

## **Primary School Students' Sports Orientation And Engagement And Their Attitudes Toward Volleyball**

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### **Abstract**

This paper investigated the relationship between children's sports orientation and engagement and their attitudes toward volleyball. This cross-sectional and descriptive study was conducted in the academic year 2022-23. The sample consisted of 440 primary and middle school students recruited randomly from some primary and middle schools in Gölbaşı, Ankara/Türkiye. Data were collected using a personal information form, the Sport Orientation Questionnaire (SOQ), the Volleyball Attitude Scale (VAS), and the Sports Engagement Scale (SES). The results showed that gender, age, sports experience, and position affected participants' scale scores. The correlation analysis showed positive correlations between SOQ, SES, and VAS scores. The regression analysis showed significant associations between SES and VAS scores. The results confirmed the hypotheses. We must ensure to raise children's awareness of sports orientation, sports engagement, and attitudes toward volleyball. There is little research into these constructs. Therefore, this study makes significant contributions to the literature. However, further research is warranted to better understand the impact of those constructs on children.

**Keywords:** Sport orientation, Engagement, Attitude, Volleyball

## Introduction

Sports are educational and social activities that enhance individuals mentally, prepare them socially for life, and foster the development of motor skills at an appropriate level (Ölmez, 2010). Sports are activities conducted by individuals who are aware of the principles of athleticism and engage in them with a competitive mindset (Dever, 2010: 28). Students who play sports are more successful academically (Pekel, 2016). Therefore, socialization is as important as physical movement (Zorba, 2006). Sports psychologists focus on the concept of sport orientation. Orientation is a condition where individuals are anticipated to align with distinct goals and exhibit various behavioral orientations until reaching these goals (Toros, 2001: 8). Sports orientation is associated with socialization, emotion seeking, and information seeking. The pursuit of socialization is identified as a significant motivator for travel (Harman et al., 2013). While socialization-seeking is crucial for participation in sports activities, its dominance is noteworthy in various aspects of social life. It is a significant phenomenon that turns activities into important organizations due to the participation of crowds capable of fulfilling the pursuit of socialization (Çevik et al., 2019). While participants may have some control over the activities they engage in within the biological desire dimension of emotion-seeking, it can be argued that they also participate in activities that naturally arise and cannot be controlled due to uncontrollable emotion-seeking (Sznitman & Engel-Yeger, 2017). Individuals participate in sports activities driven by adrenaline, a sense of adventure, and various desires and expectations (Çevik et al., 2019). Seeking knowledge is the first activity in the process of gathering and constructing knowledge (Matusiak, 2006). When the knowledge acquired by an individual is regarded as an activity, it enables them to socialize and share experiences with other participants. Therefore, information seeking is a dimension that drives followers to activity (Pons, et al. 2006).

Sports engagement is a motivating force that reveals one's willingness to maintain one's commitment through sports participation (Williams, 2013). A lifelong sports engagement is essential for personal health and is the primary goal of physical activity specialists worldwide. This commitment affects the individual's motivation to participate in sports. Motivation for participation is evident in people's behavior, preferences for activities, their effort in physical activity, and their persistence, particularly in the face of challenges (Williams, 2013). Fitness, which is characterized by mental endurance while performing an activity, enables athletes to try to do their best at their tasks in the face of obstacles. This is when athletes give their best to perform optimally (Guillén & Martínez-Alvarado, 2013; Uluç & Akçakoyun, 2021). Determination in athletes is described as their immersion in activities, experiencing enthusiasm and excitement, drawing inspiration from their sport, taking pride in their athletic endeavors, challenging themselves or others, and attributing meaning to the sport (Guillén and Martínez-Alvarado, 2013). Internalization can be conceptualized as a focus on sports, encompassing the assimilation of sports into one's identity and the adaptation of oneself to sports. Furthermore, happiness derived from doing sports fortifies the love for the sport as long as the athlete continues their engagement in it, resulting in internalization (Guillén and Martínez-Alvarado, 2013).

Attitudes are psychologically defined as regulating both positive and negative intensity toward an object (Tavşancıl, 2002). Attitudes basically consist of three components: cognitive, affective, and behavioral. There is a continuous relationship and consistency between these components. The cognitive component manifests when people react positively to a situation or an object based on the information available. The affective component is activated when people reflect on their feelings about an object, event, or situation. The

behavioral component is defined as the physical reflection of the whole form with body language (İnceoğlu, 1993; Adıgüzel, 2020).

Researchers have focused on attitudes (İslam, 2022a, 2022b, 2023a; Öztürk Çelik & Yılmaz, 2022; Yılmaz et al., 2019; Kaplan & Bozdağ, 2022; İslam & Bayraktar, 2025), sports orientation (Çevik et al., 2019; Çiriş & Başkonuş 2021; Yılmaz et al., 2019; Turan, 2021; İslam, 2024a, 2024b, 2025), and engagement in sports (Saki & Aybek, 2023; Caz & Bardakçı, 2023; Can & Kızılet, 2023; Kayhan et al. 2020; Polat & Kaynak, 2022; Karıcı, 2021; Gökdağ, 2018; İslam, 2022d). However, no researchers have focused on sports orientation, sports engagement, and volleyball attitudes. Therefore, this is the first study to investigate children's sports orientation, sports engagement, and volleyball attitudes, three important psychological concepts. The following are the research hypotheses.

### **Research Hypotheses**

**H<sub>1</sub>:** Gender affects children's attitudes toward volleyball and their orientation toward sports activities.

**H<sub>2</sub>:** Age affects children's orientation toward sports activities.

**H<sub>3</sub>:** Sports experience affects children's sports engagement and orientation.

**H<sub>4</sub>:** Position affects children's attitudes toward volleyball.

**H<sub>5</sub>:** A positive correlation exists between children's sports engagement and orientation and their attitudes toward volleyball.

**H<sub>6</sub>:** A positive correlation exists between children's sports engagement and their attitudes toward volleyball.

### **Material and Method**

#### **Ethical Considerations**

The study was approved by the Social and Human Sciences Ethics Committee of Ordu University (01.06.2022:2022/121). Permission was obtained from the schools affiliated with the Ankara Governorship Directorate of National Education. All children were briefed on the research purpose and procedure. Informed consent was obtained from all participants. The researchers were available in case participants had questions about the data collection tools.

#### **Research Design**

This correlational study adopted a cross-sectional and descriptive research design (Büyüköztürk, 2009). The independent variables were children's sports orientation and engagement, while the dependent variable was children's attitudes toward volleyball.

#### **Research Objective**

This study investigated the relationship between children's sports orientation and engagement and their attitudes toward volleyball.

#### **Population and Sample**

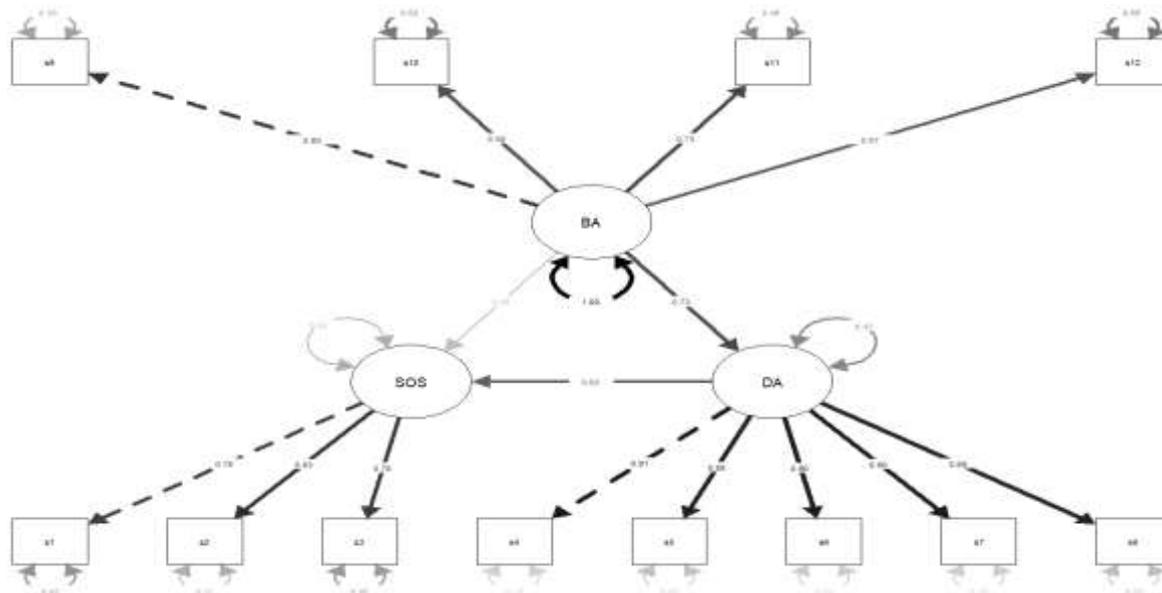
The study population consisted of all primary and middle school students from Gölbaşı, Ankara/Türkiye, in the 2022-2023 academic year. The sample consisted of 440 primary and middle school students recruited using convenience sampling, which is a nonprobability sampling method. Convenience sampling involves recruiting participants based on their easy accessibility or availability (Gürbüz & Şahin, 2015).

#### **Personal Information Form**

The researchers developed the personal information form, which consisted of items on gender, age, sports experience, position, and national athlete status.

### Sport Orientation Questionnaire (SOQ)

The Sport Orientation Questionnaire (SOQ) was developed by Pons et al. (2006) and adapted into Turkish by Çevik et al. (2019). The questionnaire consists of 12 items rated on a five-point Likert-type scale. The instrument has three subscales: socialization (Items 1, 2, and 3), emotion-seeking (Items 4, 5, 6, 7, and 8), and knowledge-seeking (Items 9, 10, 11, and 12) (Çevik et al., 2019).



**Figure 1.** Validity Analysis of Sport Orientation Questionnaire

**Table 1.** Sports Sport Orientation Questionnaire Goodness of Fit Values

Goodness of Fit Indices	Thresholds	Results
Degrees of freedom	-	51
Ki-Kare/sd	$0 \leq \text{Chi-Square/sd} \leq 2$	0.695
RMSEA	$\text{RMSA} \leq 0.08$	0.010
NFI	$0.90 \leq \text{NFI} \leq 1.00$	0.993
CFI	$0.90 \leq \text{CFI} \leq 1.00$	0.998
SRMR	$\text{SRMR} < 0.08$	0.040
GFI	$0.85 \leq \text{GFI} \leq 1.00$	0.995
AGFI	$0.85 \leq \text{AGFI} \leq 1.00$	0.993

The fit values revealed by the CFA were as follows:  $\chi^2/\text{df} = 0,695$ ,  $\text{RMSEA} = 0,010$ ;  $\text{NFI} = 0,993$ ;  $\text{CFI} = 0,998$ ;  $\text{SRMR} = 0,040$ ;  $\text{GFI} = 0,995$ , and  $\text{AGFI} = 0,993$ . The data were within the thresholds, indicating that the model had a good fit index (Table 1).

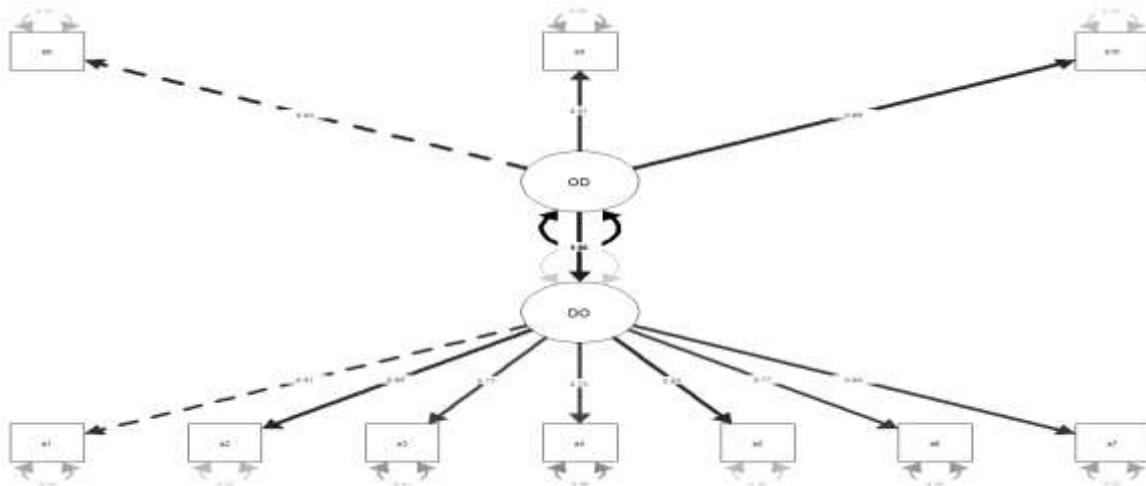
### Volleyball Attitude Scale (VAS)

The Volleyball Attitude Scale (VAS) was developed by Böke & Güllü (2020). The instrument consists of 16 items. The positive items are rated on a five-point Likert-type scale (Strongly Disagree = 1, Disagree = 2, Neutral = 3, Agree = 4, and Strongly Agree = 5). The negative items are rated on a five-point Likert-type scale (Strongly Disagree = 5, Disagree = 4, Neutral = 3, Agree = 2, and Strongly Agree = 1). The total score ranges from 16 to 80. The

scale has a variance of 0.43, internal consistency of 0.92, and construct reliability of 0.92 (Böke & Güllü, 2020).

### Sports Engagement Scale (SES)

The Sport Engagement Scale (SES), (Guillén & Martínez-Alvarado, 2014) is an adaptation of the 15-item Spanish version (Salanova et al., 2000) of the Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2003, 2004). The scale was adapted into Turkish by Kayhan et al. (2020). The Turkish version consists of ten items rated on a seven-point Likert-type scale (“1=Never” to “7=Always”). The total scale has a Cronbach’s alpha of 0.89, while the subscales “absorption” and “vigor” have Cronbach’s alpha scores of 0.91 and 0.81, respectively.



**Figure 2.** Validity Analysis of Sports Engagement Scale

**Table 2.** Sports Engagement Scale Goodness of Fit Values

Goodness of Fit Indices	Thresholds	Results
Degrees of Freedom	-	34
Chi-Square/sd	$0 \leq \text{Chi-Square/sd} \leq 2$	0.259
RMSEA	$\text{RMSA} \leq 0.08$	0.005
NFI	$0.90 \leq \text{NFI} \leq 1.00$	0.997
CFI	$0.90 \leq \text{CFI} \leq 1.00$	0.999
SRMR	$\text{SRMR} < 0.08$	0.032
GFI	$0.85 \leq \text{GFI} \leq 1.00$	0.998
AGFI	$0.85 \leq \text{AGFI} \leq 1.00$	0.996

The fit values revealed by the CFA were as follows:  $\chi^2/\text{df} = 0,259$ ,  $\text{RMSEA} = 0,005$ ;  $\text{NFI} = 0,997$ ;  $\text{CFI} = 0,999$ ;  $\text{SRMR} = 0,032$ ;  $\text{GFI} = 0,998$ , and  $\text{AGFI} = 0,996$ . The data were within the thresholds, indicating that the model had a good fit index (Table 2).

### Statistical Analysis

Descriptive statistics (frequency and percentage) were used for categorical variables (demographic characteristics). Normality was tested using the Shapiro-Wilk test. Mean  $\pm$  standard deviation ( $\bar{X} \pm \text{SS}$ ) was used for normally distributed data, while median (min-max) values were used for non-normally distributed data. The Mann-Whitney U test compared two independent groups, while the Kruskal-Wallis H test compared more than two independent groups. The results of multiple comparison tests were presented in lettered notations and medians. Spearman’s rank-difference coefficient of correlation was used to

determine the relationship between scale scores based on "<0.2 very weak correlation," "0.2-0.4 weak correlation," "0.4-0.6 moderate correlation," "0.6-0.8 strong correlation," and ">0.8 very strong correlation" (Choi et al., 2010). Multiple regression analysis was used to test the effect of variables. For two independent variables, effect size was considered low if Cohen's *d* was less than 0.30, medium effect if it was between 0.30 and 0.50, and high effect if it was above 0.50. For more than two independent variables, Cohen's *d* was considered low effect if it was less than 0.06, moderate effect if it was between 0.06 and 0.14, and high effect if it was above 0.14. The data were analyzed using the Statistical Package for Social Sciences (SPSS, v.26, IBM Inc., Chicago, IL, USA) at the significance levels of  $p < 0.05$ ,  $p < 0.01$ , and  $p < 0.001$ .

## Findings

**Table 3.** Descriptive statistics

	Male		Female		Total	
	n	%	n	%	n	%
<b>Age (year)</b>						
≤12	129	64.8	169	70.1	298	67.7
13	52	26.2	57	23.7	109	24.8
≥14	18	9.0	15	6.2	33	7.5
<b>Sports experience (year)</b>						
≤2	87	43.7	153	63.5	240	54.5
3-5	74	37.2	55	22.8	129	29.4
≥6	38	19.1	33	13.7	71	16.1
<b>Position</b>						
Libero	3	1.5	22	9.1	25	5.7
Center	11	5.5	86	35.7	97	22.0
Passer	94	47.3	74	30.7	168	38.2
Passer Anchor	33	16.6	10	4.2	43	9.8
Slammer	58	29.1	49	20.3	107	24.3
<b>Being a national athlete</b>						
Yes	8	4.0	13	5.4	21	4.8
No	191	96.0	228	94.6	419	95.2

Over half of the participants were girls (54.8%). More than half of the male participants were younger than 13 (64.8%). Less than half of the male participants had been doing sports for less than two years (43.7%). Less than half of the male participants were passers (47.3%). Eight male participants were national athletes (4%). More than half of the female participants were younger than 13 (70.1%). More than half of the female participants had been doing sports for less than two years (63.5%). Less than half of the female participants were center players (35.7%). Thirteen female participants were national athletes (5.4%) (Table 3).

**Table 4.** Scale Scores

	Median (min-max)	$\bar{X} \pm SD$
<b>VAS Total</b>	59 (16-80)	55.30±18.60
Absorption	7.8 (1-8)	6.98±1.36
Vigor	7 (1-8)	6.43±1.81
<b>SES Total</b>	7.4 (1-8)	6.81±1.43
Socialization	11 (3-15)	11.10±2.80
Emotion-seeking	22 (5-25)	20.75±4.91
Information-seeking	13 (4-20)	13.38±3.87

<b>SOQ Total</b>	47 (12-60)	45.23±10.20
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Participants had a total mean VAS score of 55.30±18.60. They had a total mean SES score of 6.81±1.43. They had a mean SES “absorption” and “vigor” score of 6.98±1.36 and 6.43±1.81, respectively. They had a total mean SOQ score of 45.23±10.20. They had a mean SOQ “socialization” “emotion-seeking,” and “information-seeking” subscale score of 11.10±2.80, 20.75±4.91, and 13.38±3.87, respectively (Table 4).

	VAS Total Median (min- max)	Absorption Median (min-max)	Vigor Median (min- max)	SES Total Median (min- max)	Socialization Median (min-max)	Emotion- seeking Median (min- max)	Information- seeking Median (min-max)	SOQ Total Median (min- max)
<b>Gender</b>								
Boy	45 (16-80)	7.6 (1-8)	7 (1-8)	7.3 (1-8)	11 (3-15)	21 (5-25)	13 (4-20)	46 (18-60)
Girl	68 (16-80)	7.6 (1.1-8)	7 (1-8)	7.4 (1.1-8)	12 (3-15)	23 (5-25)	13 (4-20)	48 (12-60)
<b>U</b>	<b>7531</b>	23614.5	22274.5	22980	<b>21215.5</b>	<b>20705</b>	22988	22066.5
<b>p</b>	<b>&lt;0.001***</b>	0.781	0.191	0.450	<b>0.036*</b>	<b>0.012*</b>	0.454	0.149
<b>Cohen's d</b>	<b>0.591</b>	-	-	-	<b>0.200</b>	<b>0.120</b>	-	-
<b>Age (year)</b>								
≤12	60 (16-80)	7.6 (1-8)	7 (1-8)	7.4 (1-8)	12 <sup>b</sup> (3-15)	22 (5-25)	14 (4-20)	48 <sup>b</sup> (12-60)
13	58 (16-80)	7.6 (1.1-8)	7 (1-8)	7.4 (1.1-8)	10 <sup>a</sup> (3-15)	21 (5-25)	13 (4-20)	46 <sup>a</sup> (12-60)
≥14	56 (16-80)	7.3 (2.9-8)	6 (1-8)	6.9 (2.4-8)	11 <sup>ab</sup> (3-15)	20 (9-25)	12 (4-20)	41 <sup>a</sup> (24-60)
<b>H</b>	1.378	0.991	2.349	1.773	<b>10.710</b>	5.454	5.607	<b>9.563</b>
<b>p</b>	0.502	0.609	0.309	0.412	<b>0.005**</b>	0.065	0.061	<b>0.008**</b>
<b>Cohen's d</b>	-	-	-	-	<b>0.020</b>	-	-	<b>0.017</b>
<b>Sports experience (year)</b>								
≤2	61 (16-80)	7.4 <sup>a</sup> (1-8)	6.7 <sup>a</sup> (1-8)	7.1 <sup>a</sup> (1-8)	11 (3-15)	21 <sup>a</sup> (5-25)	12 <sup>a</sup> (4-20)	45 <sup>a</sup> (12-60)
3-5	59 (16-80)	7.6 <sup>b</sup> (1.7-8)	7.3 <sup>b</sup> (1.7-8)	7.5 <sup>b</sup> (2.1-8)	11 (3-15)	23 <sup>b</sup> (5-25)	14 <sup>b</sup> (5-20)	49 <sup>b</sup> (16-60)
≥6	56 (16-80)	7.7 <sup>b</sup> (1.3-8)	7.3 <sup>b</sup> (1-8)	7.5 <sup>b</sup> (1.2-8)	12 (3-15)	22 <sup>ab</sup> (5-25)	15 <sup>b</sup> (4-20)	48 <sup>ab</sup> (12-60)
<b>H</b>	1.714	<b>15.125</b>	<b>12.684</b>	<b>14.106</b>	0.591	<b>8.937</b>	<b>21.181</b>	<b>12.079</b>
<b>p</b>	0.424	<b>0.001**</b>	<b>0.002**</b>	<b>0.001**</b>	0.744	<b>0.011*</b>	<b>&lt;0.001***</b>	<b>0.002**</b>
<b>Cohen's d</b>	-	<b>0.030</b>	<b>0.024</b>	<b>0.028</b>	-	<b>0.016</b>	<b>0.044</b>	<b>0.023</b>
<b>Position</b>								
Libero	74 <sup>d</sup> (29-80)	7.7 (5.3-8)	7.3 <sup>c</sup> (3-8)	7.6 (4.6-8)	12 (3-15)	24 (5-25)	14 (6-20)	49 (14-59)
Center	69 <sup>c</sup> (23-80)	7.6 (3.3-8)	7 <sup>b</sup> (2-8)	7.4 (3.5-8)	11 (3-15)	23 (5-25)	13 (4-20)	48 (12-60)
Passer	53.5 <sup>ab</sup> (16-80)	7.4 (1-8)	7 <sup>b</sup> (1-8)	7.3 (1-8)	11 (3-15)	20 (5-25)	13 (4-20)	45 (12-60)
Passer anchor	48 <sup>a</sup> (16-80)	7.4 (1.1-8)	6.7 <sup>a</sup> (1-8)	7.1 (1.1-8)	11 (3-15)	22 (5-25)	13 (5-20)	48 (18-58)
Slammer	54 <sup>b</sup> (16-80)	7.6 (1.6-8)	7.3 <sup>c</sup> (1.3-8)	7.5 (1.5-8)	11 (5-15)	23 (5-25)	14 (4-20)	48 (14-60)
<b>H</b>	<b>92.907</b>	7.333	<b>10.424</b>	8.644	2.241	8.965	2.920	5.242
<b>p</b>	<b>&lt;0.001***</b>	0.119	<b>0.034*</b>	0.071	0.692	0.062	0.571	0.263
<b>Cohen's d</b>	<b>0.202</b>	-	<b>0.015</b>	-	-	-	-	-

U: “Mann-Whitney U Test”; “H: Kruskal-Wallis H Test”, “\*p<0.05”; “\*\*p<0.01”; “\*\*\*p<0.001”  
a, b, c, d: The difference between medians without a common letter is significant (p<0.05)

Gender affected participants' VAS total ( $U=7531$ ;  $p<0.001$ ) and SOQ "socialization" ( $U=21215.5$ ;  $p<0.05$ ) and "emotion-seeking" subscale scores ( $U=20705$ ;  $p<0.05$ ). Female participants [68 (16-80)] had a significantly higher median VAS score than their male counterparts [45 (16-80)]. Female participants [12 (3-15)] had a significantly higher median SOQ "socialization" subscale score than their male counterparts [11 (3-15)]. Female participants [23 (5-25)] had a significantly higher median SOQ "emotion-seeking" subscale score than their male counterparts [21 (5-25)]. Moreover, while the VAS total score had a high effect size, the SOQ "socialization" and "emotion-seeking" scores had moderate effect sizes (Table 5).

Age affected participants' SOQ total ( $H=9.563$ ;  $p<0.01$ ) and "socialization" subscale scores ( $H=10.710$ ;  $p<0.01$ ). Participants younger than 13 [12 (3-15)] had a significantly higher median SOQ "socialization" subscale score than those at the age of 13 [10 (3-15)]. Participants younger than 13 [48 (12-60)] had a significantly higher median SOQ total score than those at the age of 13 [46 (12-60)] and older than 13 [41 (24-60)]. Moreover, SOQ "socialization" and SOQ total scores had moderate effects (Table 5).

Sports experience affected participants' SES total ( $H=14.106$ ;  $p<0.01$ ) and SES "vigor" ( $H=12.684$ ;  $p<0.01$ ) and "absorption" subscale scores ( $H=15.125$ ;  $p<0.01$ ). Participants with more than five years of sports experience [7.7 (1.3-8)] and those with 3-5 years of sports experience [7.6 (1.7-8)] had a significantly higher median SES "absorption" subscale score than those with less than two years of sports experience [7.4 (1-8)]. Participants with more than five years of sports experience [7.3 (1-8)] and those with 3-5 years of sports experience [7.3 (1.7-8)] had a significantly higher median SES "vigor" subscale score than those with less than two years of sports experience [6.7 (1-8)]. Participants with more than five years of sports experience [7.5 (1.2-8)] and those with 3-5 years of sports experience [7.5 (2.1-8)] had a significantly higher median SES total score than those with less than two years of sports experience [7.1 (1-8)]. SES "absorption," "vigor," and total scores had moderate effect sizes. SOQ "emotion-seeking," "knowledge-seeking," and total scores had moderate effect sizes (Table 5).

Sports experience affected participants' SOQ total ( $H=12.079$ ;  $p<0.01$ ) and SOQ "emotion-seeking" ( $H=8.937$ ;  $p<0.05$ ) and "information-seeking" subscale scores ( $H=21.181$ ;  $p<0.001$ ). Participants with 3-5 years of sports experience [23 (5-25)] had a significantly higher median SOQ "emotion-seeking" subscale scores than those with less than two years of sports experience [21 (5-25)]. Participants with more than five years of sports experience [15 (4-20)] and those with 3-5 years of sports experience [14 (5-20)] had a significantly higher median SOQ "information-seeking" subscale score than those with less than two years of sports experience [12 (4-20)]. Participants with 3-5 years of sports experience [49 (16-60)] had a significantly higher median SOQ total score than those with less than two years of sports experience [45 (12-60)]. While the VAS total score had a high effect size, the SES "absorption" score had a moderate effect (Table 5).

Position affected participants' VAS total scores ( $H=92.907$ ;  $p<0.001$ ). Participants who were liberos [74 (29-80)] had a significantly higher median VAS total score than those playing in the center [69 (23-80)], those who were slammers [54 (16-80)], and those playing in the passer anchor [69 (23-80)]. Participants playing in the center [69 (23-80)] had a significantly higher median VAS total score than those who were slammers [54 (16-80)] and those playing in the passer anchor [48 (16-80)]. Participants who were slammers [54 (16-80)]

had a significantly higher median VAS total score than those playing in the passer anchor [48 (16-80)] (Table 5).

**Table 6.** Correlation coefficients between SES, SOQ sub-factor and total scores, and VAS total scores

	VAS Total	
	s	p
<b>Absorption</b>	0.312	<0.001***
<b>Vigor</b>	0.314	<0.001***
<b>SES Total</b>	0.325	<0.001***
<b>Socialization</b>	0.223	<0.001***
<b>Emotion-seeking</b>	0.266	<0.001***
<b>Information-seeking</b>	0.162	0.01**
<b>SOQ Total</b>	0.256	<0.001***

“s: Spearman rank-difference coefficient of correlation”; “\*\*p<0.01”; “\*\*\*p<0.001”

There was a weak positive correlation between VAS total and SES “absorption” subscale scores (s=0.312; p<0.001). There was a weak positive correlation between VAS total and SES “vigor” subscale scores (s=0.314; p<0.001). There was a weak positive correlation between VAS total and SES total scores (s=0.325; p<0.001). There was a weak positive correlation between VAS total and SOQ “socialization” subscale scores (s=0.223; p<0.001). There was a weak positive correlation between VAS total and SOQ “emotion-seeking” subscale scores (s=0.266; p<0.001). There was a very weak positive correlation between VAS total and SOQ “information-seeking” subscale scores (s=0.162; p<0.01). There was a weak positive correlation between VAS total and SOQ total scores (s=0.256; p<0.001) (Table 6).

**Table 7.** The effect of SES and SOQ sub-factor scores on the total VAS score

	Unstandardized Coefficients				95% $\beta$ Confidence Interval	
	$\beta$	Std. Error	t	p	Lower Bound	Upper Bound
R <sup>2</sup> =0.108						
<b>(Constant)</b>	28.037	5.166	<b>5.428</b>	<b>&lt;0.001***</b>	17.884	38.190
<b>Absorption</b>	1.982	1.063	1.865	0.063	-0.107	4.071
<b>Vigor</b>	2.173	0.810	<b>2.682</b>	<b>0.008**</b>	0.581	3.765
<b>Socialization</b>	0.846	0.448	1.889	0.060	-0.034	1.727
<b>Emotion-seeking</b>	-0.123	0.274	-0.448	0.654	-0.660	0.415
<b>Information-seeking</b>	-0.551	0.309	-1.785	0.075	-1.159	0.056

$\beta$ : Beta Coefficient; Std. error: Standard error; t: Independent samples t-test

\*\*p<0.01; \*\*\*p<0.001

Multicollinearity checks were performed on the variables in the regression. While the tolerance values of all variables were greater than 0.10, the VIF values were less than 5. These results indicated that multiple linearity was achieved. Participants' SES “vigor” subscale scores had a statistically significant effect on their VAS total scores (t=2.682; p<0.01). Their SES “absorption” subscale scores and SOQ subscale scores did not have a statistically significant effect on VAS total scores (p>0.05). The results showed that a one-unit increase in the SES “vigor” subscale scores led to a 2.173-fold increase in the VAS total score. Additionally, the R<sup>2</sup> value indicated that the independent variables explained 10.8% of the dependent variable (Table 7).

## Discussion and Conclusion

This study investigated the relationship between primary school students' sports orientation and engagement and their attitudes toward volleyball. There is a growing body of research into athletes' sports orientation and their attitudes toward volleyball. However, there is little research into sports engagement. This is the first study to address these three components. Therefore, the findings were discussed in line with the hypotheses.

Gender affected participants' VAS total and SOQ "socialization" and "emotion-seeking" subscale scores, suggesting that their sports orientation predicted their attitudes toward volleyball. Female participants had a significantly higher median VAS total and SOQ "socialization" subscale score than their male counterparts. Therefore, we can state that female students socialize with volleyball and contribute to their developmental stages. This finding confirmed the hypothesis that gender affects children's sports orientation and attitudes toward volleyball. Our results are consistent with what has been reported by earlier studies (Karcı, 2021; Subaşı, 2021; Özşarı & Çetin, 2022; İslam, 2022a, 2022b, 2022d, 2023a, 2025). However, they disagree with what has been reported by Turan (2021), Duman & Öktem (2021), and Aydemir, (2023).

Age affected participants' SOQ total and "socialization" subscale scores. Participants younger than 12 had a significantly higher median SOQ total score than those older than 12, suggesting that younger students have more orientation toward sports than their older counterparts. Participants younger than 12 had a significantly higher median SOQ "socialization" subscale score than those at the age of 12, indicating that sports activities allow younger students to socialize more than their older counterparts. Socialization is important for physical, affective, and psycho-social development. Therefore, teachers and parents should encourage students to participate in sports activities. Our finding confirmed the hypothesis that age affects children's sports orientation. While our findings are consistent with those reported by earlier studies (Temel, 2019; Diker, 2021; İslam, 2024a, 2025; İslam & Bayraktar, 2025), they disagree with others (Turan, 2021; Özgün et al., 2021, İslam, 2022d).

Sports experience affected participants' SES total and SES "vigor" and "absorption" subscale scores, suggesting that their sports engagement made them more likely to orient toward sports. This result indicates that students concentrate on sports and enjoy the sporting activities they engage in, particularly when facing challenges in acquiring knowledge. This inclination may prompt them to turn to sports activities. Sports experience affected participants' SOQ total and SOQ "emotion-seeking" and "information-seeking" subscale scores. Therefore, this finding confirmed the hypothesis that sports engagement affects children's sports engagement and orientation. While our findings are consistent with those reported by earlier studies (Caz & Bardakçı, 2023; Saki & Aybek, 2023; Karcı, 2021; Gökdağ, 2018; Can & Kızılet, 2023; İslam, 2022d, 2024a, 2025; İslam & Bayraktar, 2025), they disagree with others (Turan, 2021).

Position affected participants' VAS total scores, suggesting that position predicts primary school students' attitudes toward volleyball. This finding indicates that primary school students have positive attitudes toward volleyball, confirming the hypothesis that position affects children's attitudes toward volleyball. This result is consistent with what has been reported by İslam (2022c, 2023b, 2025; İslam & Bayraktar, 2025).

There was a positive correlation between participants' sports orientation and engagement and their attitudes toward volleyball. Therefore, this finding confirmed the hypothesis that a positive correlation exists between children's sports orientation and engagement and their attitudes toward volleyball. This result agrees with what has been reported by earlier research (Saki & Aybek, 2023; Skinner et al., 2008; Crust & Swann, 2011; Can & Kızılet, 2023; İslam, 2022d, 2024a, 2024b, 2025; İslam & Bayraktar, 2025). However, our result disagrees with what has been reported by some researchers (Özgün et al., 2021; İslam, 2022c).

The regression analysis showed that participants' SES "vigor" subscale scores positively affected their VAS total scores. Students' commitment to volleyball requires a high level of motivation, which is promoted by the feedback received from teachers and parents. The elevated motivation for volleyball impacts individuals at cognitive and affective levels. A positive attitude toward volleyball significantly influences their behavior in relation to the sport. Therefore, our finding confirmed the hypothesis that there is a positive correlation between children's sports engagement and their attitudes toward volleyball. While our findings are consistent with those reported by earlier studies (Saki & Aybek, 2023; Can & Kızılet, 2023; İslam, 2023a, 2023b), they disagree with others (Altın et al., 2023; İslam & Bayraktar, 2025).

The results indicate that gender, age, sports experience, and position affect primary school students' sports orientation and engagement and their attitudes toward volleyball. The correlation analysis suggests a positive correlation between primary school students' sports orientation and engagement and their attitudes toward volleyball. The regression analysis indicates significant associations between primary school students' sports engagement and their attitudes toward volleyball. Our results confirm all the hypotheses. These psychological structures play a significant role in the developmental periods of students. Enhancing their awareness of their orientation, commitment to sports, and attitudes toward volleyball is important. We think our results will significantly contribute to the literature and pave the way for further research.

### **Limitations and Suggestions**

This study is anticipated to contribute to the existing literature by unveiling concepts limited to subjects within the realm of sport psychology. Supporting students' orientation and commitment to volleyball is crucial while enhancing their awareness of the sport. The findings obtained from this study are deemed important, and there is a need to reshape them through other applications and designs in the field. However, it is noteworthy that this research is confined to primary and secondary school students in the Gölbaşı district of Ankara province. To enrich the study, it is recommended to diversify the sample groups and tailor the research to various sports branches. While the current quantitative data is valuable, incorporating qualitative and mixed methods could further contribute to the literature by expanding the scope and revealing nuanced results. Nonetheless, it is advised that the limitations stemming from this study be addressed and expanded upon in subsequent research endeavors.

Unfortunately, this study did not undertake a qualitative exploration of these psychological variables. Nevertheless, there is potential for a similar investigation to be diversified by incorporating other educational institutions, including high schools, universities, and younger age categories within volleyball clubs. During these developmental periods, positive

influences on students' gender and age variables can improve their motivation to socialize, stay away from harmful habits, and belong to a group and their attitudes towards volleyball. Longitudinal studies should examine the long-term effects of sports participation, and qualitative interviews should be used to explore motivational mechanisms in greater depth. Given the current success of the Turkish women's national volleyball team and the peak performance of Turkish women's volleyball teams, it would be valuable to examine these psychological structures in collaboration with volleyball coaches and teachers. Students who play volleyball will have a healthy developmental period and a sense of achievement, which will contribute greatly to their development and increase their orientation and commitment to volleyball. This is particularly relevant because psychological structures are often highlighted, especially in the case of relegation or defeat (Apitzsch, 2006).

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