

SELF-EFFICACY AND DECISION MAKING OF HOCKEY REFEREES*

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Abstract

In this study, it was aimed to examine the relationship between self-efficacy and decision making styles of hockey referees. Study design was descriptive and relational. The sample of the study consisted of totally 94 hockey referees, 25 women and 69 men, who participated in the 2019-2020 hall season development seminar held in Antalya-Alanya. "Referee Self Efficacy Scale" developed by Myers et al. (2012), adapted by Karaçam and Pulur (2017) and "Melbourne Decision Making Scale" developed by Mann et al. (1998) and adopted by Deniz (2004) were used as data collection tools. It was determined that the data did not show normal distribution. For this reason, Spearman's rho correlation test, which is one of the non-parametric tests, was used. Descriptive statistics were also used. In the study, it was determined that hockey referees had a high level of self-esteem and careful decision making style in each factor of their self-efficacy and decision making. It was seen that there was a relationship with referees' self-efficacy decision making and self-esteem dimension in decision making, whereas pressure and communication self-efficacy was also related to careful decision making style. As a result, it can be said that there is a positive relationship between hockey referees' self-esteem and careful decision making style in terms of self-efficacy and decision making.

Keywords: Decision making, hockey, referee, self-efficacy, self-esteem.

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Introduction

Sport organizations contains many actors. Referees, determining the fate of sport competitions, appear in this context as actors who perform the most important and challenging tasks. Referees are always at the forefront with the tasks they take on in the sport environment, their traits and the decisions they make. Thus, in sport organizations, they affect not only the competition but also all the relevant stakeholders.

Referees are the people who ensure that the competitions are held safely according to certain rules. Because of their effects on behavior of the players and the game results, referees are a very important part of the competitive environment of sport (Diotaiuti et al., 2017). They are also the mediator between two opponents, responsible for enforcing the rules and regulations of the game and play a key role in ensuring a fair, funny and safe game (Werger, 2017). Therefore, they must have various traits and competencies in order to fulfill their duties in a proper way. One of these is self-efficacy. According to Bandura (1997) self-efficacy is the belief that one can successfully fulfill a particular task. It is a self-confidence which has its own type of task (Lunenburg, 2011). The self-efficacy theory was developed within the framework of Bandura's social cognitive theory. Social cognitive theory sees the behavior from an intermediary perspective. Thus, it indicates that individuals use self-reflection and self-regulation methods that are previously thought in order to demonstrate their own functions instead of responding passively to the environment. Motivation, personal factors and environmental conditions interact each other through behavior. As a result of this; individuals' evaluation their skills, self-effectiveness perceptions, motivation and performance are affected (Spencer, 2015). In respect of referees; self-efficacy is the belief that they have sufficient performance to successfully perform their tasks (Karaçam & Pular, 2017). According to Guillén and Feltz (2011), the effectiveness of the referees is to the extent that they believe that they have the capacity to perform successfully in their work. They express this activity with the following six competencies: Game knowledge, decision making skills, psychological skills, strategic knowledge, communication / game control and physical fitness. These qualifications indicate that a successful referee have sufficient and daily information about the game involved, ensure any decision taken during the competition is fast, correct, in a right time and effective, deal with psychological situations such as pressure and stress that might be caused by external factors, ensure the continuity of the game in a controlled manner, and have physical fitness in accordance with the sports branch (Guillén & Feltz, 2011; Karaçam & Pular, 2017a; Karaçam & Pular, 2017b).

Decision making is a choice between two or more alternatives, and this crops up as a reaction to a problem or situation (Erdost Çolak, 2015). Decision making, whether it is good/bad or right/wrong, is equivalent to making a choice (Koçel, 2014). Decision making is the choices that each individual makes in any situation. While decision making is expressed in this way for the purposes of management; decision making in refereeing focuses on the correct application of the rules. Therefore, referees also make choices concerning the correct application of the rules for the situations and problems they face and this is one of the most important aspects of refereeing. With the decisions they make; they accept the mistakes that may arise and as a result they undertake a complex task against athletes, coaches, team managers, fans and the media (Diotaiuti et al., 2017). Decision-making styles are a guide in their decisions. According to Mann et al. (1998), there are four different decision making styles. These are; careful, avoidant, procrastination and panic decision making style. Those who have careful decision making style; firstly go through the details by obtaining the necessary information, evaluates the alternatives and then make a choice. Those adopting the avoidant decision making style tend to avoid making decisions and does not want to take responsibility. Those who tend to delay decision making without any reason; are the ones who have a procrastination decision-making style. Those who feel under pressure in decision-making and make a decision in a hurry are the ones adopting panic decision-making style (Koçak & Özbek, 2010).

Refereeing is one of the most challenging and troublesome tasks in the sports field (Diotaiuti et al., 2017). Therefore, it requires both having high self-efficacy and being fast and accurate in the decisions to be made. While self-efficacy of the referees can be considered as an indication of their competence in refereeing, the decision-making styles are an indication that they can make correct and quick decisions regarding the situations they face and solve conflicts in the most appropriate way. On the other hand; the hockey branch is known to be one of the 3 most popular branches in many countries and has the most audience after football in the Olympic games (<http://turkhokey.gamedata.pro/sayfalar/2/tarihce>). For this reason, it is thought that revealing the self-efficacy and decision making of the hockey referees and examining whether there is a relationship between self-efficacy and decision making will contribute to the field. Therefore, in this study, it was aimed to examine the self-efficacy and decision making of the hockey referees. For this purpose, answers were sought for the following questions:

Q1: What are the self-efficacy levels of the hockey referees?

Q2: What are the self-esteem and decision-making styles of hockey referees in decision making?

Q3: Is there a relationship between self-esteem and decision making of hockey referees?

Methodology

The Sample of The Study

The sample of the study which was designed as descriptive and relational consisted of totally 94 hockey referees, 25 women and 69 men chosen via convenience sampling method and volunteers for the study, who participated in the 2019-2020 hall season development seminar held in Antalya-Alanya.

Data Collection Tools

Data of the study was obtained through “Referee Self-Efficacy Scale” and “Melbourne Decision-Making Scale”. “Referee Self-Efficacy Scale” was developed by Myers et al. (2012) and physical competence factor was added by Karaçam and Pultur (2017) who made the adaptation to Turkish. The scale consists of 18 items and 5 factors. These factors are; physical competence (5 items), game information (3 items), decision making (3 items), pressure (3 items) and communication (4 items). The scale is rated as 1-2 low, 3 medium and 4-5 high. The scale has no reverse scored items. In addition, the self-efficacy level in the factors is directly proportional to the scores received (Karaçam & Pultur, 2017). “Melbourne Decision Making Scale”, which was developed by Mann et al. (1998) and adopted to Turkish by Deniz (2004), consists of two parts. In the first part, there are 6 items related to self-esteem (self-confidence) in decision making. Three of the items are scored reversely. This section is about determining self-esteem and self-confidence of the individual in decision making. In the second part of the scale, there are 4 sub-dimensions consisting of 22 items for decision making style. These are careful decision making style (6 items), avoidant decision making style (6 items), procrastination decision making style (5 items) and panic decision making

style (5 items). Scoring of the scale is; it is true (2), sometimes true (1) and not true (0) (Deniz, 2004).

Data Analysis

In the analysis of the data obtained from the study; descriptive and correlation statistics were made. Kolmogorow Smirnov test was done in order to determine the normality distribution. As a result of the test, it was determined that there was a non-parametric distribution and for this reason; Spearman’s rho test was used for correlation.

Results

In this section, the findings from statistical analysis are given in tables.

Table 1. Demographic characteristics of hockey referees

Variables		N	f	%
Gender	Female	25	25	26.6
	Male	69	69	73.4
Age	17-23	33	33	35.1
	24-30	27	27	28.7
	31-37	12	12	12.8
	38-44	16	16	17.0
	45- +	6	6	6.4
Education Status	Middle School	1	1	1.1
	High School	28	28	29.8
	Undergraduate	59	59	62.8
	Graduate	6	6	6.4
Marital Status	Married	32	32	34.0
	Single	62	62	66.0
Category	Candidate Referee	58	58	61.7
	Provincial Referee	31	31	33.0
	National Referee	3	3	3.2
	International Referee	2	2	2.1
Refereeing Year	1-3 years	82	82	87.2
	4-6 years	11	11	11.7
	7-9 years	1	1	1.1
Total		94	94	100.0

The demographic characteristics of the sample are presented in Table 1. 73.4 % of the hockey referees participating in the study are male, 35.1 % are between 17-23 years old, 62.8 % are undergraduate, 66.0 % are married, 61.7 % are candidate referees and 87.2 % are refereeing 1-3 years.

Table 2. Self-efficacy of hockey referees

Factors	N	Mean	SD	Min.	Max.
Physical Competence	94	4.60	.56834	2.60	5.00
Game Information	94	4.53	.55608	3.00	5.00
Decision Making	94	4.62	.50855	3.00	5.00
Pressure	94	4.74	.54686	2.33	5.00
Communication	94	4.79	.40818	3.25	5.00

When we look at the averages in Table 2, where descriptive statistics of hockey referees' self-efficacy are given according to factors, it is seen that they have high self-efficacy in all physical competence, game information, decision making, pressure and communication factors. The highest self-efficacy is in communication and pressure factors.

Table 3. Decision making of hockey referees

Sub Dimensions	N	Mean	SD	Min.	Max.
Self-esteem	94	10.51	1.80051	4.00	12.00
Careful	94	9.64	2.25689	2.00	12.00
Avoidant	94	3.10	2.33288	0.00	12.00
Procrastination	94	1.88	1.87144	0.00	10.00
Panic	94	2.37	2.11997	0.00	10.00

When we go through Table 3; while hockey referees have high self-esteem in decision making and have a high average in careful decision making style, they have a low average in procrastination, panic and avoidant decision making style.

Table 4. The relationship between hockey referees' self-efficacy and decision making

Factors	Sub Dimensions	Self-esteem	Careful	Avoidant	Procrastination	Panic
Physical Competence		.164	.008	-.043	.014	.022
Game Information		.160	-.123	-.103	-.022	-.142
Decision Making		.306**	.110	-.108	-.161	-.091
Pressure		.232*	.204*	-.103	-.148	-.038
Communication		.206*	.242*	-.179	-.063	-.196

*p<0.05, **p<0.01

The relationship between hockey referees' self-efficacy and self-esteem and decision-making styles in decision-making are presented in Table 4. According to the table; there is a positive and moderate relationship between the self-efficacy decision making and self-esteem in decision making of the hockey referees' ($p < 0.01$); while there is a positive and low relationship between pressure and communication self-efficacy and self-esteem and careful decision-making style ($p < 0.05$).

Discussion

This study aimed to examine the relationship between hockey referees' self-efficacy and decision making. Considering the findings obtained for this purpose; hockey referees were found to have high self-efficacy in all of the physical competence, game knowledge, decision making, pressure and communication factors. It was found that they had high self-esteem and careful decision-making style in decision making; in terms of the relationship in self-efficacy and decision-making there was a relationship between self-efficacy decision making and self-esteem, while self-esteem and careful decision making style were associated with pressure and communication self-efficacy.

Self-efficacy is considered as an integral part of successful experiences in sports (Diotaiuti et al., 2017). Therefore, referees are expected to have high self-efficacy. Because it is thought that success and self-efficacy will be directly proportional. In accordance with this prediction, a large number of studies have been carried out in regard to referee self-efficacy in the literature. Going through the studies on referee self-efficacy; Dereceli et al. (2019) stated that football referees had high self-efficacy levels. In the study; determining the basketball referees' self-efficacy and performance relationship conducted by Karaçam & Adıgüzel (2009), they revealed that the self-efficacy of the referees would positively affect their performance. In the study of Saputra et al. (2018) with the assistant football referees in the Indonesian league; they state that the referees have high physical competence and that physical competence is related to decision making. The high self-efficacy of the referees obtained in the study is consistent with these results.

It turned out that the hockey referees had the highest self-esteem and then careful decision making style. However, they are in low level concerning procrastination, avoidant, and panic decision making. This means that hockey referees have high self-esteem and do not prefer to use other decision-making styles as a result of their use of careful decision making style, they make careful decisions by evaluating the situation with all details and they do not show postponing the decision, avoiding decision making or panic decision making behaviors in a hurry. In the research of Türksoy Işım et al. (2019) with male footballers; it is stated that football players have high self-esteem and careful decision making skills in decision making. In the study of Aksu & Arslan (2020) examining the decision making of the football referees in different classifications; they reveal that the self-esteem is above average while the panic decision making style of referees aged 20 and under is high. The result of this study is not compatible with the study mentioned. In Atılgan & Tükel (2019) study, they state that the referees' careful decision making styles are high, but the avoidant, procrastination and panic decision making styles are low. In the study with tennis referees, Koçak & Özbek (2010) concluded that the more the levels of referees' self-esteem increased, the more careful decision making styles increased while avoidant, procrastination and panic decision making styles decreased. Gülle et al. (2017) stated that the referees' self-esteem and careful decision

making styles were high in their study of examining the football referees' decision making styles. These findings are consistent with the results of the study. Also, looking to the decision making style reviews concerning athletes; the following results are presented: Pular & Akcan (2017) state that elite orienteering athletes have high careful decision making styles and low panic decision making styles. Üstün et al. (2016) concluded that athletes playing in Konya junior volleyball league have high self-esteem and careful decision making styles in decision making, and other decision making styles are low. Kelecek et al. (2015) stated that the athletes in different sports branches have procrastination as the highest while careful decision making styles as the lowest. Akpınar et al. (2015) stated in their study that hockey athletes have high self-esteem in decision making, low avoidant and procrastination decision making styles, and moderate panic decision making styles.

In terms of self-efficacy and decision making for hockey referees; while decision making self-efficacy is related to self-esteem; pressure and communication self-efficacy are related to self-esteem and careful decision making style. This reveals that the more decision making self-efficacy increase the more referees' self-confidence increase in the situations that require decision making and also referee's challenge with pressure and increase of self-efficacy in these situations are directly proportional to self-esteem and careful decision making. In Kılıç & Öner's (2019) study, in which they examine the relationship between self-efficacy and decision making concerning basketball referees, they state that there is a positive relationship between self-esteem, careful and procrastination decision making styles in decision making and physical competence; between self-esteem, careful, procrastination, avoidant and panic decision making styles in decision making and game knowledge; between self-esteem, careful, procrastination, avoidant and panic decision making styles in decision making and self-efficacy decision making; between self-esteem, careful decision making styles in decision making and pressure self-efficacy between self-esteem, careful, procrastination and panic decision making styles in decision making and communication self-efficacy. It appears to be partially compatible with the findings in this study. In the thesis study of Sarıdede (2018), it is stated that there is a relationship between volleyball referees' self-efficacy and decision making styles as follows: Game knowledge and decision making self-efficacy is positively related to careful decision making, and all self-efficacy is negatively related to avoidant, procrastination and panic decision making styles. On the other hand, Deryahanoğlu et al. (2016), in the study with kickbox referees, reveal that the referees' careful decision making styles are positively related to professional competence and negatively with other decision making styles. In essence, the relationship between the self-efficacy and decision making of the referees will increase the success and motivation of the tasks they assume and responsibilities that they take on. Because their beliefs that their self-efficacy is high will be able to realize through decision making styles that are correct, on time and free from the influence of external factors. However, it is thought that the difference between the results and the studies mentioned here may stem from the branch of the referees. After all, every sports branch has different driving forces in its nature.

Conclusions and Recommendations

As a result; hockey referees have high self-efficacy; prefer independent (self-esteem) and careful decision making styles; as they make the right decision, cope with pressures and communicate effectively because of self-efficacy traits, they are more likely to use independent (self-esteem) and careful decision making styles. According to this result;

planning the trainings for the hockey referees in order to make an independent and more careful decision and increase the self-efficacy relationship; and examining the relationship between self-efficacy and decision making according to the demographic variables and performance levels, not discussed in this study, can be suggested for the next studies.

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