

A Study on the Leader's Super-leadership, Self-leadership, Psychological Empowerment, Sport Commitment and Performance Perceived by Taekwondo Athletes

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Abstract

The purpose of this study is to verify the research model and identify the causal relationship among leader's super leadership, self-leadership, psychological empowerment, sport commitment and performance perceived by Taekwondo athletes. The subjects of the study were middle and high school Taekwondo athletes registered in the Korea Taekwondo Association in 2020 and 2021, and data from 454 people were used as final effective samples through convenience sampling. The collected data used the SPSS 23.0 version and the Amos 21.0 version to verify the hypothesis. As a result, the following conclusions were obtained. First, we discovered that the leader's super leadership had a positive impact on the athlete's self-leadership, psychological empowerment, and sport commitment. Second, we found that the athlete's self-leadership had a positive effect on psychological empowerment, sport commitment, and performance. Third, we found that athlete's psychological empowerment had a positive effect on sport commitment and performance. Fourth, we found that the athlete's sport commitment had a negative effect on performance. Therefore, this study has reminded us about importance of psychological empowerment and sport commitment for explaining the relationship between leadership type and performance perceived by Taekwondo athletes, and might contribute to the theoretical discussion of variables related to athletes' performance.

Keywords: Super-leadership, Self-leadership, Psychological Empowerment, Sport Commitment, Performance

1. Introduction

The main goal of athletes in the sports field is to improve their performance, and the importance of psychological factors is emphasized among several factors which can further enhance it [1]. In particular, the leader's educational enthusiasm and appropriate leadership are considered important so that athletes can

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enhance their training skills based on spontaneity and autonomy for being future-oriented talents.

Among the various styles of leadership, super-leadership (SL) induces leaders to motivate and make correct judgments on their own through autonomy, originality, and creativity [2, 3], to achieve the goal of the team [4]. The recent advent of the information age is gradually changing the horizontal relationship between leaders and athletes, and athletes are growing as leaders by themselves, and super leadership will be newly applied in the sports field as suitable leadership theory [5].

The most important and necessary quality of sport athletes is self-management, which is recognized as a necessary factor to improve the athlete's level of self-leadership, self-control, physical training, mental training, achievement of goals, and personal daily life [6]. It can be seen to contribute to athletes' self-leadership and have a positive effect on their commitment and performance, and can be used as a useful self-management strategy to improve athletes' performance for acquiring exercise technique and enhancing their efficacy in the process of goals [7, 8].

It has been proven that when athletes' psychological empowerment (PE) reaches a high level, the degree of commitment in training also increases [9]. Therefore, it can be implied if athletes strive to increase the level of PE by themselves, they can increase the degree of commitment in exercise. The experience of commitment in the sports field induces pleasure or satisfaction, which acts as a very important motivation to arouse the desire to continue exercise [10]. According to previous studies on sport commitment (SC) related to empirical perspective, leadership behavior perceived by athletes plays an important role in determining SC, and high level of SC is a key factor for determining individual performance [11]. Leaders' leadership in the process of fostering an athlete might be a positive role for strengthening the level of athlete's motivation, and this strengthened motivation is the ultimate basis for improving performance [12].

According to the leader's leadership in sports groups, it is an appropriate task to identify the causal relationship which can improve SC and performance [13]. Therefore, it can be a very meaningful study to identify the structural relationship between the leader's SL and the athlete's psychological factors in terms of improving Taekwondo athlete's performance.

2. Study Hypothesis

2.1 Relationship Between Super-leadership and Self-leadership

In a study on the correlation between SL of school principals and self-leadership of teachers, SL and self-leadership had a positive correlation [14], and in a study on the effect of nurse manager's SL, super-leadership had a positive effect on nurse's self-leadership [15]. In other words, the more a senior voluntarily motivates SL, the higher self-leadership of employee is formed, in which can indicate the influence relationship between the constituent concept of SL and self-leadership [16]. Based on these previous studies, it is possible to predict a positive relationship between the Taekwondo leader's SL and the Taekwondo athlete's self-leadership. Based on the above evidence, the following hypothesis was established.

Hypothesis 1. Leader's SL perceived by the Taekwondo athlete will have a positive effect on self-leadership.

2.2 Relationship Between Super-leadership and Psychological Empowerment

According to a study concerning employees in China, it was found that manager's SL had a positive effect on employees' empowerment [2]. This suggested that manager's SL is an important factor in

inducing employees' participation, and suggested the importance of SL. This is a new concept and can enhance employees' self-management skills rather than a unilateral method. Therefore, it could be found that there is a very high correlation between SL which can develop potential abilities to others becoming a self-leader by themselves and PE which can exercise a lot of control over their work by being delegated. Based on the previous study, it is possible to predict a positive relationship between the Taekwondo leader's SL and athlete's PE. Based on the above evidence, the following hypothesis was established.

Hypothesis 2. Leader's SL perceived by the Taekwondo athlete will have a positive effect on PE.

2.3 Relationship Between Super-leadership and Sport Commitment

According to a study concerning college students majoring in physical education, SL which was recognized by college students had a positive effect on learning commitment [17]. This is because leader's SL aims to increase immersion and ownership in work through exemplary actions, visions, and autonomic encouragement, rather than exercising influence through coercion and obedience [18, 19]. Therefore, based on the preceding studies, it is possible to predict a positive relationship between the Taekwondo leader's SL and athlete's SC. Based on the above evidence, the following hypothesis was established.

Hypothesis 3. Leader's SL perceived by the Taekwondo athlete will have a positive effect on SC.

2.4 Relationship Between Self-leadership and Psychological Empowerment

According to a study on the mediating effect of PE in the relationship between self-leadership and service quality, it was found that self-leadership had a positive effect on PE [20]. Furthermore, according to a result of a study on self-leadership and PE of the Taekwondo athletes in sports field, Taekwondo athletes' self-leadership had a significant impact on PE [21]. Therefore, based on the preceding studies, it is possible to predict a positive relationship between self-leadership and PE of Taekwondo athletes. Based on the above evidence, the following hypothesis was established.

Hypothesis 4. Self-leadership perceived by the Taekwondo athlete will have a positive effect on PE.

2.5 Relationship Between Self-leadership and Sport Commitment

In the relationship between self-leadership and SC, athletes' self-leadership which was controlled by themselves had a positive effect on SC [8], also according to a study related to students' academic commitment, high level of self-leadership had a positive effect on students' adaptability to life and academic commitment [22]. Therefore, based on the preceding studies, it is possible to predict a positive relationship between self-leadership and exercise commitment of Taekwondo athletes. Based on the above evidence, the following hypothesis was established.

Hypothesis 5. Self-leadership perceived by the Taekwondo athlete will have a positive effect on SC.

2.6 Relationship Between Self-leadership and Performance

In terms of the relationship between self-leadership and performance, high levels of athlete's self-leadership had a positive effect on high confidence in sports and perceived performance [23]. In addition, according to a study on the relationship between self-leadership and performance of the Taekwondo athlete, it argued that self-leadership is an important variable in arousing positive emotions of athletes more than self-management concerning high performance [24]. Therefore, based on the preceding studies, it is possible

to predict a positive relationship between self-leadership and performance of the Taekwondo athletes. Based on the above evidence, the following hypothesis was established.

Hypothesis 6. Self-leadership perceived by the Taekwondo athlete will have a positive effect on performance.

2.7 Relationship Between Psychological Empowerment and Sport Commitment

According to a study on the relationship between PE and SC of wrestlers, the result of study showed that PE had a positive effect on SC, and researcher suggested that leader's ability is required to develop self-determination and influence through confidence [25]. Furthermore, a study on the relationship between Taekwondo athletes' PE and SC showed that Taekwondo athletes' PE had a positive effect on SC [26]. Therefore, based on the preceding studies, it is possible to predict a positive relationship between PE and SC of the Taekwondo athletes. Based on the above evidence, the following hypothesis was established.

Hypothesis 7. PE perceived by the Taekwondo athlete will have a positive effect on SC.

2.8 Relationship Between Psychological Empowerment and Performance

According to a study on the relationship between PE and performance, self-determination, task meaning, and influence except role performance among the sub-factors of empowerment showed a significant impact on performance [26]. In addition, according to another study concerning leader's leadership perceived by handball athletes, PE can be an important role in the relationship between leadership and performance [27]. Therefore, based on the preceding studies, it is possible to predict a positive relationship between PE and performance of Taekwondo athletes. Based on the above evidence, the following hypothesis was established

Hypothesis 8. PE perceived by the Taekwondo athlete will have a positive effect on performance.

2.9 Relationship Between Sport Commitment and Performance

According to a study on the relationship between leadership type of the Judo leader and performance, Judo athlete's SC had a positive effect on game maturity and psychological maturity among the sub-factors [28]. Also, according to another research result, the researcher verified that the cognitive and behavioral commitment of amateur golfer were directly related to golf performance [29]. Furthermore, in a study on the relationship among exercise flow, competitive state anxiety and performance of Taekwondo athletes, the athletes' SC had a positive effect on perceived performance [30]. For this reason, athlete's SC might be able to rouse psychological stability to the athlete and confidence improvement and exercise satisfaction might have a positive effect on performance. Therefore, based on the preceding studies, it is possible to predict a positive relationship between Taekwondo athletes' SC and performance. Based on the above evidence, the following hypothesis was established

Hypothesis 9. SC perceived by the Taekwondo athlete will have a positive effect on performance.

3. Research Method

found to exceed the general standard of 0.874 - 0.991, indicating that the measurement variable was consistent internally.

3.2 Fitness of Study Model & Hypothesis Verification-

After conducting CFA on the measurement model, TLI, CFI, and RMSEA indices were used to find out the suitability of the research model. Looking at the specific analysis results, TLI was 0.958 (≥ 0.90), CFI was 0.963 (≥ 0.90), and RMSEA was 0.079 (good less than 0.080, suitable less than 10), which was found to satisfy the general suitability criteria [32].

Each hypothesis verification was confirmed because it was judged that the research model was relatively suitable and well suited to the empirical data. As a result of hypothesis verification, the results are shown in Table 2.

Table 2. Hypothesis verification results

	<i>Hypothesis</i>	<i>Estimates</i>	<i>s.e</i>	<i>t</i>
H1	Super-Leadership \square Self-Leadership	0.617	0.030	20.445***
H2	Super-Leadership \square Psychological Empowerment	0.198	0.038	5.142***
H3	Super-Leadership \square Sport Commitment	0.194	0.036	5.359***
H4	Self-Leadership \square Psychological Empowerment	0.794	0.054	14.744***
H5	Self-Leadership \square Sport Commitment	0.360	0.064	5.624***
H6	Self-Leadership \square Performance	0.212	0.101	2.093*
H7	Psychological Empowerment \square Sport Commitment	0.500	0.054	9.271***
H8	Psychological Empowerment \square Performance	0.537	0.099	5.423***
H9	Sport Commitment \square Performance	-0.197	0.092	-2.144*

* $p < 0.05$, *** $p < 0.001$

5. Conclusion

This empirical study was researched to provide meaningful data for improving performance through both leader's SL and self-leadership perceived by Taekwondo athletes. In order to achieve the purpose of the study, leader's SL perceived by athletes was determined as an independent variable, athlete's self-leadership, PE, and SC were determined as parameters, and athlete's performance was determined as a dependent variable. According to the result of research, all hypotheses established in the research model were adopted except hypothesis 9 which stated SC has a positive effect on performance. In other words, Taekwondo athletes' SC had a negative effect on their performance, but other variables had a positive effect on their performance. Moreover, we confirmed by above results that the leadership type perceived by Taekwondo athletes had a positive effect on their performance through PE. Therefore, we suggested that proper leadership of the leader and a voluntary attitude of the athlete might be need to improve Taekwondo athletes' performance, and indicated that various measures must be prepared and athlete not only must trust their

leader but also focus on self-management in order to increase the leadership perceived by athlete. Also, we argued that the athlete must make efforts to increase fellowship with their leader. Therefore, the conclusion was reached that the leader must lead the athlete to be a leader by themselves, and the athlete need to make efforts to improve their performance through having meaning of their training based on autonomy. For this reason, we expected that the team and the individual will be able to gradually grow their goals, if leader and athlete act with a sense of duty and responsibility concerning their respective roles.

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