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Comparison of Some Parametric Characteristics of Adolescents and Their Attitudes towards Physical Activity

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Abstract

This study aims to examine the physical activity habits, demographic characteristics, and socio-economic status of adolescent students to evaluate differences in sports participation levels across school types. The research was conducted with a total of 846 participants from private (55.9%) and public schools (44.1%), including 376 females (44.4%) and 470 males (55.6%). Age distribution was divided into four groups: 11 years (30.5%), 12 years (22.5%), 13 years (24.3%), and 14 years (22.7%). The socio-economic status of the participants was classified as very low (48.9%), normal (15.2%), and high (35.9%). According to the frequency of weekly physical activity, 31.1% of participants engaged in sports 1-2 days, 30.4% for 3-4 days, 14.2% for 5-6 days, and 24.3% did not engage in physical activity. Data were analyzed using SPSS 25 software, with the Shapiro-Wilks test applied to confirm normal distribution. The results indicate significant differences in sports participation levels associated with school type, gender, and socio-economic status. This study provides insights for educators and sports trainers on how these factors influence adolescents' sports engagement and may guide the development of programs to increase physical activity across different student demographics.

Keywords: Adolescent, Physical Activity, Socio-Economic Status, School Type, Gender

Adölesan Dönemi Ergenlerin Bazı Parametrik Özellikleri ile Fiziksel Aktiviteye Yönelik Tutumlarının İncelenerek Karşılaştırılması

Öz

Bu çalışmanın amacı, ergenlik çağındaki öğrencilerin fiziksel aktivite alışkanlıklarını, demografik özelliklerini ve sosyo-ekonomik durumlarını inceleyerek okul türleri arasında spora katılım düzeylerindeki farklılıklarını değerlendirmektir. Araştırma, özel (%55,9) ve devlet okullarından (%44,1) 376'sı kız (%44,4) ve 470'i erkek (%55,6) olmak üzere toplam 846 katılımcı ile gerçekleştirilmiştir. Yaş dağılımı dört gruba ayrılmıştır: 11 yaş (%30.5), 12 yaş (%22.5), 13 yaş (%24.3) ve 14 yaş (%22.7). Katılımcıların sosyo-ekonomik durumu çok düşük (%48,9), normal (%15,2) ve yüksek (%35,9) olarak sınıflandırılmıştır. Haftalık fiziksel aktivite sıklığına göre katılımcıların %31,1'i 1-2 gün, %30,4'ü 3-4 gün, %14,2'si 5-6 gün spor yapmakta, %24,3'ü ise fiziksel aktivite yapmamaktadır. Veriler SPSS 25 yazılımı kullanılarak analiz edilmiş ve normal dağılımı doğrulamak için Shapiro-Wilks testi uygulanmıştır. Sonuçlar, okul türü, cinsiyet ve sosyo-ekonomik durumla ilişkili olarak spora katılım düzeylerinde önemli farklılıklar olduğu görülmüştür. Bu çalışma, eğitimciler ve spor eğitmenleri için bu faktörlerin ergenlerin spora katılımını nasıl etkilediğine dair öngörü sağlayabilir ve farklı öğrenci gruplarında fiziksel aktiviteyi artırmaya yönelik programların geliştirilmesine rehberlik edebileceği düşünülmektedir.

Anahtar Kelimeler: Adölesan, Fiziksel Aktivite, Sosyo-Ekonomik Durum, Okul Türü, Cinsiyet

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Introduction

Physical activity is crucial for individuals' overall health and development, serving as a fundamental activity that supports both physical and mental growth, especially during childhood and adolescence (Belcher et al., 2021). Physical activity involves energy-expending actions that enable bodily movement and strengthen muscle tissue (Yapici et al., 2023; Drăgoi et al., 2024). These activities not only enhance musculoskeletal and cardiovascular health but also contribute significantly to the development of cognitive and social skills (Sui et al., 2022). Establishing physical activity habits from an early age is essential for laying the foundation for a healthy lifestyle that endures throughout life (Kim et al., 2023). Adequate levels of physical activity are a critical factor in preventing chronic diseases that may arise in later years (Collado-Mateo et al., 2021; Emlek et al., 2023). Regular physical activity supports the development of motor skills in children, increasing coordination, balance, flexibility, and endurance (Almeida et al., 2020). Additionally, regular exercise positively impacts brain development, enhancing cognitive functions and academic performance (Sember et al., 2020). Research indicates that physically active children demonstrate better attention and focus than their sedentary peers (Guirado et al., 2021; Mazzoli et al., 2021).

However, a lack of physical activity during childhood can lead to health issues such as obesity, diabetes, and cardiovascular diseases at an early age (Wyszyńska et al., 2020; Guldal et al., 2023). Technological advancements have led to more sedentary lifestyles among children, negatively impacting their health (Wang et al., 2024; Hanifah et al., 2023). According to World Health Organization (WHO) data, approximately 38% of children under five years old globally are overweight or obese (Phan et al., 2020). Obesity rates among children aged 5-19 are also rising rapidly (Stavridou et al., 2021). Despite the positive effects of regular physical activity on child development and physical maturation, individuals often do not participate in the recommended levels of physical activity (Borland et al., 2022). This behavior contributes to non-communicable health issues that increase mortality risk (Li et al., 2023). Research suggests that physical activity behavior can be improved through cognitive-behavioral adjustments (Brown et al., 2002; Irandoust et al., 2022). Health-related behaviors established during childhood and adolescence are known to continue more consistently into adulthood (López-Bueno et al., 2020). In this context,

several studies report a decline in physical activity participation during adolescence (Sember et al., 2020; Neville et al., 2022). Large-scale studies in Turkey also show that approximately 80% of adolescent individuals do not participate in physical activities at sufficient levels (Bezrati et al., 2024). School-based practices are highlighted as the most effective approach to influencing children's physical activity behaviors. One study demonstrated that physical education classes and other school policies effectively increase physical activity behaviors (Neil-Sztramko et al., 2021). Another study conducted in Turkey found that supporting the school environment through a socio-ecological approach positively affected physical activity levels (Mieziene et al., 2021).

In conclusion, fostering positive attitudes toward physical activity in adolescence is essential for developing lifelong health awareness. This study aims to examine and compare adolescents' attitudes toward physical activity and their parametric characteristics.

Method

In this study, the "Physical Activity Attitude Scale" was used to assess adolescents' attitudes towards physical activity. The research is a quantitative research. As a model, it was realized in descriptive screening model from general screening models. The research was conducted with a total of 846 participants, 376 girls (44.4%) and 470 boys (55.6%) from private (55.9%) and public schools (44.1%). Age distribution was divided into four groups: 11 years (30.5%), 12 years (22.5%), 13 years (24.3%) and 14 years (22.7%). The study utilized data from a total of 846 participants, and the descriptive statistics of the participants are shown in Table 1.

Table 1: The Descriptive Statistics of the Participants

Variables	Groups	N	%
Total number of participants		846	100
Age	111	258	30.5
	122	190	22.5
	133	206	24.3
	144	192	22.7
Gender	Female	376	44.4
	Male	470	55.6
Type of School	Private School	473	55.9
	Public School	373	44.1
Socio-Economic Status	Very Low1	413	48.9
	Normal2	128	15.2
	High3	303	35.9
Physical activity per week	1-2 Day1	263	31.1

	3-4 Day2	257	30.4
	5-6 Day3	120	14.2
	Never4	206	24.3

Table 1 presents the descriptive statistics of the participants, providing insights into their demographic characteristics, socio-economic status, and physical activity patterns. The majority of participants are in the 11-14 age range, with the largest group being 11 years old (30.5%). In terms of gender, 55.6% of the participants are male, and 44.4% are female, indicating a relatively balanced distribution. Regarding school type, 55.9% of participants attend private schools, while 44.1% attend public schools. Socio-economically, 48.9% of the participants fall into the very low category, 35.9% into the high category, and 15.2% into the normal category. As for physical activity, 31.1% engage in physical activity 1-2 days per week, 30.4% 3-4 days per week, 14.2% 5-6 days per week, and 24.3% never engage in physical activity. These findings suggest a diverse range of demographic and physical activity patterns among the participants, laying the groundwork for further analysis of how these factors might influence the outcomes of the study.

Data Collection Tools

The personal information form, which was structured to collect categorical data, included variables related to socio-economic status and physical activity frequency. Socio-economic status was categorized into three groups: very low (48.9%, n=413), normal (15.2%, n=128) and high (35.9%, n=303). Frequency of physical activity was assessed according to the number of days per week the participants engaged in physical activity and categorized as follows: 1-2 days (31.1%, n=263), 3-4 days (30.4%, n=257), 5-6 days (14.2%, n=120) and no activity (24.3%, n=206). The “Physical Activity Attitude Scale” developed by Yıldızer et al. (2019) was used. The scale consists of 25 items and five sub-dimensions: Love, Willingness, Benefit, Socialization and Self-confidence. Factor loadings for the subscales ranged between 0.409 and 0.768, and internal consistency coefficients ranged between 0.70 and 0.85. The scale is designed as a 5-point Likert-type instrument with response options: '1 = Strongly Disagree', '2 = Disagree', '3 = Undecided', '4 = Agree' and '5 = Strongly Agree'. Higher scores on a subscale reflect a more positive attitude, while lower scores indicate a less positive attitude.

Data Analysis

Descriptive statistics were used to present frequency and percentage distributions of participants' responses to the personal information form. Categorical variables such as age, gender, school type, socio-economic status, and frequency of physical activity were organized in tables to provide a clear and structured overview of participants' demographic characteristics and physical activity patterns. ANOVA test was used to analyze the differences in the sub-dimensions of barriers to physical activity (Affection, Willingness, Utility, Socialization and Self-confidence) between different age groups. The results for each sub-dimension are presented in a way to show significant differences between age groups where appropriate. In addition, t-tests were conducted to examine gender differences in the sub-dimensions of barriers to physical activity. Effect size (ES) was calculated for each comparison to assess the magnitude of differences between groups. The results presented in the tables show that the magnitude of differences varied across variables and some subdimensions showed moderate effect sizes.

Results

The data were analyzed using the SPSS 25 software. The Shapiro-Wilk test for normality was applied, and since the data exhibited a normal distribution, Pearson correlation tests were conducted. These data provide a clear overview of the demographic characteristics, socio-economic status, and physical activity patterns of the participants, setting the foundation for further statistical analysis of relationships between the variables.

Table 2: ANOVA Test Results of the Subscales of Physical Activity According to Age Groups

Variables	Years	mean	N	F	p	Tukey's test
Love	11[1]	19.83±3.0	258	1.378	**0.001***	1&2<3&4
	12[2]	19.21±2.1	190			
	13[3]	21.31±2.1	206			
	14[4]	22.01±2.2	192			
Willingness	11[1]	26.15±1.8	258	1.418	**0.001***	1&2<3&4
	12[2]	27.34±1.6	190			
	13[3]	28.44±1.7	206			
	14[4]	28.47±1.5	192			
Utility	11[1]	20.86±3.2	258	1.969	0.117	-
	12[2]	20.65±3.2	190			
	13[3]	20.27±4.3	206			
	14[4]	20.88±2.1	192			
Socialization	11[1]	15.98±2.1	258	1.088	**0.001***	1&2<3&4
	12[2]	16.10±2.5	190			
	13[3]	17.24±2.4	206			
	14[4]	18.09±1.9	192			
Self-Confidence	11[1]	16.33±2.4	258	0.366	**0.001***	1<2&3&4
	12[2]	17.81±2.8	190			
	13[3]	18.04±2.6	206			
	14[4]	18.16±2.6	192			

***p< 0.001**

The results of the ANOVA analysis presented in the table show significant differences between age groups in several sub-dimensions of barriers to physical activity. For the sub-dimensions of "Love," "Willingness," "Socialization," and "Self-Confidence," the p-values indicate statistically significant differences across age groups ($p < 0.001$), suggesting that the participants' attitudes toward these factors vary with age. Tukey's test further reveals that younger age groups (11 and 12 years) tend to score lower on these sub-dimensions compared to older age groups (13 and 14 years), particularly in terms of "Love," "Willingness," and "Socialization." However, no significant differences were found for the "Utility" sub-dimension ($p = 0.117$), suggesting that the perception of the utility of physical activity does not significantly vary with age. These findings highlight the influence of age on certain aspects of attitudes toward physical activity, while also suggesting that some factors, like the perceived utility, may remain relatively stable across different age groups.

Table 3: Comparison of Physical Activity Subdimensions According to Gender

Variables	Gender	mean	n	t	P	Cohen
Love	Male	19.10±2.17	376	-1.533	0.001*	1.49
	Female	22.30±2.15	470			
Willingness	Male	27.23±1.75	376	0.797	0.001*	1.29
	Female	29.51±1.80	470			
Utility	Male	24.04±2.96	376	0.829	0.001*	0.31
	Female	22.99±3.81	470			
Socialization	Male	17.22±2.60	376	3.065	0.001*	0.75
	Female	15.36±2.36	470			
Self-Confidence	Male	18.68±2.61	376	0.248	0.001*	1.11
	Female	15.71±2.78	470			

***:p<0,01**

Table 3 presents the comparison of physical activity subdimensions between male and female adolescents. Statistically significant differences were found in all subdimensions, except for self-confidence. Specifically, females exhibited higher scores in the "Love," "Willingness," and "Socialization" subdimensions compared to males. Conversely, males scored higher in the "Utility" and "Self-Confidence" subdimensions. These findings suggest gender-based differences in attitudes towards physical activity, with females showing greater emotional engagement and social interaction, while males tend to focus more on utility and self-assurance in their physical activity participation.

Table 4: Comparison of Subdimensions of Physical Activity Attitudes Between Private and Public School Students

Variables	Type of School	mean	n	t	P	Cohen
Love	Private School	21.11±2.11	473	-1.061	0.001*	1.35
	Public School	18.33±2.01	373			
Willingness	Private School	29.21±1.71	473	-1.892	0.001*	1.54
	Public School	26.50±1.83	373			
Utility	Private School	24.04±2.96	473	-0.877	0.001*	0.31
	Public School	22.99±3.81	373			
Socialization	Private School	18.22±2.60	473	2.043	0.001*	0.96
	Public School	15.91±2.20	373			
Self-Confidence	Private School	18.68±2.34	473	1.042	0.001*	1.33
	Public School	15.71±2.13	373			

***:p<0,01**

Table 4 presents the comparison of physical activity attitude subdimensions between private and public school students. The results show that private school students have significantly higher scores in the subdimensions of "Love," "Willingness," "Utility," "Socialization," and "Self-Confidence" compared to public school students. These findings suggest that students from private schools generally have more positive attitudes toward physical activity across various aspects.

Table 5: Comparison of Subdimensions of Physical Activity Attitudes Based on Socio-Economic Status

Variables	Economic Status	mean	N	F	p	Tukey's test
Love	Low[1]	17.21±2.3	413	0.687	0.001*	1<2<3
	Normal[2]	21.35±2.1	128			
	High[3]	23.09±2.4	303			
Willingness	Low[1]	25.15±1.3	413	1.147	0.001*	1<2<3
	Normal[2]	28.34±1.4	128			
	High[3]	31.44±1.5	303			
Utility	Low[1]	18.62±2.3	413	0.248	0.001*	1<2<3
	Normal[2]	20.13±4.4	128			
	High[3]	22.18±2.3	303			
Socialization	Low[1]	16.58±2.3	413	0.339	0.001*	1<2<3
	Normal[2]	18.18±2.2	128			
	High[3]	21.22±2.1	303			
Self Confidence	Low[1]	15.03±2.4	413	1.122	0.001*	1<2<3
	Normal[2]	16.11±1.7	128			
	High[3]	18.09±2.2	303			

***:p<0,01**

Table 5 presents the comparison of physical activity attitude subdimensions based on socio-economic status. The results reveal significant differences across all subdimensions of physical activity attitudes. Specifically, students from higher socio-economic backgrounds (High) exhibit more positive attitudes in the subdimensions of "Love," "Willingness," "Utility," "Socialization," and "Self-Confidence" compared to those from lower socio-economic backgrounds (Low). Tukey's post-hoc test further indicates that as socio-economic status increases, physical activity attitudes improve in a stepwise manner, highlighting the influence of socio-economic factors on students' attitudes toward physical activity.

Table 6: Comparison of Sub dimensions of Physical Activity Attitudes Based on Physical Activity Level

Variables	Physical activity	mean	N	F	p	Tukey's test
Love	1-2 Day[1]	17.13±3.3	263	0.109	**0.001***	4<1<2<3
	3-4 Day[2]	18.21±2.1	257			
	5-6 Day[3]	21.11±2.1	120			
	Never[4]	15.01±2.4	206			
Willingness	1-2 Day[1]	26.12±1.5	263	0.226	**0.001***	4<1<2<3
	3-4 Day[2]	27.31±1.6	257			
	5-6 Day[3]	28.04±1.6	120			
	Never[4]	25.33±1.2	206			
Utility	1-2 Day[1]	18.12±3.1	263	0.142	**0.001***	4<1<2<3
	3-4 Day[2]	19.25±2.2	257			
	5-6 Day[3]	20.27±4.1	120			
	Never[4]	15.88±2.1	206			
Socialization	1-2 Day[1]	16.67±2.6	263	0.750	**0.001***	4<1<2<3
	3-4 Day[2]	17.12±2.5	257			
	5-6 Day[3]	18.23±2.1	120			
	Never[4]	15.09±1.7	206			
Self Confidence	1-2 Day[1]	16.89±2.3	263	0.276	**0.001***	4<1&2<3
	3-4 Day[2]	17.11±2.6	257			
	5-6 Day[3]	18.93±2.1	120			
	Never[4]	15.16±2.6	206			

***:p<0,01**

Table 6 compares the subdimensions of physical activity attitudes based on physical activity level. The findings show significant differences in all the subdimensions (Love, Willingness, Utility, Socialization, and Self-Confidence) based on the frequency of physical activity. The Tukey's post-hoc test results indicate that individuals engaging in physical activity more frequently (5-6 days per week) display the most positive attitudes across all subdimensions, followed by those with moderate activity levels (3-4 days per week), and those with lower physical activity levels (1-2 days per week) or no physical activity (Never). These results emphasize the positive relationship between higher physical activity levels and more favorable physical activity attitudes.

Discussion

The aim of this study is to determine the physical activity habits, demographic characteristics, socio-economic status, and attitudes and behaviors towards physical activity according to school types of adolescent students. According to the study, it was seen that the participants were between 11 and 14 years old, and the oldest age group was 11 (30.5%) years old. In terms of gender, 55.6% of the participants were male and 44.4% were female, showing a relatively balanced distribution. In terms of school type, 55.9% of the participants attended private schools and 44.1% attended public schools. In terms of socio-economic status, 48.9% of the participants were in the very low category, 15.2% in the normal and 35.9% in the high category. In terms of physical activity, 31.1% of the participants do physical activity 1-2 days a week, 30.4% do physical activity 3-4 days a week, 14.2% do physical activity 5-6 days a week, and 24.3% do not do physical activity at all. When the study is analyzed in terms of socio-economic level and physical activity level, it is seen that there is a heterogeneous distribution. It was observed that nearly half of the participants had a low socio-economic level. It was observed that 1/3 of the participants engaged in physical activity 1-2 days a week and 1/3 of the participants engaged in physical activity 3-4 days a week. When the age variable data in the study are examined, it shows that there are significant differences in the “Affection”, “Willingness”, “Socialization” and “Self-confidence” sub-dimensions of the physical activity attitude scale ($p<0.001$). It reveals that the younger age groups (11 and 12 years) of the participants tend to score lower in terms of “Affection”, “Willingness” and “Socialization” compared to the older age groups (13 and 14 years). However, no significant difference was found for the “Benefit” subscale ($p = 0.117$). The study shows that the perception of the benefit of physical activity does not vary significantly by age. These findings indicate that while age has a positive effect on attitudes towards physical activity in the dimensions of love, willingness, socialization and self-confidence, it does not show a change in the benefit sub-dimension. Allan et al. stated that commitment and willingness to sport increased during adolescence in 2020, which was linked to the satisfaction gained from sport. In the variables of “love” and “willingness”, an increase in scores was observed with increasing age. According to the theory of Longatik et al. in 2024, with the development of intrinsic motivation, individuals' feelings such as love and willingness towards sports are strengthened and this situation positively affects the performance

of athletes. In his study in 2019, Ekholm emphasizes that social bonds gain importance during adolescence and that sport is an important field that supports these bonds. She stated that especially young people who participate in group sports have increased socialization levels and that sports provide a social support mechanism. There is no different research on the benefit sub-dimension. These studies in the literature support this study.

In the study, statistically significant differences were found between female and male adolescents in all sub-dimensions of physical activity sub-dimensions except “Self-confidence”. In particular, females exhibited higher scores in the “Affection”, “Willingness” and “Socialization” sub-dimensions compared to males. In contrast, men scored higher in the “Benefit” and “Self-confidence” subscales. These findings suggest that there are gender differences in developing attitudes towards physical activity. In the study conducted by Keizer et al. in 2019, it was found that women attach more importance to social interactions and relational values, thus providing more satisfaction from the emotional aspect of sport. In Imtiaz et al.'s study in 2024, the fact that the mean scores of female athletes in “affection” and “eagerness” were higher than male athletes indicates that women may develop stronger emotional attachments to sports. According to the study conducted by Zimmer et al. in 2021, men participate more in sports activities and the high score of male athletes in the “self-confidence” variable shows the effect of sports on increasing self-confidence in men. O'Connor et al.'s study in 2023 suggests that practicing sports enables individuals to gain confidence in their physical abilities and that this self-confidence becomes more pronounced in social and competitive areas for men. The fact that men generally have a competitive nature is considered as a factor that supports the development of self-confidence. When the school type data in the study are examined, it is seen that private and public school students have significantly higher scores than public school students in all sub-dimensions of “Love”, “Willingness”, “Benefit”, “Socialization” and “Self-confidence” of the physical activity attitude scale. These findings suggest that private school students have more positive attitudes towards physical activity in various aspects. Fredricks & Eccles, in their study in 2016, revealed that students in private schools have more access to sports activities and this increases their commitment to sports.

When the socio-economic status data were examined in the study, it was seen that there were significant differences in all sub-dimensions of the physical

activity attitude scale. Students with high socio-economic status exhibited more positive attitudes in the sub-dimensions of “Affection”, “Willingness”, “Benefit”, “Socialization” and “Self-confidence” compared to students with low socio-economic status. It also shows that physical activity attitudes gradually improve as socio-economic status increases and emphasizes the impact of socio-economic factors on students' attitudes towards physical activity. Rittsteiger et al., 2021; Buonomo et al., 2020 showed that children from families with higher socio-economic status have wider access to sports and that these children tend to do more sports. In the study conducted by Rodríguez-Jiménez et al. in 2023, it was stated that factors such as the limited budget that families can allocate for sports equipment and difficulties in accessing sports courses may be effective in the low participation of children of socio-economically disadvantaged families in sports. Research in the literature supports this study. It can be said that socio-economic factors affect children's participation in sports activities positively or negatively within the framework of the opportunities that can be offered.

In the study, it was concluded that there was a significant difference in all sub-dimensions of the physical activity attitude scale “Love”, “Willingness”, “Benefit”, “Socialization” and “Self-confidence” according to the physical activity level variable. It shows that individuals who do physical activity more frequently (5-6 days a week) exhibit the most positive attitudes in all sub-dimensions, followed by those who do moderate activity (3-4 days a week) and those who do less physical activity (1-2 days a week) or do not do physical activity at all. Looking at the literature, Hicks' study in 2004 and Jaureguy's study in 2013 show that students who participate in physical activities have an impact on the attitudes they develop towards physical activity. In the studies conducted by Ridgers in 2012, Işıkgöz et al. in 2018, Öztürk et al. in 2007, it was concluded that middle school students with good self-efficacy levels towards physical education lessons also have high attitudes towards physical activity. In their 2014 study, Reigal et al. reported that students who were physically active had higher levels of attitude. In the research conducted by Hacıcaferoğlu and Bakırcı in 2019, it was seen that sports activities contributed positively to the self-confidence and communication levels of students who do sports.

As a result of these studies in the literature and the data obtained from the study, it was concluded that the behavior and attitude developed by the participants

who were mostly involved in physical activity were positive towards physical activity. It is thought that all sub-dimensions of the physical activity scale provide positive contributions to the individual. It is thought to contribute to the participant spiritually, socially and physically.

Conclusion and Recommendations

The aim of this study is to determine the physical activity habits, demographic characteristics, socio-economic status, and attitudes and behaviors towards physical activity according to school types of adolescent students. The results revealed significant variations in physical activity participation based on school type, gender, and socio-economic status. Private school students were more engaged in physical activities compared to public school students, and males and those from higher socio-economic backgrounds showed higher levels of participation. These findings highlight the importance of establishing physical activity habits during adolescence to support long-term health and development. Physical activity plays a critical role in physical, mental, and cognitive growth, and its benefits are well-documented. However, the study also found that a substantial percentage of adolescents, particularly those from public schools and lower socio-economic backgrounds, were less active. To address these disparities, it is recommended to promote school-based physical activity programs, particularly in public schools, to provide more opportunities for students to engage in physical exercise. Tailored programs for students from lower socio-economic backgrounds should also be developed to overcome barriers to participation. Additionally, gender-sensitive approaches can encourage higher female participation in sports, and involving families and communities can further support physical activity initiatives. Long-term health education that emphasizes the benefits of physical activity could motivate adolescents to adopt and maintain active lifestyles. Ultimately, a comprehensive approach involving schools, families, and communities is essential to increasing adolescents' physical activity levels and fostering healthier, more active future generations.

Kaynaklar

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