from only 256 high-school basketball players in Busan, Korea, which may limit the generalizability of the findings to all sports. Moreover, the potential effects of gender should be considered, as the study sample involved only female players. Therefore, follow-up studies should aim to achieve more comprehensive results by expanding the scope of the analysis to other sports and countries.

Conclusion

High-school basketball players are younger than college or professional players, and their stage of mental development is relatively less mature. Thus, they may choose to quit the sport when motivation to achieve their goals is lower than that observed in adult basketball players. Therefore, motivation to achieve goals should be fostered among young players to maintain their continuous and sustainable activity as basketball players when transitioning to college or professional leagues.

Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

Acknowledgements

This research received no external funding.

Conflict of interest

The authors have no conflicts of interest to declare.

References

1. Vukasevic V, Mitrovic M, Masanovic B (2020). A comparative study of motor ability between elite basketball players from different regions. *Sport Mont*, 18 (1):3-7.
2. Kozina Z, Iermakov S, Crețu M, et al (2017). Physiological and subjective indicators of reaction to physical load of female basketball players with different game roles. *J Phys Educ Sport*, 17 (1):378.
3. Mancha-Triguero D, Garcia-Rubio J, Calleja-Gonzalez J, et al (2019). Physical fitness in basketball players: A systematic review. *J Sports Med Phys Fitness*, 59:1513-1525.
4. Choi JH, Lee JM (2012). Relation between motivation, psychological euphoria and adherence intention in elders. *The Korea Contents Association*, 12 (12):156-169.
5. Seok R, Kwak JH (2021). The Meditated Effect of Multidimensional Sport Confidence in the Relationship between High School Taekwondo Athletes' Achievement Goal Orientation and Perceived Performance. *The Korean Journal of Growth and Development*. 29(2):253~261.
6. Kim SY, Nam JJ (2020). Influence that the achievement goal propensity of schoolchildren training Taekwondo has on sports confidence & self-control. *The Korea Journal of Sports Science*, 29(4):429-443.
7. Lee EC (2017). Analysis of effects of learning motivation on the interaction in online cooperation learning. *The Korea Contents Association*, 17 (7):416-424.
8. Vallerand RJ (1992). The academic motivation scale: A measure of intrinsic, extrinsic and motivation in education. *Educ Psychol Meas*, 52:1003-1017.
9. Baek MK, Kim SY (201)The Effects of Sports Participative Motivation on career preparation behavior and Psychological Happiness of College Taekwondo Demonstrators. *Journal of the World Society of Taekwondo Culture*, 11(2):235-250.
10. Choi CH (2019). The Korean Golf Industry from the Perspective of the Self-determination Theory: Age Differences in Golf Participation Motivation and Fun. *Journal of Golf Studies*, 13(2):91-104.
11. Carvalho HM, Gonçalves CE, Collins D, et al (2018). Growth, functional capacities and motivation for achievement and competitiveness in youth basketball: an interdisciplinary approach. *J Sports Sci*, 36 (7):742-748.
12. Duris L (2019). *Performance Compensation: How Are NBA Collective Bargaining Agreements and Players' Union Movements Improving Players' Compensation for Their Performance?* Unpublished Doctoral dissertation. Haverford College. Department of Economics, USA.
13. Rugg C, Kadoor A, Feeley BT, et al (2018). The effects of playing multiple high school sports on National Basketball Association players' propensity for injury and athletic performance. *Am J Sports Med*, 46 (2):402-408.
14. Kim. SY, Baek SI, Jung WJ (2019). The Influence of Communication Ability Sports Leaders on the Achievement Goal Orientation and Positive Psychological Capital of Participants. *The Korean Journal of Sport*, 17(4):213-223.
15. Seok HK, Kim. SY, Baek SI (2019). The Influence of Perfectionism Tendency on the Achievement Goal Orientation and Social Attitude of Life Dance Participants. *The Korean Journal of Sport*, 17(4):203-211.
16. Choi JC, Jang SY (2017). The Relationship among Achievement Goal Orientation, Self-Management and Sport Confidence In High School Taekwondo Players. *The Korean Journal of Physical Education*, 56(1), 217-230.
17. Park JG, Kim KH (2012). Understanding the Relationships between athletic identity and achievement behavior using expectancy-value model: multi-group analysis across sport type and career. *Korean Society of Sport Psychology*, 23 (2):181-196.
18. Bashan I, Toros T (2018). The examination of motivational climate and goal orientation in basketball players-who did and did not experience a sports injury. *J Hum Sci*, 15 (4):1854-1862.
19. Zuber C, Conzelmann A (2019). Achievement-motivated behavior in individual sports (AM-BIS-I)—coach rating scale. *German Journal of Exercise and Sport Research*, 49 (4):410-423.
20. Nichollas JG (1989). Achievement motivation; conceptions of ability, subjective experience

- task choice, and performance. *Psychol Rev*, 91:328-346.
21. Sánchez-Jover F, Gómez A (2017). Training habits, motivation, quality of life and sport injuries in 12 to 15 years old basketball players. *J Hum Sport Exerc*, 12 (3):760-774.
 22. Li LY, Tsai CC (2017). Accessing online learning material: quantitative behavior patterns and their effects on motivation and learning performance. *Comput Educ*, 114:286-297.
 23. Choi C, Chun JJ (2011). Taekwondo Poomsae the movement of players meet performance targets and continuous training on behavior. *Korea Journal of Martial Arts*, 5 (1):113-127.
 24. Elliot AJ, Hulleman CS (2017). *Achievement goals*. In: A. J. Elliot, C. S. Dweck, & D. S. Yeager (Eds.), *Handbook of competence and motivation: Theory and application* (pp. 43–60). The Guilford Press. USA.
 25. Orlick T, Partington J (1999). Modeling mental links to excellence: Mte-2 for quality performance. *Journal of Excellence*, 2:65-83.
 26. Bae YH (2005). *The relationship of achievement goal orientation, sport participation motivation, sport commitment and the types of attribution of amateur golfers*. Unpublished Doctoral dissertation, Kyungshung University, Korea
 27. Duda JL, Nicholls JL (1989). Dimensions of achievement motivation in schoolwork & sport. *J Educ Psychol*, 84:290-299.
 28. Yu SW (2006). *The relationship between achievement goal orientation, internal motivation and teaching effectiveness according to coaching style of golf instructor*. Unpublished Doctoral dissertation, Yongin University, Korea.
 29. Jeong YK (2007). The effect of children's goal orientation on their achievement behavior in failure. *The Korean Journal of Developmental Psychology*, 20 (2):185-203.