

Original article. Determining the attitudes of university and high school students towards sports by structural equation modelling. Vol. 10, n.º 3; p. 502-529, september 2024. <https://doi.org/10.17979/sportis.2024.10.3.10705>

## **Determining the attitudes of university and high school students towards sports by structural equation modelling**

### **Determinación de las actitudes de los estudiantes universitarios y de bachillerato hacia el deporte mediante un modelo de ecuaciones estructurales**

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## Abstract

Sport is considered as an important service sector with its protective features for personal and public health, and developed countries regard sport as an indispensable part of their social life. The main purpose of this study is to assess factors affecting views of high school and university students towards sports. Within the scope of the study, the sample of the study is composed of 8546 students chosen with random method throughout Turkey. 5-point Likert scale consisting of 19 questions was used in order to determine views of the participants towards sports within the framework of the research. For analysing data, frequency analysis, reliability analysis and explanatory factor analysis were used in order to determine attitudes of students towards sports while structural equation model analyses were used in order to determine the relationship among the said factors regarding views towards sports. According to significance values of test statistics, all measured questions were statistically found significant for social- psychological attitude factor and physical mental attitude factor. According to the result of the model, there is a same-oriented and statistically significant relationship between social- psychological attitudes of students and their physical-mental attitudes. According to this result, when the views of students tend to be positive socially-psychologically towards sports, their physical-mental attitudes also become positive in parallel with this change. In line with the acquired result, it is necessary to demonstrate positive effects of sports on individuals socially, psychologically, physically and mentally in order to enable students to become more inclined to sports.

**Keywords:** sports; attitude; student; structural equation

## Resumen

El deporte se considera un importante sector de servicios por sus características protectoras de la salud personal y pública, y los países desarrollados piensan que el deporte es una parte indispensable de su vida social. El objetivo principal de este estudio es evaluar los factores que influyen en la opinión de los estudiantes de secundaria y universitarios sobre el deporte. En el marco del estudio, la muestra del mismo se compone de 8546 estudiantes elegidos con método aleatorio en toda Turquía. Se utilizó una escala Likert de 5 puntos compuesta por 19 preguntas para determinar las opiniones de los participantes sobre el deporte en el marco de la investigación. Para analizar los datos, se utilizaron el análisis de frecuencias, el análisis de fiabilidad y el análisis factorial explicativo para determinar las actitudes de los estudiantes hacia el deporte, mientras que el análisis del modelo de ecuaciones estructurales se utilizó para determinar la relación entre dichos factores con respecto a las opiniones sobre el deporte. Según los valores de significación de los estadísticos de prueba, todas las preguntas medidas resultaron estadísticamente significativas para el factor de actitud sociopsicológica y el factor de actitud mental física. Según el resultado del modelo, existe una relación estadísticamente significativa entre las actitudes sociales y psicológicas de los estudiantes y sus actitudes físicas y mentales. Según este resultado, cuando las opiniones de los estudiantes tienden a ser positivas desde el punto de vista social y psicológico hacia el deporte, sus actitudes físicas y mentales también se vuelven positivas en paralelo a este cambio. De acuerdo con el resultado obtenido, es necesario demostrar los efectos positivos del deporte en los individuos desde el punto de

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vista social, psicológico, físico y mental para que los estudiantes se inclinen más por el deporte.

**Palabras clave:** deporte; actitud; estudiante; ecuación estructural

## Introduction

Today, rapid changes and developments are also experienced in the field of sports as in all fields. At the same time, the rates of active participation in sports also vary especially in developing countries. It is also a fact that this change does not show a positive development within the context of participation in sports. Individuals may develop different attitudes towards sports and they may lean to sports because of different reasons within the society.

Our attitudes in sport occur at the end of the learning process through our lives and experiences (Tavşancıl, 2002). In line with their attitudes, individuals reflect their positive or negative emotional, cognitive and behavioural reactions towards sport. These reactions include factors such as individuals' willingness / unwillingness to do sports, intention to participate / not to participate in sports activities and seeing sports as a positive / negative experience (Gülşen & Yarayan, 2023). It can be stated that the attitude of individuals towards sports is effective on popularising sports within the society. Physical-mental attitudes of individuals who develop positive attitudes towards sports socially-physiologically can also develop in a positive way and these attitudes can encourage them to participate in sports actively.

Attitude towards sport also positively affects the quality of life positively (Çoban et al., 2020). In this context, it is necessary to demonstrate socially, physiologically, physically and mentally positive effects of sports in forming a sports culture within the culture, introducing sports into the daily life as a life philosophy and increasing active participation. It may be thought that encouraging these positive attitudes which should be gained at young ages for students especially socially and physiologically will also contribute to their physical and mental development.

## Literature review

Sport provides cognitive, emotional and physical benefits. Societies practicing sports are associated with social development. Sports relaxes, gives happiness and a

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sense of achievement and also helps to avoid monotonous life (Yetim, 2000; Güçlü, 2005). Children who play sports develop personal and social skills and a sense of responsibility. Physical activities positively affect the growth and development of 11-12 year old children (Koç, 2005; Soğat, 2007). Sports for children are important in terms of forming habits at an early age (Mengütay, 2005). A positive attitude towards physical education and physical activity should be adopted during school years (Stelzer et al., 2004).

Factors affecting participation in physical activities include time management, health benefits, social interaction, beauty and physical fitness. Factors such as gender, family involvement and income level are also among these reasons (Hausenblas et al., 2004; Garcia et al., 2009; Tergerson & King, 2002).

Participation in sports activities positively affects the developmental characteristics of people in many aspects as a part of social life, and at this point, it is considered an important issue to develop positive attitudes towards sports regardless of gender (Varol, 2017). In the studies conducted on this subject, it was generally determined that men had more positive attitudes towards sports than women (Kılıç et al., 2018; Hekim & Tokgöz, 2017; Dağdemir, 2018; Kaya-Sarıdede, 2018).

The factors affecting the sport preferences of middle and high school students and the reasons for their participation have been revealed in many different research studies. While basketball, cycling, football, swimming, skating and volleyball are preferred in middle school, aerobics, dance, weight lifting and martial arts are among the favourite activities in high school (Kim et al., 2022). When the influencing factors were evaluated in these studies, concerns about the negative impact on the lessons, school infrastructure, time constraints and lack of family support were found (Greenwood et al., 2001; Zeng et al., 2011; Akgül et al., 2012; Onay Özkaya & Güzel, 2006). In a study conducted on high school students, it was stated that girls' purpose of participating in sports activities was social and aesthetic-based, while boys focused on physical development (Yıldıran et al., 1996).

In a study conducted on undergraduate students of Sultan Qaboos University, it was found that students did sports for reasons such as health, social experience and competition (Filiz, 2010; Zayed et al., 2004).

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In the study conducted by Zeng et al. (2011), it was observed that 9<sup>th</sup>-12<sup>th</sup> grade students exhibited similar positive attitudes towards physical education activities. In Arabaci's (2009) study, it was found that middle school students exhibited more positive attitudes than high school students, and boys showed more positive attitudes than girls. In Eraslan's (2015) study, no difference in attitude was found according to gender. In the study of Tomik et al. (2012) in Poland, it was observed that men had more positive attitudes towards physical education and sports.

In the study conducted by Khan et al. (2012) in Pakistan, it was found that university students had a positive attitude towards physical education. In Tyagi Kumar and Kumar's (2013) study, it was concluded that men had a more positive attitude towards physical activities. Mohammad et al. (2011) found that university students have a positive attitude towards sports and physical education. In Taşmektepligil et al.'s (2006) study, it was stated that students generally liked physical education. In Ergül's (2008) study, it was revealed that men are more prone to sports recreation activities.

In Singh's (2013) study, it was observed that high school students had a positive attitude towards physical education class, while students with negative health behaviours enjoyed the class less. In Eraslan's (2015) study, it was observed that the attitudes of children belonging to families engaged in physical education were more positive. In Tomik's (2007) study, it was found that the attitudes of students who were members of school sports clubs were more positive. In Kotan et al.'s (2009) study, it is stated that the education and income level of the family affects the child's participation in sports. In the study of Amman et al. (2000), it is stated that parents who are interested in sports encourage their children to do sports and the level of education of parents is effective in doing sports.

It is stated that socio-economic level affects sports participation in societies and children of middle and high income families are more active in sportive activities (Larsen et al., 2000; Seabra et al., 2007). Koca et al. (2005) found that students had positive attitudes towards physical education and these attitudes were based on academic achievement. In the study of Li et al. (2012), it was found that university students exhibited positive attitudes towards physical education and this attitude was associated with out-of-school physical activity.

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In the study conducted by Bulgu and Akcan (2003), it was determined that the presence of sports practitioners in the family and peer groups and the availability of sports facilities affect young people to do sports. Legesse et al. (2013) suggested that environments that are not suitable for the curriculum and lack of self-perception negatively affect students' attitudes towards sports. Sit and Lindner (2006) found that students participate in sports and physical activities for fun, physical fitness, friendship and skill development. Sivrikaya and Pehlivan (2015) found that high fees and time constraints of sports facilities negatively affect students' tendency to do sports. Yıldırım et al. (2006) found that the reasons for students to participate in sports activities include earning money, health and social environment.

In a study conducted by Salehnia et al. (2012) on university students in Iran, it was found that attitudes towards sports did not vary according to marital status, sports experience, monthly income and family size. In a study conducted by Kangalgil et al. (2006) on high school students, it was determined that boys had higher attitudes than girls and certified athletes had higher attitudes than non-certified athletes.

In Güllü et al.'s (2009) study, it was determined that high school students' attitudes towards physical education course differed according to factors such as gender, class, school type, parental education level, course participation, sports habits and club membership. It was found that the attitudes of male students and students with sports habits were more positive. In Mirsafian's (2014) study, it was emphasized that Iranian university students' attitudes towards sports and exercise should be regulated based on gender-based behavioural differences.

## **Purpose**

The main purpose of this study is to examine the factors affecting views of high school and university students towards sports. Within the framework of the research, the views of 8546 individuals in total through face-to-face interview, e-mail and surveys via mail were gathered regarding sports.

## **Scope**

The scope of the research consists of 56 provinces in Turkey where sports activities are carried out intensively. While determining these provinces, the decision

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was made on the basis of statistical data on sports activities published by the Ministry of Youth and Sports of the Republic of Turkey and TURKSTAT.

## Method

A 5-point Likert scale consisting of 19 questions was used for the research. Different expert groups were consulted in the preparation of the questionnaire, and different high schools and universities providing education in the field of sports sciences in six major cities of Turkey "Istanbul, Ankara, Izmir, Sakarya, Elazığ and Antalya" were preferred for the pre-test. In this sample of 287 participants, there were 171 male and 116 female participants. The duration of the research was 73 days. As a result of the analysis of the data, Cronbach's alpha reliability coefficient was determined as 0.892, which is above the expected value.

A total of 8546 individuals with different demographic characteristics participated in the research. A test was carried out to measure the validity and reliability of the data obtained from these participants, and the Cronbach alpha reliability coefficient was calculated as 0.909 after the test. This value was found to be quite high when compared to other studies in the literature similar to this study.

According to the results of factor analysis, 19 questions in the scale were grouped under 2 factors in total. These dimensions are named as social-psychological attitude and physical-mental attitude. Structural equation modelling technique was applied to analyse the latent structure between the two dimensions defined in this way. In this model, it was determined that the social-psychological attitude and the physical-mental attitude were bidirectionally related to each other.

When the method used in the studies conducted by Schermelleh-Engel et al., (2003) and Tarka (2018) is compared with the method used in this study, it is observed that the degree of fit of the model for the structural equation model we created in this study is extremely high.

Frequency analysis, reliability analysis, explanatory factor analysis and structural equation model analyses were used to evaluate the students' attitudes towards sports (Maiano et al., 2013). According to the significance values of the test statistics, all the measured questions were found to be statistically significant for the social-

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psychological attitude factor and the physical mental attitude factor (Ajzen & Fishbein, 2005).

Structural equation modelling was used to determine the relational structure between these factors related to sporting views (Tena et al., 2020).

Looking at the structural equation model fit indices, it is seen that this study has been created very accurately (Peugh & Feldon, 2020; Shi et al., 2019). Since the fit indices are in the desired value ranges, the established model has been found to be a suitable model for the analysis.

## Findings and analysis

**Table 1.** Frequency analysis results

Variable	Group	Frequency	Frequency %
Age	14	57	0.67
	15	1836	21.48
	16	2241	26.22
	17	2187	25.59
	18	1752	20.50
	19	366	4.28
	20	101	1.19
	21	7	0.08
	51	1	0.01
Gender	Male	4146	48.51
	Female	4400	51.49
Classroom	1	2029	23.74
	2	2159	25.26
	3	2024	23.68
	4	1683	19.70
Number of persons in family	1	1	0.01
	2	6	0.07
	3	306	3.58
	4	1608	18.81
	5	2605	30.48
	6	1831	21.43
	7	933	10.92
	8	878	10.27
	9	296	3.47
	10	40	0.47
	11	40	0.47



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	12	6	0.07
Income	0-499	162	1.89
	500-999	572	6.70
	1000-1499	830	9.72
	1500-1999	1350	15.79
	2000-2499	2145	25.10
	2500 and over	3487	40.81
Education of the father	Primary	1071	12.54
	Secondary	3323	38.88
	High	2325	27.20
	Bachelors	1512	17.69
	Master	266	3.11
	Post-graduate	49	0.58
Education of the mother	Primary	3114	36.44
	Secondary	2888	33.79
	High	1010	11.82
	Bachelors	1359	15.90
	Master	168	1.96
	Post-graduate	8	0.09

In Table 1, frequency analysis results applied to examine demographical features of the participants are shown. Frequency and percentage values regarding various features of the participants such as gender, level of income, class, number of family members and educational statuses of parents were collected.

### Reliability and Explanatory Factor Analysis

Reliability analysis was applied for 22 questions in total which were prepared in accordance with 5-point Likert scale reflecting the views towards sports within the scope of the research. At the end of the reliability analysis, Cronbach alpha coefficient of the questionnaire was calculated as 0.909. According to this result, it was determined that almost 91% of the questionnaire questions were reliable and this rate was high. When the questions taking place within the questionnaire were removed, 3 questions were removed from the analysis due to the fact that Cronbach alpha coefficient would decrease significantly.

Explanatory factor analysis was applied in order to determine latent groups among the questions taking place in sports attitude scale and to reduce number of dimensions.

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**Table 2.** Results of sample adequacy and sphericity test

Test Type	Value
Kaiser-Meyer-Olkin Measure	.953
Bartlett Sphericity Test Measure	0.000

In Table 2, Kaiser –Meyer and Bartlett sphericity test results which measures whether the sample is in adequate level or not are shown. It is found that the sample has 95% level adequacy due to the fact that Kaiser-Meyer statistic is 0.953. According to Bartlett sphericity test, Ho hypothesis is rejected which is formed as not having any correlation among variables ( $p < 0.05$ ). According to this result, there is a significant correlation between at least two questions and factor analysis can be applied.

**Table 3.** The results for eigenvalues and percentage of explained variance

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Variance %	Cumulative %	Total	Variance %	Cumulative %
1	7.209	37.944	37.944	7.209	37.944	37.944
2	1.375	7.235	45.179	1.375	7.235	45.179
3	0.981	5.162	50.341			
4	0.885	4.656	54.996			
5	0.765	4.028	59.024			
6	0.716	3.768	62.792			
7	0.691	3.636	66.428			
8	0.64	3.37	69.799			
9	0.626	3.295	73.094			
10	0.599	3.155	76.249			
11	0.582	3.062	79.311			
12	0.538	2.832	82.143			
13	0.53	2.791	84.934			
14	0.524	2.756	87.69			
15	0.509	2.679	90.369			
16	0.476	2.506	92.875			
17	0.455	2.392	95.267			
18	0.452	2.377	97.644			
19	0.448	2.356	100			

In Table 3, eigenvalue statistics acquired from factor analysis and variance explanation rates of each factor are given. According to factor analysis results, 19

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questions taking place within the questionnaire are gathered under 2 factors whose eigenvalues are higher than 1.

**Table 4.** Rotated component matrix results

Item	Component	
	1	2
s18	.681	
s11	.660	
s17	.630	
s10	.629	
s19	.628	
s15	.617	
s12	.603	
s16	.593	
s14	.577	
s13	.550	
s3		.689
s5		.680
s6		.640
s7		.632
s4		.625
s1		.617
s2		.617
s8		.597
s9		.541

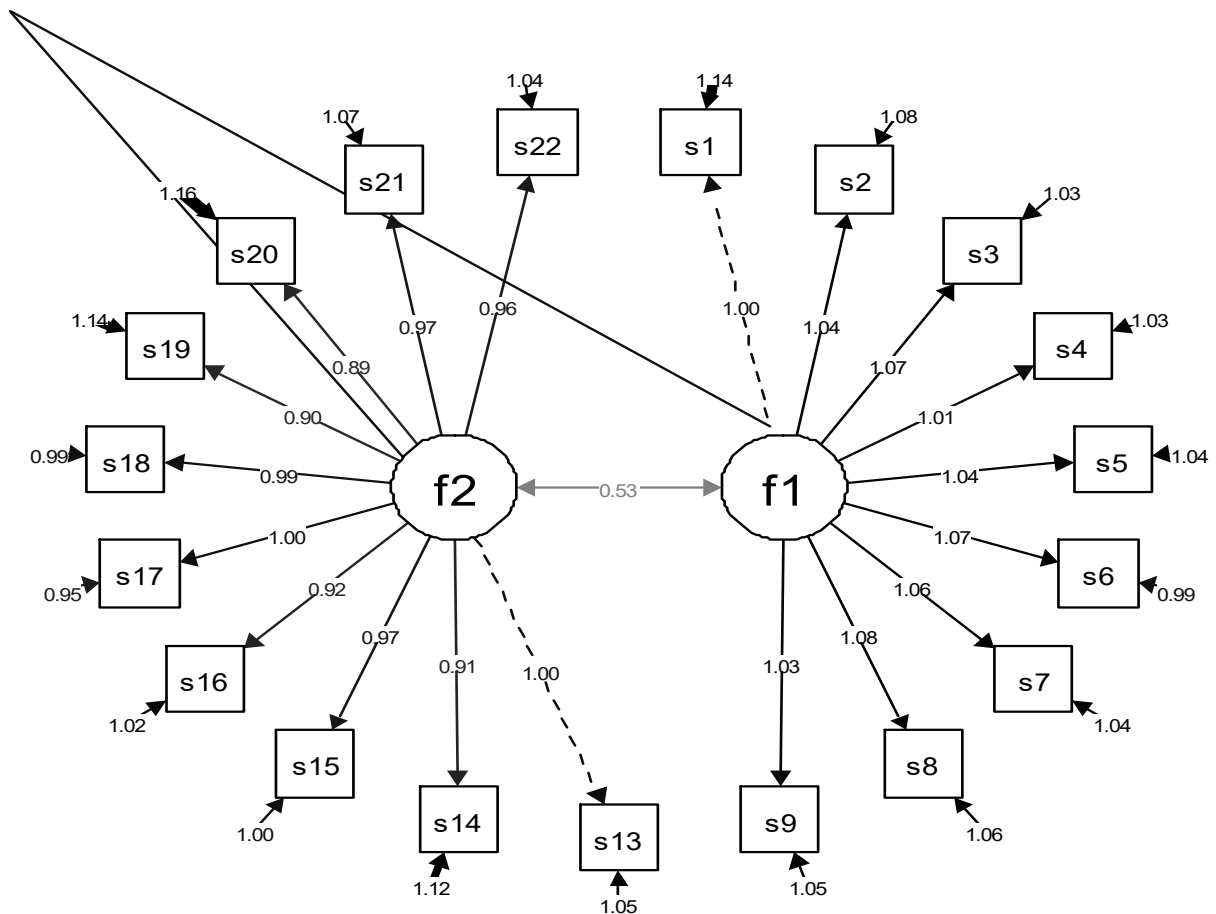
In Table 4, rotated component matrix results acquired from factor analysis are shown. In the rotated component matrix, factor loads between the acquired factors and questions are shown. According to this result, there are 10 questions in total under 1<sup>st</sup> factor and 9 questions in total under 2<sup>nd</sup> factor. These factors are called social-physiological attitude and physical-mental attitude depending on the questions aggregated within their own body.

### Structural equation model

At the end of the factor analysis, mainly two factors defining views of students towards sports; that is, two latent variables are determined. These are described as social-physiological attitudes explaining positive views of students towards sports;

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socially and physiologically and physical-mental attitudes reflecting positive views of students towards sports physically and mentally, respectively. Structural equation modelling technique was applied in order to analyse the latent structure between these two factors as defined above.



**Figure 1.** Graphical representation for structural equation model

In Figure 1, the graphic expressing relations among latent factors and the structure under the related factors of the measured questionnaire questions is shown. According to this graphic, social-physiological attitude and physical-mental attitude are connected with each other in two ways. Regression coefficients calculated for each measured question and standard errors are shown in the Figure.

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**Table 5.** Fitness index of the model

Fitness Index	Value
Chisq/df	7.639
CFI	0.991
IFI	0.991
RFI	0.989
GFI	0.995
AGFI	0.994
NFI	0.990
RMSEA	0.032

In Table 5, fitness index values are given for the structural equation model. According to fitness indexes, all fitness indexes are within the accepted fitness limits. Fitness value of the model is pretty high due to the fact that especially CFI, IFI, RFI, GFI, AGFI and NFI indexes are close to 1.

**Table 6.** Regression coefficients results for social-psychological factor

Item	Estimate	Std.Err	Z-value	Sig.
s1	1.000	-	-	-
s2	1.037	0.014	73.303	0.000
s3	1.071	0.014	74.85	0.000
s4	1.008	0.014	73.439	0.000
s5	1.043	0.014	73.742	0.000
s6	1.069	0.014	74.661	0.000
s7	1.059	0.014	74.301	0.000
s8	1.076	0.014	74.446	0.000
s9	1.030	0.014	73.428	0.000

In Table 6, regression model composed of questions which are gathered under social-physiological attitude factor is shown. According to significance values of test statistics, all the measured questions are statistically significant for social-physiological attitude factor ( $p < 0.05$ ).

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**Table 7.** Regression results for physical-mental attitude factor

Item	Estimate	Std.Err	Z-value	Sig.
s13	1.000	-	-	-
s14	0.913	0.012	74.615	0.000
s15	0.972	0.013	77.062	0.000
s16	0.916	0.012	75.282	0.000
s17	1.003	0.013	77.616	0.000
s18	0.985	0.013	77.242	0.000
s19	0.904	0.012	74.313	0.000
s20	0.891	0.012	73.502	0.000
s21	0.965	0.013	76.174	0.000
s22	0.957	0.013	75.740	0.000

In Table 7, regression model composed of questions which are gathered under physical-mental attitude factor is shown. According to significance values of test statistics, all the measured questions are statistically significant for physical-mental attitude factor ( $p < 0.05$ ).

**Table 8.** Regression results for latent factors

Item	Estimate	Std.Err	Z-value	Sig.
F1↔ F2	0.533	0.007	74.488	0.000

In Table 7, the result of regression model describing the relationship between social-physiological attitude and physical-mental attitude is shown. This model is also called structural model. According to structural model, the said factors are in two ways and they include significant relationship statistically ( $p < 0.05$ ). According to this result, positive views towards social-physiological attitude enable positive views towards physical-mental attitude, as well.

## Discussion

Structural equation modelling was used in this study, the main purpose of which was to determine the attitudes of university and high school students towards sports. In addition, the factors affecting attitudes towards sport were also tried to be mentioned. Sports and physical activity is a very important activity for individuals to lead a healthy life. In another study conducted by Umut and Mutlutürk (2023), it is emphasised that regular exercise is very important in terms of education quality (Başar & Sarı, 2018)

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information acquisition and staying healthy. It is also known that regular sportive activity contributes to the decrease in anxiety levels, happiness and psychological well-being levels in young people (Yüceant, 2023). One of the most important effects of regular sportive activity on young people is its effect on improving or preventing anxiety and depression (Malm et al., 2019). In developed and developing countries, sport is recognised as a part of society (Çırka, 2017). It is an indisputable fact that the most important factor and basic structure in the development of a country is education and the quality of education. There are many scientific studies on the fact that individuals receiving education should be physically fit and healthy, not only in terms of knowledge. In this context, it is observed that individuals receiving high school and university education have different benefits in terms of socialisation as well as having a healthy structure by doing physical activity (Şarvan Cengiz & Delen, 2019). However, the benefits of sport are not limited to individual health and physical development. According to many research results, it is stated that sport has become an important commercial area for individuals, societies and countries (Akkaya, 2016). At this point, one issue that needs to be discussed is the importance of the economic effects of sport and the role of educational institutions in this commercial field. Sport is of great importance not only in terms of physical activity and health, but also in terms of economic development and trade. The sport industry is an important sector that contributes to the economic growth of countries and this situation also reveals that educational institutions should invest more in sport activities. In our study, this situation has been clearly demonstrated and results have been obtained with data that support the results of many researches in the field. On the other hand, the socialisation of primary, high school and university students and increasing the recognition of the countries they represent through international activities and sports activities is a different and important issue that needs to be discussed. When we examine the data of a different study that supports these results, we see that these activities contribute to the personal development of students and help them gain a global perspective (Uzun & Bolat, 2023). However, it should be noted that more research should be done on how effective such activities are and to what extent students benefit from these processes. Another important contribution of sporting activities is that they contribute to the strengthening

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of political and political relations. This finding supports the results of a study conducted by Seval and Kodaman (2015), which found that sporting activities have a political impact, and a different study conducted by Gözen and Yenel (2023), which found that student-oriented sporting activities have a political impact. In general, these findings reveal that sport is not only a means of entertainment, but can also be used as a political power. These results bring about discussions on how ethical it is to use sport as a tool in diplomatic relations between countries. In general, the study revealed the fact that the role of education and sports in the development of a country should be considered as a multidimensional concept. Studies in the field also support this view. Again, a large number of research data on these subjects clearly reveal how these two fields are intertwined with each other and how they complement each other. The individual, social and political dimensions of education and sport need to be examined in detail. Again, when we look at the results of a research conducted by Mumcu et al. (2021); it was concluded that it will support the functioning of democracy and development by raising qualified human resources. When we examine the findings of a different study conducted by Özen & Eroğlu (2022); it reveals the fact that sports can also be used for political purposes such as reinforcing the sense of national identity and pride, gaining prestige and respect in the international arena. In this context, the data of this study and the data of other studies in the field reveal that it is very important for educational institutions and governments to develop strategies by considering not only the physical benefits of sports, but also its economic and political effects. In our study, we obtained two factors in total regarding the opinions towards sport. Taking into account the loadings of these two factors obtained after factor analysis, we named them as social-physiological attitude and physical-mental attitude. We used structural equation modelling to determine the relational structure between the relevant factors. It is seen that the same method was used in the study conducted by Şentürk (2012). When we look at the fit indices of the model we used, we see that it was created quite accurately. Since these fit indices are between the desired value ranges, they are deemed appropriate for model analysis. In a different study conducted by Akyüz (2018), it is seen that he used confirmatory factor analysis for construct validity in his method, that the desired results were obtained with this method, and that he supported and confirmed



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the findings with the method used in our study. In this study, the theoretical model created with the structural equation model was confirmed with high fit indices. After the factor analysis, the questions under the relevant factors were found to be statistically significant. It was determined that there was a positive and significant relationship between students' social-physiological and physical-mental attitudes (Karagöz et al., 2016).

In this study, the relationships between these two factors were analysed using Structural Equation Modelling (SEM). The results show that sport contributes to the development of students and plays an important role in the development of educational policies. However, further research is needed to better understand the effects of these factors. Considering the political and economic dimensions of sport, it is very important to address sport policies with a holistic approach. Structural Equation Modelling (SEM) is a statistical technique used in social sciences to analyse complex relationships. SEM tests hypotheses and builds models by examining the relationships between observed (manifested) variables and latent (latent) variables. This modelling technique combines both Confirmatory Factor Analysis (CFA) and Path Analysis (Path Analysis), allowing researchers to test their theoretical models with empirical data.

When we examine the researches conducted in the field of education and sports; students' views towards sports are examined by various methods. In this study, two main factors determined by factor analysis were defined as social-physiological and physical-mental attitudes. Social-physiological attitudes refer to the positive effects of sport on increasing social interactions and improving physical health, while physical-mental attitudes refer to the positive effects of sport on mental health and academic success. In the study conducted by (Şarvan Cengiz & Delen 2019); when the effects of sports on individuals are evaluated within the framework of social-physiological and physical-mental attitudes, various studies show that these effects are comprehensive and positive. In the study conducted by (Uzun & Bolat 2023), social-physiological attitudes reveal that sports activities increase social interactions and improve physical health. These studies also indicate that sports improve students' social skills and positively affect their physical health. On the other hand, physical-mental attitudes express that sport has positive effects on mental health and academic achievement. revealed that

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sport increases students' academic performance and improves their mental flexibility. These findings support that sport contributes to both physical and mental health and strengthens social relationships. When the results of these studies and the findings obtained are examined, it is important to use the structural equation model, and the findings obtained with the structural equation model used in our study are parallel and supported by the results of this study.

In this research, at the end of the factor analysis, mainly two factors defining views of students towards sports; that is, two latent variables are determined. These are described as social-physiological attitudes explaining positive views of students towards sports; socially and physiologically and physical-mental attitudes reflecting positive views of students towards sports physically and mentally, respectively. Structural equation modelling technique was applied in order to analyse the latent structure between these two factors as defined above.

When the method used by Schermelleh-Engel et al. (2003) and Tarka (2018) was compared with the method used in this study, it was observed that the degree of fit of the structural equation model created in this study was extremely high. Frequency analysis, reliability analysis, explanatory factor analysis and structural equation modelling analyses were used to evaluate students' attitudes towards sports (Maiano et al., 2013). According to the significance values of the test statistics, it was found that all measured questions were statistically significant for the social-psychological attitude factor and the physical-mental attitude factor (Ajzen & Fishbein, 2005).

Structural equation modelling was used to determine the relational structure between these factors related to sportive views (Tena et al., 2020). Looking at the structural equation model fit indices, it is seen that this study was constructed very accurately (Peugh & Feldon, 2020; Shi et al., 2019). Since the fit indices are within the desired value ranges, the established model was found to be a model suitable for analysis.

This study reveals that positive changes in social-physiological attitudes have positive effects on physical-mental attitudes. The results of the study conducted by Güngör et al. (2019) also support the findings of this study. In this study, the importance of the social and physiological effects of sport was emphasised and this was found to

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increase students' belief in the physical and mental benefits of sport. It is seen that young people's attitudes towards sport have positive effects on positive changes. When the findings of the study conducted by Sivri and Özbek (2023) are evaluated, it is understood that they are in parallel with the results of this study. After this study, it is seen that sport has an important effect on socialisation. With this research, we can say that studies should be conducted in other fields by considering various socialisation tools. Especially studies focusing on secondary education institutions will be useful in terms of understanding the importance of sport and eliminating the socialisation problems of young individuals. Along with sports education and sports departments in universities, especially sociology departments focusing on sports-related studies will contribute to the emergence of socially beneficial results. Considering the effect of sports on the socialisation process, we believe that the sports festival organisations held regularly every year should be spread over the whole education period rather than being compressed into just a few days.

## Conclusion

Increasing industrialization, advances in the service sector and urbanization have led to major changes in the social structure. In developed countries, sport is recognized as a fundamental part of society and is seen as a measure reflecting the general state of society. While sporting activities have been intensively utilized in health services, they have also become a largely commercialized field. The political and economic importance of sport has become more complex today and is an important criterion in determining the attitudes of young people towards sport.

In this study, views of high school and university students in Turkey towards sports were evaluated. Reliability level of the applied research is pretty high. Two factors were acquired regarding views towards sports. Those factors which were acquired after the factor analysis were described as social-physiological attitudes and physical-mental attitudes in line with the aggregated questions by taking factor loads into account. Structural equation model was used in order to determine the relational structure between the said factors. When fitness indexes of structural equation model were observed, it was seen that it was formed pretty correctly. Fitness indexes are

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suitable model for the model analysis formed due to the fact that they take place between the desired value ranges.

The theoretical model constructed with structural equation modelling was validated with high fit indices. And the questions under each factor were found to be statistically significant. A positive and significant relationship was found between students' social-physiological and physical-mental attitudes. These findings indicate that the positive change in social-physiological views has a positive effect on physical-mental attitudes. By emphasizing the social and physiological effects of sports, students' beliefs in the physical and mental benefits of sports increase. These findings emphasize the positive effects of positive changes in young people's attitudes towards sports. Therefore, it is important to inform and encourage high school and university students about the benefits of sports.

Consequently, studies should be conducted in other areas by taking various socializing tools of this research, which focused on the effects of sports on socialization, into consideration. Especially studies, which focus on secondary education institutions, will help understating the importance of sports and removing socialization problems of young individuals. It can be stated that apart from school of physical education and sports at universities, particularly sociology departments' focusing on the studies regarding sports will be beneficial socially. By taking the effect of sports on socialization process into account, sports festival organizations which are carried out regularly every year should be expanded to the whole period of education terms instead of squeezing these organizations just into few days.

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