ORIGINAL RESEARCH

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Comparison of Sports Awareness in Adolescents and Evaluation of the Effect of Awareness Levels on Sport Oriented Attitudes

Adolesanlarda Spor Farkındalığının Karşılaştırılması ve Farkındalık Düzeylerinin Spora Yönelik Tutumlarına Olan Etkisinin Değerlendirilmesi

Gülsüm Özen[1,2,3], Ayşe Gül Güven[3], Zehra Aycan[3]

[1]Ankara University Graduate School of Health Science, Adolescent Health, Ankara, Turkey
[2]University of Campania "Luigi Vanvitelli", Department of Pediatrics, Napoli, Italy
[3]Ankara University Faculty of Medicine, Department of Pediatrics, Adolescent Health, Ankara, Turkey

Abstract

Objective: Adolescence is a period characterized by significant psychological and physical changes which can lead to health issues that can be prevented early on through participation in sports. Adolescents' awareness of sports can either encourage or hinder their approach to sports activities. While studies have explored the factors influencing physical activity levels in adolescents, many of them fall short by not examining the motivational factors behind sedentary behavior. This study aims to assess adolescents' sports awareness and evaluate how it impacts their attitudes toward physical activity.

Method: In this cross-sectional study, the sports awareness scale and sport-oriented attitude scale were administered to 400 healthy adolescents, aged 11 to 18, who presented to the adolescent health outpatient clinic of our institution.

Results: Adolescents with higher sports awareness participated in sports at a higher rate, and their sport-oriented attitude scores were significantly higher than those of adolescents who did not engage in sports. A highly significant relationship was found between all subdimension scores and the total scores of both scales.

Conclusion: This study demonstrated that, contrary to popular belief, the role of sports in adolescents' lives and their sports habits are influenced not only by environmental factors but also by their awareness of sports. It is essential to develop and support policies aimed at combating sedentary lifestyles in adolescents, with a particular focus on girls and children from lower-income families, as they are more likely to have

Öz

Amaç: Adolesan dönem, önemli psikolojik ve fiziksel değişimlerle karakterize bir dönemdir; bu değişimlerin sebep olabileceği sağlık sorunlarının bir kısmı, erken dönemde spor alışkanlığı kazanılması ile önlenebilir. Adolesanların spor farkındalığı, spor faaliyetlerine karşı tutumlarını teşvik edebileceği gibi engelleyici bir faktör de olabilir. Adolesanlarda fiziksel aktivite düzeylerini etkileyen faktörler üzerine yapılmış birçok çalışma bulunsa da, bu çalışmaların birçoğu sedanter davranışların arkasındaki motivasyonel faktörleri incelemekte yetersiz kalmaktadır. Bu çalışma, adolesanların spor farkındalığını değerlendirmeyi ve bunun fiziksel aktiviteye yönelik tutumlarını nasıl etkilediğini incelemeyi amaçlamaktadır.

Yöntem: Bu kesitsel çalışmada, hastanemiz ergen sağlığı polikliniğine başvuran 11-18 yaş aralığında olan 400 sağlıklı adolesana spor farkındalık ölçeği ve spora yönelik tutum ölçeği uygulanmıştır.

Bulgular: Daha yüksek spor farkındalığına sahip adolesanlar, spora daha fazla oranda katılım göstermekteydi ve bu bireylerin spora yönelik tutum puanları, spora katılmayan ergenlere göre anlamlı derecede yüksekti. Her iki ölçeğin tüm alt boyut puanları ile toplam puanları arasında istatistiksel olarak anlamlı düzeyde ilişki saptanmıştır.

Sonuç: Bu çalışma, yaygın inanışın aksine, adolesanların yaşamlarında sporun rolünün ve spor alışkanlıklarının yalnızca çevresel faktörlerle değil, aynı zamanda spor farkındalık düzeyleriyle de şekillendiğini ortaya koymuştur. adolesanlarda, özellikle de daha düşük spor farkındalığına sahip olan düşük gelirli ailelerden gelen çocuklar ile kız çocuklarında

Address for Correspondence: Gülsüm Özen, Ankara University Graduate School of Health Science, Adolescent Health; Faculty of Medicine, Department of Pediatrics, University of Campania Luigi Vanvitelli", Department of Pediatrics; Ankara, Turkey; Napoli, Italy
E-mail: ozen_gulsum@hotmail.com **ORCID:** orcid.org/0000-0002-9049-2875
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Abstract

lower levels of sports awareness. Efforts should be made to increase adolescents' awareness of sports and provide more opportunities for participation in sports, to foster the development of healthier generations.

Keywords: Adolescent, attitude, awareness, sport

Öz

sedanter yaşam tarzıyla mücadele etmeye yönelik politikaların geliştirilmesi ve desteklenmesi büyük önem taşımaktadır. Adolesanların spor farkındalıklarını artırarak spora katılımları için daha fazla fırsat tanınması, daha sağlıklı nesillerin gelişimine katkı sağlayacaktır.

Anahtar kelimeler: Adolesan, farkındalık, spor, tutum

Introduction

Adolescence is a critical developmental stage marked by the formation of personal identity, the transition from childhood to adulthood, along with a wide range of psychological and physiological transformations. During this period, biological and physiological changes intensify, and adolescents may struggle to adapt to these rapid shifts (1). If not properly managed, such challenges may lead to physical problems such as postural deformities (e.g., idiopathic scoliosis), metabolic syndrome, and emotional instability, which may persist into adulthood and result in long-term health complications (2).

Engaging in regular physical activity during adolescence is essential for mitigating these risks at an early stage, improving physical activity levels, maintaining spinal health, controlling body weight, and supporting mental well-being. It is also crucial for adolescents to develop a consistent exercise routine because it offers numerous benefits, including supporting growth, promoting long-term health, increasing bone density, reducing the risk of osteoporosis, and preventing obesity and various chronic diseases later in life (3).

Lifestyle behaviors significantly influence overall health. In recent years, shifts in societal and environmental conditions have produced substantial changes in lifestyle behaviors, particularly among adolescents (4). These changes often manifest as poor dietary habits, physical inactivity, and sedentary lifestyles. Today's youth are less active, spend more time on screens—whether computers, mobile devices, or televisions—and neglect regular physical activity. This sedentary lifestyle contributes to numerous health concerns, including orthopedic problems, mental health issues, circulatory problems, difficulty managing weight, and premature mortality (5-7). Therefore, it is vital to raise awareness about these detrimental behaviors and their consequences to protect young individuals and foster their healthy development.

Awareness is defined as "being conscious of something". As it is shaped by prior knowledge, personal experience, and reinforcement processes, awareness is inherently subjective (8). Increasing an individual's knowledge and learning enhances theirawareness.

According to the psychological continuum model (9), which was introduced in 2001, awareness leads to allegiance. This hierarchical model consists of four stages: awareness, attraction, attachment, and allegiance. It proposes that a person must first develop awareness of a sports object before forming an emotional or behavioral connection to it. For example, an adolescent who has never played basketball or watched a game is unlikely to become a committed player or fan without first being introduced to the sport and its benefits.

Sports awareness refers to increasing individuals' awareness of sports. In other words, it involves learning about the physical, mental, and social benefits of sports, linking these benefits to various aspects of life, applying this knowledge in real-life situations, and promoting awareness of these benefits within the community (10). Awareness can facilitate or inhibit a person's approach to a sporting object. As a result, the individual will form a stronger psychological connection to it and internalize the concept of the sport object (11). Acquiring the habit of engaging in sports at an early age is crucial for fostering healthy individuals and societies. To achieve this goal, it is essential to identify these behavioral patterns, particularly during childhood and adolescence.

While many studies have investigated factors affecting adolescents' physical activity, they often emphasize demographic or environmental influences (e.g., sex, ethnicity, age, weight status, parenting practices, season, and excessive screen time) overlooking deeper motivational and psychological drivers of inactivity (12-14). This highlights a gap in understanding the motivational determinants of sedentary behavior. It is essential for clinicians to assess adolescents' awareness of the importance and benefits of sports, evaluate the degree of that awareness, and observe how it influences their attitudes toward physical activity.

Only in this way can we help raise healthy generations by increasing young people's awareness of sports and encouraging their regular participation in sports. Therefore, additional research is needed to investigate the connection between awareness and attitude.

This study aims to assess adolescents' awareness and evaluate how it impacts their attitudes and behaviors, to identify key motivational factors that support early and sustained engagement in physical activity.

Materials and Methods

Study Design and Participants

This cross-sectional study included 400 healthy adolescents aged 11-18 years who attended the pediatric outpatient clinic of the Ankara Atatürk Sanatoryum Training and Research Hospital. Participants were categorized into two groups based on their level of sports activity. The "active" group consisted of 200 adolescents who regularly participated in either individual or team sports for at least 40 minutes per day, on a minimum of three days per week, for at least one year. The remaining 200 adolescents who did not meet these criteria were classified as the "inactive" group.

The sample size was calculated using G*Power. Assuming a medium effect size of 0.5 and 95% power, the required number of participants was 105 per group (15,16).

Inclusion criteria for both groups were: Being 11-18 years of age, having no medical condition that contraindicates participation in sports, having a normal body mass index (BMI), and providing informed consent to participate. Adolescents were excluded if they were younger than 11 or older than 18, if they declined to participate, if they had medical limitations preventing physical activity, or if they were classified as obese based on BMI.

Anthropometric measurements were taken during clinical examinations. Body weight was measured using a calibrated digital scale, and height was recorded using a standard stadiometer. BMI was calculated using the formula: BMI = weight (kg)/height $(m)^2$.

Measures

The sports awareness scale (SAS) was developed in line with the psychological continuum model and Bloom's taxonomy theory. Its validity and reliability were established by Uyar and Sunay (10). The scale consists of 30 items across two sub-dimensions: "Sport information and discrimination" (21 items) and "social and individual benefit" (9 items). Responses are scored using a 5-point Likert scale, yielding a total score ranging from 30 to 150. Higher scores indicate greater awareness of the benefits of sports. Awareness levels are categorized as follows: 30-53= "not aware at all", 54-77= "not aware", 78-102= "moderately aware", 103-126= "aware", and 127-150= "fully aware" (10).

The sport-oriented attitude scale (SOAS) was developed by Sentürk in 2015 to assess individuals' propensity to engage in sports, their perspectives on sports, sports habits, and the role of sports in shaping their character—essentially evaluating attitudes toward sports (17). The scale comprises 25 positively scored items, with total scores ranging from 25 to 125. Higher scores indicate a stronger and more favorable attitude toward sports. The scale includes three sub-dimensions: "Giving importance to sport", "being interested in sport", and "engaging in physical exercise or sport" (17). The scale contains no reverse-coded items, which is consistent with research suggesting that negatively worded items may introduce cognitive bias and compromise internal consistency (18).

Statistical Analysis

Data were analyzed using the Statistical Package for the Social Sciences (IBM SPSS Statistics 23, IBM Inc., Chicago, IL, USA). Prior to analysis, datasets were reviewed for missing values and tested for normality (univariate and multivariate), linearity, and multicollinearity to ensure that statistical assumptions were satisfied.

Confirmatory factor analyses were conducted to assess the construct validity of the scales. Differences between the active and inactive groups were evaluated by comparing subscale scores from the SAS and SOAS. Generalized linear models were applied to examine interactions between awareness and attitude levels, with estimated means reported along with 95% confidence intervals. Depending on data distribution, Pearson or Spearman correlation coefficients were calculated to assess the relationships between variables. Group comparisons were performed using either the Student's t-test or the Mann-Whitney U test, based on the assumption of normality. Statistical significance was considered if the p-value was less than 0.05 ($p<0.05$).

Ethical Considerations

This study was conducted in accordance with the Declaration of Helsinki and received approval from the regional Ethics Committee of Ankara Atatürk Sanatoryum Training and Research Hospital (approval number: 2024/482, date: 26.06.2024). All participants were thoroughly informed

about the purpose, procedures, potential risks, and benefits of the study. Written informed consent was obtained prior to enrollment.

Results

This study included a total of 400 healthy adolescents, comprising 200 girls and 200 boys, with a mean age of 14.6±2.2 years. Of these, 200 adolescents reported regular participation in sports activities, whereas the remaining 200 did not engage in any organized physical activity. The majority of participants were high school students, resided in urban areas (city center and central districts), and came from middle-income nuclear families. Additional demographic characteristics are presented in Table 1.

A significant association was observed between age and sports participation; younger adolescents were more likely to engage in sports ($p<0.005$). Similarly, the frequency of physical activity was higher among middle school students than their older peers ($p<0.005$). Adolescents who had close friends who were actively involved in sports and those who resided in urban settings were significantly more likely to participate in physical activity ($p<0.005$ and $p=0.027$, respectively). In contrast, having a family member engaged in sports did not exert a statistically significant influence on adolescents' own participation in sports ($p=0.491$). Furthermore, no significant differences were identified between groups with respect to family type or household income level ($p=0.321$ and $p=0.459$, respectively) (Table 1).

When the scores of both the SAS and the SOAS were compared, statistically significant differences were observed across all dimensions. Higher scores were consistently recorded in the physically active group ($p<0.05$).

Table 1. Demographic data of the study group according to sports activity status

	Total (n=400)	Sport (-) (200)	Sport (+) (200)	p-value
Age (years)[a]	14.6±2.2	15.1±2.1	14.1±2.2	**<0.001**
Weight (kg)[a]	56.7±12.4	58.1±12.4	55.3±12.2	**0.023**
Height (cm)[a]	164.5±10.9	165.5±10.1	163.4±11.5	**0.044**
BMI (kg/m²)[a]	20.8±3.2	21.1±3.4	20.5±2.9	0.083
Gender[b]				**<0.001**
Girls	200 (50%)	123 (61.5%)	77 (38.5%)	
Boys	200 (50%)	77 (38.5%)	123 (61.5%)	
Educational level[b]				**<0.001**
Middle school	129 (32.3%)	46 (23%)	83 (41.5%)	
High school	246 (61.5%)	140 (70%)	106 (53%)	
University	25 (6.2%)	14 (7%)	11 (5.5%)	
Family type[b]				0.321
Nuclear family	350 (87.5%)	172 (86%)	178 (89%)	
Extended family	23 (5.8%)	15 (7.5%)	8 (4%)	
Single-parent family	27 (6.8%)	13 (6.5%)	14 (7%)	
Residential area[b]				0.027
Urban	245 (61.3%)	128 (64%)	117 (58.5%)	
Suburban	144 (36%)	63 (31.5%)	81 (40.5%)	
Rural	11 (2.7%)	9 (4.5%)	2 (1%)	
Family income[b]				0.459
Low	37 (9.3%)	15 (7.5%)	22 (11%)	
Middle	340 (85%)	174 (87%)	166 (83%)	
High	23 (5.7%)	11 (5.5%)	12 (6%)	
Family member involved in sport[b]				0.491
Siblings	107 (26.8%)	51 (25.5%)	56(28%)	
Mother/father	31 (7.8%)	13 (6.5%)	18 (9%)	
None	262 (65.5%)	136 (68%)	126 (63%)	
Close friend involved in sports[b]				**<0.001**
Yes	284 (71%)	110 (55%)	174 (87%)	
No	116 (29%)	90 (45%)	26 (13%)	
Sport licence[b]				**<0.001**
Yes	108 (27%)	0	108 (54%)	
No	294 (73%)	200	92 (46%)	

Continuous variables were expressed as mean ± standard deviation, while categorical variables were presented as frequencies and within-group percentages.
[a]: $p<0.05$ assessed through independent samples t- analysis, [b]: $p<0.05$ assessed through chi-squared analyses, BMI: Body mass index

Table 2. The scores of the scales according to gender and sports activity status

		Sports awareness scale			Sport-oriented attitude scale			
		SID score	SIB score	Total score	GIS score	BIS score	DPES score	Total score
General population	**Sport (-)**	65.6±16.3	36.1±7.1	101.7±21.1	39.2±9.1	21.7±5.1	17.4±4.6	78.3±17.7
	Sport (+)	81.8±11.6	40.8±3.6	122.5±13.4	49.4±6.3	28.1±4.3	24±3.4	101.5±12.3
	p-value	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.007**	**<0.001**	**<0.001**
Girls	**Sport (-)**	**63.9±16.2**	**36.3±6.5**	**100.2±20.3**	**39.8±8.4**	**22±5.2**	**17.4±4.5**	**79.2±16.8**
	Sport (+)	80.4±12.4	41±4	121.5±14.2	49.5±6.2	27.9±4.5	23.3±3.5	100.7±12.6
	p-value	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**
Boys	**Sport (-)**	68.3±16.2	35.7±8.1	104±22.3	38.1±10.2	21.1±5.1	17.4±4.7	76.8±19.2
	Sport (+)	82.6±10.9	40.6±3.4	123.2±12.8	49.3±6.4	28.3±4.1	24.4±3.3	102±12.1
	p-value	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.019**	**0.005**	**<0.001**
Sport (-)	Girls	63.9±16.2	36.3±6.5	100.2±20.3	39.8±8.4	22±5.2	17.4±4.5	79.2±16.8
	Boys	68.3±16.2	35.7±8.1	104±22.3	38.3±10.2	21.1±5.1	17.4±4.7	76.8±19.2
	p-value	0.061	0.529	0.221	0.281	0.210	0.991	0.357
Sport (+)	Girls	80.4±12.4	41±4	121.5±14.4	49.5±6.2	27.9±4.5	23.3±3.5	100.7±12.6
	Boys	82.6±10.9	40.6±3.4	123.2±12.8	49.3±6.4	28.3±4.1	24.4±3.3	101.9±12.1
	p-value	0.196	0.434	0.368	0.784	0.501	**0.025**	0.479
Sport (+)	Sport licence (-)	80±12.5	40.5±3.5	120.4±13.8	47.7±6.7	27.2±4.3	23.5±3.4	98.5±12.7
	Sport licence (+)	83.3±10.5	41±3.7	124.3±12.9	50.8±5.7	28.9±4.1	24.3±3.4	104±11.4
	p-value	**0.040**	**0.267**	**0.038**	**<0.001**	**0.005**	0.083	**<0.001**

Continuous variables were expressed as mean ± standard deviation, SID: Sport information and discrimination, SIB: Social and individual benefit, GIS: Giving importance to sport, BIS: Be interested in sport, DPES: Doing physical exercises or sport

These differences remained evident after stratification by gender: Both male and female adolescents who participated in sports demonstrated significantly higher levels of sports awareness and more favorable attitudes toward sports ($p<0.05$).

However, gender did not significantly influence overall sports awareness or sport-oriented attitudes. However, within the subdimension "doing physical exercises or sports", boys in the sports group scored significantly higher than girls ($p=0.025$). Furthermore, adolescents holding an official sports license demonstrated significantly higher scores on both the SAS and SOAS compared to their non-licensed peers ($p=0.038$ and $p<0.005$, respectively; see Table 2).

No significant associations were detected between most demographic variables (e.g., BMI, education level, family structure, residential area) and total scores on either the SAS or SOAS ($p>0.05$). Nonetheless, younger participants tended to score higher on the SOAS, indicating more favorable attitudes toward sports. In addition, adolescents with close friends who were actively engaged in sports demonstrated significantly higher levels of both awareness and sport-oriented attitudes ($p<0.005$).

Analysis of sports awareness levels—based on the categorical classification of SAS scores—revealed a clear positive correlation between awareness and attitude. As adolescents' sports awareness increased, their sports-oriented attitude scores rose correspondingly ($p<0.005$). Higher awareness was also associated with being male, belonging to middle- to high-income families, having close friends involved in sports, participating in team sports, and holding an official sports license (p-values <0.005, 0.022, <0.005, <0.005, and <0.005, respectively) (Table 3).

No significant associations between sports awareness and BMI, education level, family type, residential location, or the presence of a family member involved in sports were observed ($p>0.05$) (Table 3).

A highly significant positive correlation was identified between all subdimension scores and total scores of the SAS and SOAS in the full sample and within both active and inactive subgroups ($p<0.005$). Adolescents with greater sports awareness—particularly in the dimensions of sport information and discrimination—exhibited stronger sports-oriented attitudes. These individuals were more likely to value sports, display greater interest in sports activities, and engage in regular physical exercise.

Table 3. Level of awareness according to participants' characteristics

	Sports awareness scale					p-value
	Not aware at all (6)	Not aware (18)	Moderately aware (74)	Aware (200)	Fully aware (102)	
GIS[a]	21.7±5.9	26.8±8.9	37±8.3	45.2±6.1	52.7±4.7	**<0.001**
BIS[a]	11.5±4	16.4±5.1	20.3±4.5	25.4±4.3	29.5 ±3.4	**<0.001**
DPES[a]	9±3.3	12±4.5	16.3±3.6	21.3±3.7	25.1±3.2	**<0.001**
Total SOAS[a]	42.2±13.1	55.1±17.3	73.1±13.4	91.9±12.5	107.3±9.4	**<0.001**
BMI[a]	20.2±2.1	20.4±2.8	21.1±3.7	21±3.1	20.4±3	0.530
Gender[b]						**<0.001**
Girls	3 (50%)	12 (66.7%)	48 (64.9%)	96 (48%)	41 (40.2%)	
Boy	3 (50%)	6 (33.3%)	26 (35.1%)	104 (52%)	61 (59.8%)	
Educational level[b]						0.350
Middle school	4 (66.7%)	9 (50%)	19 (25.7%)	63 (31.5%)	34 (33.3%)	
High school	2 (33.3%)	7 (38.9%)	50 (67.6%)	125 (62.5%)	62 (60.8%)	
University	-	2 (11.1%)	5 (6.8%)	12 (6%)	6 (5.9%)	
Family type[b]						0.841
Nuclear f.	6 (100%)	15 (83.3%)	63 (85.1%)	174 (87%)	92 (90.2%)	
Extended f.	0	2 (11.1%)	5 (6.8%)	10 (5%)	6 (5.9%)	
Single parent f.	0	1 (5.6%)	6 (8.1%)	16 (8%)	4 (3.9%)	
Residential area[b]						0.067
Urban	6 (100%)	12 (66.7%)	42 (56.8%)	130 (65%)	55 (53.9%)	
Suburban	0	4 (22.2%)	29 (39.2%)	67 (33.5%)	44 (43.1%)	
Rural	0	2 (11.1%)	3 (4.1%)	3 (1.5%)	3 (2.9%)	
Family income[b]						**0.022**
Low	0	2 (11.1%)	3 (4.1%)	27 (13.5%)	5 (4.9%)	
Middle	6 (100%)	16 (88.9%)	70 (94.6%)	156 (78%)	92 (90.2%)	
High	0	0	1 (1.4%)	17 (8.5%)	5 (4.9%)	
Family member involved in sports[b]						0.571
Siblings	0	6 (33.3%)	16 (21.6%)	60 (30%)	25 (24.5%)	
Mother/father	1	0	7 (9.5%)	15 (7.5%)	8 (7.8%)	
No	5	12 (66.7%)	51 (68.9%)	125 (62.5%)	69 (67.6%)	
Close friend involved in sports[b]						**<0.001**
Yes	2 (33.3%)	7 (38.9%)	37 (50%)	151 (%)	87 (85.3%)	
No	4 (66.7%)	11 (61.1%)	37 (50%)	49 (24.5%)	15 (14.7%)	
Type of sport[b]						**<0.001**
No sport	6 (100%)	15 (83.3%)	48 (64.9%)	64 (32%)	12 (11.8%)	
Individual	0	3 (16.7%)	19 (25.7%)	72 (36%)	40 (39.2%)	
Team	0	0	7 (9.5%)	64 (32%)	50 (49%)	
Sport licence[b]						**<0.001**
Yes	0	0	4 (5.4%)	53 (26.5%)	51 (50%)	
No	6 (100%)	18 (100%)	70 (94.6%)	147 (73.5%)	51 (50%)	

Continuous variables were expressed as mean ± standard deviation, while categorical variables were presented as frequencies and within-group percentages. SOAS: Sport-oriented attitude scale, GIS: Giving importance to sport, BIS: Be interested in sport, DPES: Doing physical exercises or sport, BMI: Body mass index, [a]: p<0.05 assessed through One-Way Analysis of Variance, [b]: p<0.05 assessed through chi-squared analyses

Discussion

To the best of our knowledge, no previous study has directly examined the impact of sports awareness on sports-oriented attitudes among adolescents. Existing research on sports awareness is limited and generally focuses on assessing "recall and knowledge levels" rather than comprehensively evaluating awareness. In contrast, the present study investigated the influence of sports awareness on sports-oriented attitudes and found a strong positive correlation between the two constructs.

Our findings further indicate that adolescents' tendency to engage in sports decreases with age. While sports participation is relatively common during middle school, participation rates decline significantly during high school and university years, likely due to increased academic pressure and risk of burnout. Supporting this, Valenzuela-Moss et al. (19) reported that weekly exercise frequency dropped from 4.0 to 2.3 days and overall participation decreased from 82% to 39% between 7th and 12th grades.

Although they did not differ significantly by grade, school-related burnout was more common among high-school students than among middle-school students (69% vs. 36%) and was higher among girls (19). Similarly, data from the National Health Interview Survey indicated that a greater proportion of boys (56.1%) than girls (52%) participated in sports (20). Consistent with these findings, our study also observed lower participation rates among girls. These results highlight the need for targeted interventions by health professionals and the broader community—including parents, teachers, and coaches—particularly during the transition from middle to high school, to create diverse and supportive opportunities for girls to engage in sports.

Although adolescents who participated in sports demonstrated lower mean height and weight, this finding is likely explained by the higher sports participation rate among younger age groups. Importantly, no significant difference was found in BMI between groups, because obese individuals were excluded to minimize confounding by obesity.

Demographic variables such as age, gender, BMI, grade level, family structure, family income, residential area, and family members' participation in sports did not significantly influence sports participation, sports awareness, or sport-oriented attitudes. While previous studies have emphasized the role of family and socio-economic status in shaping youth sports experiences and have argued that gender should be addressed through policies promoting equitable access (21,22), our findings suggest that sports attitudes are more strongly driven by awareness and intrinsic motivation rather than by external opportunities or environmental influences.

The lack of a significant effect of economic status may also reflect the impact of national policies in Turkey that require local governments to provide basic sports facilities (e.g., swimming pools, gyms, sports fields). The National Youth and Sports Policy aims to distribute sports facilities systematically across the country, enabling individuals of all ages to engage in amateur sports of their choice and ensuring access to expert coaches and qualified staff (23). This infrastructure reduces inequalities in access and supports adolescent sports participation regardless of economic background.

The presence of close friends who participate in sports was identified as a strong motivator, increasing both sports awareness and sports-oriented attitudes. Peer influence is particularly strong during adolescence and significantly shapes decisions and experiences (24). Peers influence sports attitudes in three key ways: Through friendships with specific individuals, through general acceptance within the peer group, and through athletes' self-perceptions relative to their peers. These factors are uniquely linked to the quality of adolescents' sports experiences (25). Another study suggested that a lack of friends with whom to exercise was one reason for low levels of physical activity (22). Thus, having close friends involved in sports not only increases awareness but also fosters positive attitudes toward participation.

All subdimension and total scores of the SAS and SOAS were significantly higher among boys and those who engaged in sports, especially team sports. Licensed athletes also demonstrated higher SAS and SOAS scores than non-licensed individuals. These findings align with previous research showing that participation is closely linked to perceived benefits and knowledge of sports (26). Roth and Stamatakis (27) found that a better understanding of sports guidelines was associated with higher physical activity levels in children aged 11-15. Similarly, awareness has been shown to play a crucial role in promoting active lifestyles (28). Data from the National Health Interview Survey in the United States revealed that, among adolescents, sports participation was higher among boys than among girls (56.1% vs. 52%), although the difference was not statistically significant (20). Another study in Ankara examining sports awareness among regular participants yielded similar results to ours: individuals who regularly engaged in sports had higher sports-awareness scores. Additionally, men and licensed Athletes had higher awareness scores (29). We suggest this result is rooted in the historical perception that sports have been viewed as activities exclusive to men and closely tied to male athleticism. This prevailing societal perspective influences both women's and men's participation in sports and their level of awareness of sports. During sports socialization, families encouraged boys to participate in sports to develop their masculinity, while girls were discouraged from competitive sports to protect their bodies and preserve their feminine qualities. Despite this change in approach in recent years, one study asked students from different social classes to introduce themselves. All male students, regardless of social class, introduced themselves by the sports they practiced or their interests (such as computers or electronics), whereas only female students who were licensed athletes introduced themselves by their athletic identity (30).

A strong correlation was observed among the subdimensions of SAS and SOAS, underscoring the importance of awareness in developing sport-oriented attitudes. Many studies have investigated the factors that drive young people to participate in sports. In most of these studies, achievement in athletics was most strongly related to the perceived value of physical activity as an ascetic experience that provides a medium for social interaction and offers an element of thrill (31-33). Ganakas and Peden (34) evaluated why young Australians participate in sports and ranked the reasons from most to least common as follows: Fun or enjoyment, the desire to try something different or alternative, learning and developing new skills, getting or keeping fit, opportunities for performance or competition, mastering a skill or technique, social reasons, and psychological or mental health benefits (34). Our study demonstrates that sports awareness, which includes understanding the social and individual benefits of sports, sports information, and discrimination, is strongly associated with adolescents' attitudes toward sports. However, as previous studies have shown, awareness and knowledge often lag behind other factors that motivate young people to engage in sports. This underscores the need to raise awareness and highlights the critical role of increased awareness in combating sedentary lifestyles. To raise awareness about sport, thoroughly understanding the benefits of sport is more important than simply having knowledge about it. Sport awareness promotes heightened consciousness and enables adolescents to take action, influencing their approach to sport.

This study is the first to explore the effect of sports awareness on sport-oriented attitudes in adolescents, with the aim of encouraging greater physical activity. Contrary to common assumptions, our findings suggest that sports habits are not solely shaped by environmental and socio-economic factors but are also strongly influenced by individual awareness and motivation.

Strengths of this study include using validated scales to accurately assess sports awareness and sport-oriented attitudes, thereby minimizing measurement bias. Additionally, the large sample size enabled robust analysis of demographic variables and awareness levels across genders. Therefore, our research was exploratory in nature and its results should be taken into account when establishing preventive interventions against sedentary lifestyle in the adolescent population.

Study Limitations

The primary limitation of this study is that it was conducted with participants from a single city, which may restrict the generalizability of the findings to broader populations.

Conclusion

It is crucial to encourage children—particularly adolescents—to adopt regular physical activity as a lifelong habit to foster a healthier society. Achieving this goal requires the implementation and support of comprehensive policies by both local and national authorities. These policies should actively engage families, educators, healthcare providers, and other relevant stakeholders to raise adolescents' awareness of the benefits of sports and expand opportunities for participation.

As highlighted by the findings of this study, strategies aimed at reducing sedentary behavior among adolescents must pay particular attention to girls and individuals from lower socio-economic backgrounds, as these groups are more likely to exhibit lower levels of sports awareness. Furthermore, interventions should capitalize on the influential role of peer relationships in enhancing adolescents' motivation to engage in physical activity.

Ethics

Ethics Committee Approval: This study was conducted in accordance with the Declaration of Helsinki and received approval from the regional Ethics Committee of Ankara Atatürk Sanatoryum Training and Research Hospital (approval number: 2024/482, date: 26.06.2024).

Informed Consent: Written informed consent was obtained prior to enrollment.

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Footnotes

Authorship Contributions

Surgical and Medical Practices: G.Ö., Concept: G.Ö., Z.A., Design: G.Ö., Z.A., Data Collection or Processing: G.Ö., Analysis or Interpretation: G.Ö., A.G.G., Z.A., Literature Search: G.Ö., A.G.G., Z.A., Writing: G.Ö., Z.A.

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References

1. Sawyer SM, Azzopardi PS, Wickremarathne D, Patton GC. The age of adolescence. Lancet Child Adolesc Health. 2018;2(3):223-228.
2. Levy S. Behavioral problems in adolescents, Harvard Medical School. Reviewed/Revised Jul 2022. Available from:https://www.

msdmanuals.com/home/children-s-health-issues/problems-in-adolescents/behavioral-problems-in-adolescents

3. Lagestad P, Mehus I. The importance of adolescents' participation in organized sport according to VO_2peak: a longitudinal study. Res Q Exerc Sport. 2018;89(2):143-152.
4. Özen G, Güneş B, Yalçın S, Yalçın SS. Mother-child pairsı eating and feeding behaviours in two different nutritional status from two distinct provinces. BMC Pediatr. 2024;24(1):25.
5. Lou D.W. Sedentary behaviors and youth: current trends and the impact on health. Active Living Research; La Jolla, CA, USA: 2014.
6. Kohl HW, Craig CL, Lambert EV, Inoue S, Alkandari JR, Leetongin G, et al. The pandemic of physical inactivity: global action for public health. Lancet. 2012;380(9838):294-305.
7. van Ekris E, Altenburg TM, Singh AS, Proper KI, Heymans MW, Chinapaw MJ. An evidence-update on the prospective relationship between childhood sedentary behaviour and biomedical health indicators: a systematic review and meta-analysis. Obes Rev. 2016;17(9):833-849. Erratum in: Obes Rev. 2017;18(6):712-714.
8. Atalay M. "Ben"=farkındalık. İstanbul Üniversitesi İlahiyat Fakültesi Dergisi. 2007;16:355-369.
9. Funk DC, James J. The psychological continuum model: a conceptual framework for understanding an individual's psychological connection to sport. Sport Management Review. 2001;4(2):119-150.
10. Uyar Y, Sunay H. Development of sports awareness scale: validity and reliability study. Spormetre. 2020;18(1):46-58.
11. Funk DC, James J. The psychological continuum model: an evolutionary perspective. A. Routledge Handbook of Theory in Sport Management. 1st ed,. Routledge: New York, 2015:247-260.
12. Uijtdewilligen L, Nauta J, Singh AS, van Mechelen W, Twisk JW, van der Horst K, et al. Determinants of physical activity and sedentary behaviour in young people: a review and quality synthesis of prospective studies. Br J Sports Med. 2011;45(11):896-905.
13. Sallis JF, Prochaska JJ, Taylor WC. A review of correlates of physical activity of children and adolescents. Med Sci Sports Exerc. 2000;32(5):963-975.
14. King AC, Parkinson KN, Adamson AJ, Murray L, Besson H, Reilly JJ, et al. Correlates of objectively measured physical activity and sedentary behaviour in English children. Eur J Public Health. 2011;21(4):424-431.
15. Faul F, Erdfelder E, Lang AG, Buchner A. G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. Behav Res Methods. 2007;39(2):175-191.
16. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. Behav Res Methods. 2009;41(4):1149-1160.
17. Şentürk HE. Sport-oriented attitude scale: development, validity and reliability. CBU Journal of Physical Education and Sport Sciences. 2015;7(2):8-18.
18. Turgut T, Erden NS. Olumsuz test ifadelerinin iç tutarlılığa ve faktör yapısına etkileri. İstanbul Üniversitesi İşletme Fakültesi Dergisi. 2013;42(2):319-332.
19. Valenzuela-Moss J, Sini M, Wren TAL, Edison BR. Changes in sports participation, specialization, and burnout from 7th to 12th grade: final results from a 6-year longitudinal study. Sports Health. 2024;16(2):177-183.
20. Black LI, Terlizzi EP, Vahratian A. Organized sports participation among children aged 6-17 years: United States, 2020. NCHS Data Brief. 2022;441.
21. Post EG, Rivera MJ, Doss D, Eberman LE. Higher levels of income and education are associated with more specialized sport participation behaviors: results from a representative sample of youth sport parents from the United States. Int J Sports Phys Ther. 2023;18(5):1196-1205.
22. Dimech S, Muscat-Inglott M. Exploring the relationship between socioeconomic status and sport participation in Maltese children: a cross-sectional short survey of mothers in relatively affluent households. Journal of Theory and Practice in Sport. 2023;2(1):1-22.
23. The national youth and sports policy document. 2013, Ankara. Available from:https://national-policies.eacea.ec.europa.eu/youthwiki/chapters/turkiye/13-national-youth-strategy. Accessed on: 20 Nov 2024.
24. Laursen B, Veenstra R. Toward understanding the functions of peer influence: a summary and synthesis of recent empirical research. J Res Adolesc. 2021;31(4):889-907.
25. Smith AL, Mellano KT. Three ways that peers matter in youth sport. Frontiers for Young Minds. 2022;10(5):685811.
26. Oja L, Piksööt J. Physical activity and sports participation among adolescents: associations with sports-related knowledge and attitudes. Int J Environ Res Public Health. 2022;19(10):6235.
27. Roth M, Stamatakis E. Linking young people's knowledge of public health guidelines to physical activity levels in England. Pediatr Exerc Sci. 2010;22(3):467-476.
28. Wang J, Wu S, Chen X, Xu B, Wang J, Yang Y, et al. Impact of awareness of sports policies, school, family, and community environmental on physical activity and fitness among children and adolescents: a structural equation modeling study. BMC Public Health. 2024;24(1):2298.
29. Uyar Y. Examining the sports awareness of regular sports practitioners. IJETSAR. 2023;8(22):910-926.
30. Koca Arıtan C, Bulgu N. Spor ve toplumsal cinsiyet genel bir bakış. Toplum ve Bilim. 2005;103:163-184.
31. Gould D, Walker L. Youth sport: meeting unique development needs of young athletes for preventing dropout. In: Anshel MH, Petrie TA, Steinfeldt JA (editors). APA handbook of sport and exercise psychology, volume 1: sport psychology. Washington, DC: American Psychological Association, 2019:151-177.
32. Manninen M, Campbell S. The effect of the Sport Education Model on basic needs, intrinsic motivation and prosocial attitudes: a systematic review and multilevel meta-nalysis. Eur Phy Educ Rev. 2022;28(1):78-99.
33. Lakicevic N, Gentile A, Mehrabi S, Cassar S, Parker K, Roklicer R, et al. Make fitness fun: could novelty be the key determinant for physical activity adherence? Front Psychol. 2020;11:577522.
34. Ganakas E, Peden AE. Exploring why young Australians participate in the sport of fencing: future avenues for sports-based health promotion. Health Promot J Austr. 2023;34(1):48-59.