

# The investigation of sportsmanship behaviors of university students

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## Abstract

The aim of the present study was to examine the effective factors on sportsmanship behaviors of university students. With this purpose, students' attitudes for rules, injurious acts, opponent game perspective and sportsmanship behaviors were examined, and the effects of these factors were modeled via structural equation modeling. To measure the effective factors on students sportsmanship behaviors, a likert scale type questionnaire, ranging from 1 'strongly disagree' to 5 'strongly agree' was applied on a face-to-face basis. The sportsmanship questionnaire about sportsmanship was composed of 45 questions. In the statistical analysis obtained data, SPSS and LISREL software were used. The results of the analyses indicate that while "game perspective" is the most effective factor on students' sportsmanship behavior, the factors; "opponent", "rules", and "injurious acts" are also statistically significant.

**Keywords:** Sport; Sportsmanship; Fair Play; University Students

## Introduction

Although sportsmanship in ordinary language is perceived as a psychological structure named sports lover (Perry et al., 2015), the widespread understanding of the concept is usually concerned with the normative standards in sports which are about social and moral relations (Stornes and Bru, 2002).

The sportsmanship concept which is used to express ethical ideals in sports is defined in various ways from different points of view. Shields and Bredemeier (1995) define sportsmanship as the virtue of adjusting the competitive game motivation under the light of ethical objectives. Sportsmanship involves attributes such as integrity, patience, self-control, fairness, forgiveness, generosity and politeness (Keating, 2007). Definitions regarding the content of sportsmanship are generally associated with concrete behaviors, which is the case observed in scale studies conducted on sportsmanship (Koç, 2017).

According to Feezell (1986), sportsmanship is a way of understanding the importance of victory, achievement and the play-spirit and seeing the play as a frivolity when the play is competitive. For Arnold (1984), sportsmanship is characterized by magnanimity, good humor, respect, politeness, affability, compassion, altruism, and generosity. The good sportsperson keeps to the letter and the spirit of the game and never detracts from the virtues listed. Vallerand and Losier (1994) have adopted a social-psychological view of sportsmanship that separates the

latter from aggression. The multidimensional definition of sportsmanship underlines the content of sportsmanship behavior and orientations. According to Vallerand et al. (1997), the multidimensional construct of sportsmanship consists of five clear and practical dimensions: 1) Full commitment to sport participation; 2) Respect for social conventions; 3) Respect and concern for the rules and officials; 4) True respect and concern for the opponent; 5) Negative approach toward sportsmanship.

How an individual defines the ethical standards or the concept of sportsmanship is directly related to his education level. Nowadays, it is seen that sports, as educational tool, is used by all segments of society. To obtain the necessary efficiency from the sports which is seen as an education is possible to adhere to sports ethics, ethical values, philosophical principles and rules from the early ages up to the present day (Şahin, 2015; Pehlivan, 2004). Physical education, sports teachers, and trainers are perceived as the most important models in the formation of sports morality (Bolter et al., 2017). In this sense, students who are trained in the field of sports science are expected to know these principles and rules closely and to adopt them at every stage of their lives as a way of life by the requirement of their education. Well, is it really the case? This is worth to research. How much do the sports experts and institutions that can be accepted as an authority of sports know the understanding of sportsmanship? Understanding the philosophy of sportsmanship concept is just a beginning and never enough. The main thing is that the individual has added the philosophy of sportsmanship to his life and

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has given direction to his life in this line. The hypotheses of the study are given below;

- a. Attitudes of students for rules have a significant effect on their sportive behaviors.
- b. Attitudes of students for injurious acts have a significant effect on their sportive behaviors.
- c. Attitudes of students for opponent have a significant effect on their sportive behaviors.
- d. Attitudes of students for game perspective have a significant effect on their sportive behaviors.

In this context, the aim of the current study was to examine the sportsmanship behaviors of undergraduate students in the field of sport and to reveal the current situation.

## Method

### Sample and Measurement tool

The sample of this study consisted of 400 students attending the School of Physical Education and Sports of Afyon Kocatepe University between the dates 15 March -15 April 2017. However, eighteen questionnaires was unfilled and/ or wrongly filled. For this reason, 382 questionnaires [18-26 age (23.80±4.65 years), 51.8 % (n: 198) men and 48.2 % (n: 184) women] were included to the statistical analysis.

To measure the effective factors on students Sportive Behaviors, a Likert scale type questionnaire, ranging from 1 'strongly disagree' to 5 'strongly agree' was applied on a face-to-face basis. In keeping with Vallerand et al.'s (1996, 1997) approach, (including 71 items) to examine sportsmanship orientations, the final 33 items obtained from the study of Perry et al. (2015) have commonly formed this questionnaire. The sportsmanship questionnaire was composed of 45 questions. Eight questions were related to demographic characteristics and 37 questions were related to their sportive behaviors. Because of some unfilled and wrong filled questionnaires, the statistical analyses were applied over 382 questionnaires. SPSS and LISREL software programs were used to perform the statistical analysis.

### Structural Equation Model (SEM)

SEM is a statistical technique for testing and estimating causal relationships using a combination of statistical

data and qualitative causal assumptions. It is used in social, behavioral and educational sciences, namely, psychology, biology, economy, marketing, and medicine. SEM is a comprehensive statistical method used in testing hypotheses about causal relationships among observed and unobserved (latent) variables and has proved useful in solving problems in formulating theoretical constructions (Schumacker and Lomax, 2004; Reisinger and Turner, 1999; Raykov and Marcoulides, 2006; Yilmaz, 2004). SEM also can expand the explanatory ability and statistical efficiency for model testing with a single comprehensive method (Pang, 1996). It has the potential for decision support modeling, it is probably most useful for theory testing, which is a key phase in developing models (For SEM and LISREL see Byrne, 1998; Cheng, 2001; Cudeck et al., 2000; Hayduk, 1987; Jöreskog and Sörbom, 2001).

There is more than one goodness of fit index for Structural Equation Model. The most commonly used test statistics in SEM are likelihood ratio chi-square statistics ( $\chi^2$ ), root mean square error of approximation statistics (RMSEA), the goodness of fit index statistics (GFI) and adjusted goodness of fit index statistics (AGFI). If the value of  $\{\chi^2 / df\}$  is less than 3 it means that there is an acceptable fit (Saracli et al., 2014). Limits and the calculated values for the Structural model are also given in Table 2.

## Results

As a result of Explanatory Factor Analysis (EFA), 10 items have subtracted from the scale because of getting loadings in a wrong factor and forming a separate factor combining with wrong items theoretically. Finally, analyses are applied over 27 items for five factors named as: Rules (XA) Injurious Acts (XB) Opponent (XC) Game Perspective (XD) and Sportive Behavior (Y). These five factors also explained the 62.295% of the total variance. The factor loadings, Eigenvalues and Cronbach's Alpha values of each factor are given in Table 2. The total Cronbach's Alpha value of the scale which consists of 27 items is calculated as 0.944 which is statistically one of the indicators that the reliability of the scale is well enough. Therefore, the hypotheses given in Table 1 were developed to investigate, which factors effects the sportive behaviors of students.

**Table 1.**

*Hypotheses Tested by the Attitudes of students*

H <sub>1</sub>	Attitudes of students for Rules have a significant effect on their Sportive Behaviors.
H <sub>2</sub>	Attitudes of students for Injurious Acts have a significant effect on their Sportive Behaviors.
H <sub>3</sub>	Attitudes of students for Opponent have a significant effect on their Sportive Behaviors.
H <sub>4</sub>	Attitudes of students for Game Perspective have a significant effect on their Sportive Behaviors.

The results given in Table 2 indicate that within the factor *Rules*, the item XA2, "I never break the rules of

my sport" is the most effective one with the loading of 0.792. Similarly, XB1 "It is wrong to wind up an opponent

to inhibit their performance” in factor *Injurious Acts* with same loading value, XC1 “I stop the game when the opponent is injured” in factor *Opponent* with the loading of 0.765, XD1 “I do not believe in winning at all costs” in

factor *Game Perspective* with the loading of 0.732 and Y1 “I always congratulate my opponent on his or her victory” in factor *Sportive Behaviors* with the loading of 0.770 found as the most effective items.

**Table 2.**  
*Results of Explanatory Factor Analysis*

Factors		Loadings	Eigenvalues	% of Variance	$\alpha$
XA	RULES				
XA1	I always obey the rules of my sport.	.784			
XA2	I never break the rules of my sport.	.792			
XA3	I abide by all of the rules in my sport	.762	1.770	6.556	.887
XA4	I would never cheat in order to win.	.717			
XA5	I would not bend the rules to win.	.575			
XA6	It is wrong to test the boundaries to see what I can get away with.	.522			
XB	INJURIOUS ACTS				
XB1	It is wrong to wind up an opponent to inhibit their performance.	.792			
XB2	It is wrong to intimidate an opponent.	.747	1.573	5.828	.747
XB3	I never behave solecistic even if my opponent provokes	.607			
XB4	I would not intentionally injure an opponent to gain the advantage	.580			
XB5	I don't debate with the fans of the opponent.	.490			
XC	OPPONENT				
XC1	I stop the game when the opponent is injured.	.765	1.061	3.930	.818
XC2	I refrain from tactics that could injure my opponent.	.715			
XC3	I would never intentionally foul an opponent.	.501			
XD	GAME PERSPECTIVE				
XD1	I do not believe in winning at all costs.	.732			
XD2	Winning is not always the most important part of the sport.	.618	1.032	3.821	.778
XD3	It is more important to play fair than to win.	.589			
XD4	It is more important to know what is right than to win.	.487			
Y	SPORTIVE BEHAVIOR				
Y1	I always congratulate my opponent on his or her victory.	.770			
Y2	I would go out of my way to congratulate an opponent.	.754			
Y3	At times I will acknowledge my opponent's good play.	.725			
Y4	I truly respect a worthy opponent.	.702	11.383	42.160	.903
Y5	I would go out of my way to help an injured opponent.	.609			
Y6	I consider myself a good loser.	.555			
Y7	It is more important to do what is right than to win.	.543			
Y8	I would rather be respected for my actions than merely winning.	.536			
Y9	I would rather lose with grace than win with dishonesty.	.440			

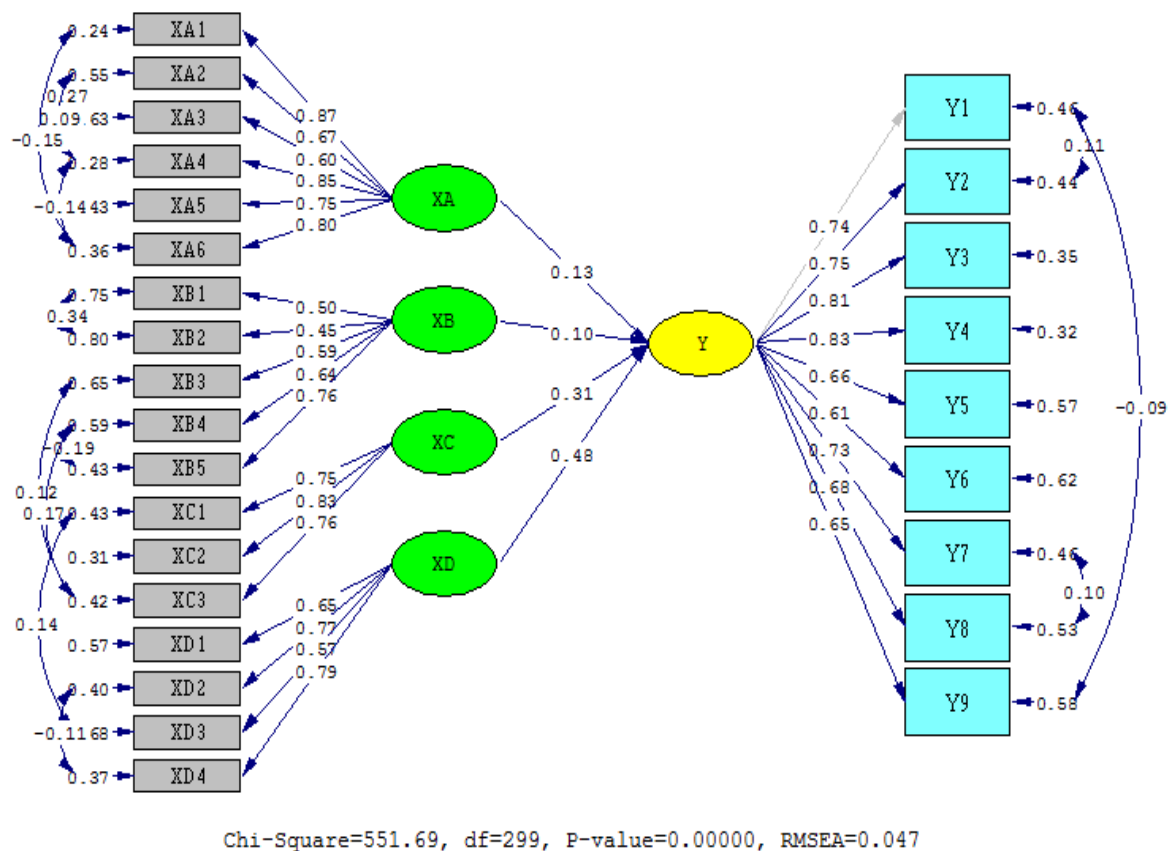


Figure 1. Structural Model for Sportive Behavior

The structural model is given in Figure 1. It is statistically significant for the goodness of fit indices given in Table 3. Besides the  $\chi^2/df = 1.845 < 3$  is also one of the other indicators of the model fit. As it can be seen from Figure 1, some modifications related to the suggestions of the software are applied by setting the error covariances between the variables free to obtain statistically the best and the most significant model.

Table 3. The Goodness of Fit Indices for the Structural Model

Criteria	Perfect Fitness	Acceptable Fitness	Model
RMSEA	$0 < RMSEA < 0.05$	$0.05 \leq RMSEA \leq 0.10$	0.047
NFI	$0.95 \leq NFI \leq 1$	$0.90 \leq NFI \leq 0.95$	0.97
NNFI	$0.97 \leq NNFI \leq 1$	$0.95 \leq NNFI \leq 0.97$	0.99
CFI	$0.97 \leq CFI \leq 1$	$0.95 \leq CFI \leq 0.97$	0.99
GFI	$0.95 \leq GFI \leq 1$	$0.90 \leq GFI \leq 0.95$	0.90
AGFI	$0.90 \leq AGFI \leq 1$	$0.85 \leq AGFI \leq 0.90$	0.88

(Source: Schermelleh-Engel, Moosbrugger and Müller, 2003). (RMSEA: Root Mean Square Error of Approximation, NFI: Normed Fit Index, NNFI: Non-Normed Fit Index, CFI: Comparative Fit Index, GFI: Goodness of Fit Index, AGFI: Adjusted Goodness of Fit Index)

The results of the SEM indicate that Game Perspective (XD) is the most effective factor in students Sportive Behavior (Y) with the coefficient of 0.48. Effects of the factors; Opponent (XC), Rules (XA), and Injurious Acts (XB) are also statistically significant with the coefficients of 0.31, 0.13, and 0.10, respectively.

Differing from the results of the EFA, because of the modifications made on the model, according the results of the SEM: within the factor *Rules*, the item XA1 “I always obey the rules of my sport”; within the factor *Injurious Acts*, the item XB5 “I don’t debate with the fans of opponent”; within the factor *Opponent*, the item XC2 “I refrain from tactics that could injure my opponent.”; within the factor *Game Perspective*, the item XD4 “It is more important to do what is right than to win.” and within the factor *Sportive Behaviors*, the item Y4 “I truly respect a worthy opponent.” found the most effective items with the coefficients of 0.87, 0.76, 0.83, 0.79 and 0.83 respectively.

The results of the hypotheses testing related to the structural model in Figure 1 and standardized parameter estimates are given in Table 4.

**Table 4:**  
Standardized parameter estimate values, *t* values and hypotheses

Hypotheses	Paths	Standardized parameter estimates	<i>t</i> values	Results
H <sub>1</sub>	(XA)→(Y)	0.13	2.45	Confirmed
H <sub>2</sub>	(XB)→(Y)	0.10	1.96	Confirmed
H <sub>3</sub>	(XC)→(Y)	0.31	4.68	Confirmed
H <sub>4</sub>	(XD)→(Y)	0.48	6.87	Confirmed
Structural Equations				
$Y = 0.13*XA + 0.098*XB + 0.31*XC + 0.48*XD$			$(R^2=0.81)$	

Table 4. Indicates that the relations between Rules (XA), Injurious Acts (XB), Opponent (XC), Game Perspective (XD) and Sportive Behavior (Y) are statistically significant and all of the alternative hypotheses are confirmed.

## Discussion

Like every game, sports are applied in accordance with pre-determined rules and principles. Sporting activity is carried out in accordance with these principles. It must not be forgotten that to internalize a sport and want to do it requires accepting all its rules from the beginning, obeying them, not opposing but defending them. It was detected in this study which was conducted to examine the sporting behaviors of the students in the field of sports sciences that one of the factors influencing sportsmanship behavior is rule compliance. In the Council of Europe's European Cultural Agreement, it is mentioned that the importance of obeying the rules in sportsmanship behaviors is required because of the principles like "respecting the decisions of the arbitrator even if it is not in accordance with his interest and judgment, helping the referees make the right decisions, and being discreet and cautious". They pointed out that participants should decide whether or not to accept referee faults that give them unfair profits and that those with sports ethics will not gain an unfair advantage by ignoring these mistakes. However, in spite of these expressions, the written and unwritten rules in the sports, playing with fouls or behaving as exposed to fouls are taught and practiced to the sportsmen as a part the tactical understanding of coaches (Yildiran, 2004). Namely, it demonstrates itself as the struggles of the concept of sportsmanship meaning the individuals obey the rules even under conditions that become difficult during the competition, not accepting unfair advantages in order not to disrupt the equal opportunity, not taking advantage of unfair disadvantages of the opponents, seeing their opponents as an individual and a friend with equivalent rights that allows the game to happen, not as an enemy, having a high opinion of their opponents (Türkmen and Varol, 2015; Cecchini et al., 2007). But the softness of the rules in sports organizations is perceived as a problem. And the other factor contributing to this problem is expressed as substandard and inconsistent management. If the referees

in the sports organization are extremely legally unsuccessful in punishing aggression, aggression becomes a positive reinforcement and recurring possibility increases (Tiryaki, 2002). For this reason, respect for decisions even made against the emergence of sportsmanship behavior should be taken as a basis. It should be taken into consideration that anyone who implements rules, like everyone else, can also make mistakes. Renson (2009) stated that maintaining the game by respecting the rules and respecting those who practice the rules even in the wrong decision will contribute to the athlete in many ways.

Another finding from the study is that the attitudes of students towards deliberate behaviors make the impact on sporting behavior. Deliberate behavior in sports usually demonstrates itself in the dimension of aggression. Such aggression not only may reveal itself in a word or with a glance but also with behavior which requires physical contact. Aggressive behavior in sports is known as the type of aggression including instrumental aggression or hostility (Gumus et al., 2014). Especially in the sports branches requiring mutual contact, requirements which need to be insightful, for the benefit of the team, arising from the particular situation in the sports mean to hostile aggression with the intention of violating the rules and harming the opponents (Tiryaki, 2000). In both cases, deliberate behavior is the issue (Matthews and Channon, 2017). Almost in all sports organizations, violence content is encountered depending on deliberate behavior. It can be shown as the reason for this that the boundaries between acceptable and unacceptable foul behaviors are not always very sharp in the game which sometimes can be ruthless (Ziyagil et al., 2012). However, the factor separating the game with the foul from the hard game is the deliberate behavior based on the game with foul, that is, violence, sneaky, treacherous, and malicious and intentionally behaviors (Brink, 1995 as cited in Sacks et al., 2003). Deliberate behavior in sports is learned as the other behaviors as expressed in the social learning model (Brewer and Crano, 1994). Behaviors of the individual, continuously interacted with the environment,

are affected by the environment. Therefore, it can be said that deliberate behavior is learned by taking as modeling. In this context, behaviors of the modeled athletes and visual media contrary to the philosophy of sportsmanship created in public are important not to be ignored and a matter to be emphasized. Especially, imitation of the athletes at small ages of every move of star athletes by taking them as an example gives additional responsibilities to the professional athletes concerning the sportsmanship behavior. As well as the professional athletes, it should not be forgotten that parents, coaches, teachers or teammates who adopt the aggressive game style may also be role models for young athletes and they should shape their behaviors in this direction.

Another factor impacting the sportsmanship behavior of physical education and sports students is their attitude towards the opponent. In sports competitions, most of the time, competitors are perceived as “the other” (Erdemli, 2006). This situation, which occurs naturally in sports, is often a source of contradictory developments of the sport. Sports significantly depends on the body, but it will be wrong to reduce the sport to only a body activity. It is necessary to consider the sporting phenomenon over the body’s ability and power limits. When the concept of sports is only evaluated in terms of physical strength and ability, in the past and today, it has been observed what kinds of destructions and damages have been caused. The term “homo quadratos” used to mean four-cornered people in the ancient Roman period was used to describe athletes who were physically strong but lost their values as human beings (Erdemli, 2006). Beyond a determination, this statement expresses a situation that needs to be kept away and scorn and teasing against those who live like that. Today, as it has been in the past, the moral dimension of sport is sometimes assessed far more than physical strength, gain. This requires that the attitude towards the competitors should significantly be examined. Especially in the athletes having ego orientation, at any cost, thought of domination over the opponent team is common (Goldstein and Iso-Ahola, 2006; Murphy, 1999). The most important factor in the formation of this thought is that the opponent is perceived as “the other”. However, it is important to see the competitor as an element that must be absolutely present for the existence of the game and a part of the game. In the analysis of sportsmanship ideals, the respect of the opponent was emphasized by stepping on the principles such as the refusal of taking advantage of the bad situation

of the competitor, the struggle for eliminating the unfair situations the rival will be exposed to, being respectful to rival sportsmen and the teams as much as to his teammates (Aripinar and Donuk, 2011). It is pointed out that it is necessary to separate the concept of the sportsmanship and respect (Boixados et al., 2004), to observe the concept of the respect in the people we may call sportsmen (Vidoni and Ward, 2009), and respect not only for the opponents but also for the game and the other components of the game. There are some studies in which the principle of the sportsmanship can only be mentioned in this way (Butcher and Schneider, 2007; Harvey et al., 2014; Gencer, Eroglu and Yildirim, 2019; Gumus, 2019; Gumus et al., 2016).

The most important factor impacting on the sportive behavior is the point of view of the game with the coefficient of 0.48. The perceptions of the individuals concerning the concept of sportsmanship are directly related to their attitudes towards the game or the match. As defended by the Olympic principles which determined in the establishment phase of the modern Olympics, the important thing in sports organizations is not to win or lose, important thing is to participate. Sportsmanship culture requires this perspective. As stated in the H4 hypothesis, the attitude of the students toward the general view of the game has a significant effect on the form of sportive behavior. Therefore, either athletes or followers need to approach with this philosophy to sports organizations. Namely, they need to shape their perspective regarding the game in this direction. Thus, Simon (2018) indicated that one of the most important factors impacting sporting behavior is how the people perceived the game and activity. On the other hand, Boixados et al. (2004) emphasized in the conducted study that sportsmanship is directly related to the attitude concerning the game. Another factor that affects sportsmanship is the age of participation in the sport. Pennington (2017) indicated that as the professionalism of the sports has increased, sports perspective changes, and thus, sportsmanship has increased.

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## **La investigación de los comportamientos deportivos de los estudiantes universitarios**

### **Resumen**

El objetivo del presente estudio fue examinar los factores efectivos sobre el comportamiento deportivo de los estudiantes universitarios. Con este propósito, se examinaron las actitudes de los estudiantes respecto a las reglas, los actos perju-  
diciales, la perspectiva del juego del oponente y los comportamientos de deportividad, y los efectos de estos factores se modelaron mediante el modelado de ecuaciones estructurales. Para medir los factores efectivos en los comportamientos de deportividad de los estudiantes, se aplicó un cuestionario tipo escala tipo Likert, que varía de 1 “totalmente en des-

acuerdo” a 5 “totalmente de acuerdo” en persona. El cuestionario de deportividad sobre deportividad estaba compuesto por 45 preguntas. En el análisis estadístico de los datos obtenidos, se utilizaron el software SPSS y LISREL. Los resultados de los análisis indican que si bien la “perspectiva del juego” es el factor más efectivo en el comportamiento deportivo de los estudiantes, los factores; “Oponente”, “reglas” y “actos nocivos” también son estadísticamente significativos.

**Palabras clave:** deporte; deportividad; juego limpio; estudiantes universitarios

### A investigação do comportamento esportivo de estudantes universitários

#### Resumo

O objetivo do presente estudo foi examinar os fatores efetivos no comportamento esportivo de universitários. Para tanto, foram examinadas as atitudes dos alunos em relação a regras, atos prejudiciais, a perspectiva de jogo do adversário e o comportamento esportivo, e os efeitos desses fatores foram modelados através da modelagem de equações estruturais. Para medir os fatores efetivos no comportamento esportivo dos alunos, foi aplicado um questionário da escala do tipo Likert, que varia de 1 “discordo totalmente” a 5 “concordo totalmente” pessoalmente. O questionário de espírito esportivo foi composto por 45 perguntas. Na análise estatística dos dados obtidos, foram utilizados os softwares SPSS e LISREL. Os resultados das análises indicam que, embora a “perspectiva do jogo” seja o fator mais eficaz no comportamento esportivo dos estudantes, os fatores; “Oponente”, “regras” e “atos prejudiciais” também são estatisticamente significativos.

**Palavras-chave:** esporte; espírito esportivo; jogo limpo; estudantes universitarios

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