2024, Retos, 61, 244-249

The contribution of physical education and sports attitudes to emotional intelligence: an examination of secondary school students

La contribución de las actitudes hacia la educación física y los deportes a la inteligencia emocional: un examen de los estudiantes de secundaria

*Murat Sarikabak, **Mert Ayranci, **Ebru Ayranci
*Bartın University (Türkiye), **Hitit University (Türkiye)

Abstract. The primary aim of this study was to examine the attitudes of secondary school students towards physical education and sports and their emotional intelligence levels. The study was conducted with 360 students. Data were collected using a personal information form and a voluntary consent form. Emotional intelligence was assessed with a 60-item measurement tool developed by Bar-On and adapted into Turkish by Köksal. Students' attitudes were measured using the 24-item "Physical Education and Sports Attitude Scale" developed by Demirhan and Altay. The data were analyzed with SPSS 25 program. Normality tests revealed that the data were normally distributed, so independent sample t-test and one-way analysis of variance (ANOVA) were used. The significance level was set at 0.05. Analyses revealed significant differences in physical education and sport attitude scores and emotional intelligence scores based on gender and participation in sport activities. In addition, significant differences were observed in emotional intelligence scores depending on the educational level of the parents. However, no significant differences were found in physical education and sport attitude scores depending on these variables. The findings were discussed in the light of the literature and recommendations were made.
Keywords: Secondary Education, Physical Education and Sports, Attitude, Emotional Intelligence

Resumen. El objetivo principal de este estudio fue examinar las actitudes de los estudiantes de secundaria hacia la educación física y el deporte, así como sus niveles de inteligencia emocional. El estudio se llevó a cabo con 360 estudiantes. Los datos se recopilaron mediante un formulario de información personal y un formulario de consentimiento voluntario. La inteligencia emocional se evaluó con una herramienta de medición de 60 ítems desarrollada por Bar-On y adaptada al turco por Köksal. Las actitudes de los estudiantes se midieron utilizando la "Escala de Actitud hacia la Educación Física y el Deporte" de 24 ítems desarrollada por Demirhan y Altay. Los datos se analizaron con el programa SPSS 25. Las pruebas de normalidad revelaron que los datos se distribuían normalmente, por lo que se utilizaron la prueba t para muestras independientes y el análisis de varianza de una vía (ANOVA). El nivel de significancia se estableció en 0,05. Los análisis revelaron diferencias significativas en las puntuaciones de actitud hacia la educación física y el deporte y en las puntuaciones de inteligencia emocional en función del género y la participación en actividades deportivas. Además, se observaron diferencias significativas en las puntuaciones de inteligencia emocional dependiendo del nivel educativo de los padres. Sin embargo, no se encontraron diferencias significativas en las puntuaciones de actitud hacia la educación física y el deporte en función de estas variables. Los resultados se discutieron a la luz de la literatura y se realizaron recomendaciones.
Palabras clave: Educación Secundaria, Educación Física y Deportes, Actitud, Inteligencia Emocional

Fecha recepción: 09-07-24. Fecha de aceptación: 03-09-24
Mert Ayranci
mertayranci@outlook.com

Introduction

Attitudes are among the main elements that guide decisions and choices in individuals' daily lives (Verplanken & Orbell, 2022). Choices such as selecting a meal, choosing an outfit or deciding which activities to attend reflect individuals' attitudes (Livingstone et al., 2021). Diversity of attitudes among different individuals and groups enriches social life and adds depth to human experiences (Cui, Wang & Zhang, 2023). If everyone had the same attitudes, many aspects of life would become monotonous (Yu, Gao & Wang, 2021). Therefore, differences in attitudes play an important role in the way individuals express their various perspectives and feelings (Mukhtar & Fook, 2020).

In the field of physical education and sport, understanding students' and teachers' attitudes is of great importance for more effective planning and evaluation of education (Zeng, Hipscher & Leung, 2011). Teachers strive to ensure that students develop positive attitudes towards physical education classes (García-Rico et al., 2021). These efforts aim to increase students' participation in physical activities during and after their school life (Pate & O'Neill, 2008). The importance of physical education is closely related to its capacity to improve students' attitudes towards physical activity (Hawkins et al., 2023).

Physical education is not only about ensuring physical fitness, it also has a holistic approach that provides students with the knowledge, skills and attitudes necessary to adopt a healthy lifestyle (Li, Huang & Li, 2021; Fenanlampir et al., 2024). Regular participation in physical activity is critical for students to develop a healthy lifestyle and schools are the most appropriate environments to support this process (Siskos, Proios & Lykesas, 2012). Research shows that regular physical activity has positive effects on brain function and improves memory, increases attention and supports psychological well-being (Biazus-Sehn et al., 2020).

Emotional intelligence (EI) is the ability of individuals to recognize and manage their own emotions, understand the emotions of others, and effectively manage interpersonal relationships (Rico-Gonzalez, 2023). Ain et al., (2021) defines emotional intelligence as a set of skills that contribute to success in social interactions and overall life satisfaction (Ain et al., 2021). These skills include stress management, adaptability and maintaining a positive outlook, which is of

great importance in educational settings (Li, Huang & Li, 2021). Leon et al., (2022) state that these skills support students' emotional and social development in the educational process (Leon et al., 2022).

Social activities that support both physical and mental mobility play an important role in children's emotional intelligence development (Marheni et al., 2024; Molina, Marti & Martinez, 2021). Activities such as playing sports and playing with friends increase children's emotional awareness and improve their ability to manage basic emotional states (Siskos, Proios & Lykesas, 2012). Such activities contribute significantly to children's general well-being (Mukhtar & Fook, 2020). Obrodovic, Stojilkovic & Todorovic (2023) argue that integrating sports activities that support emotional intelligence in early childhood into educational programs contributes to the construction of a conscious and empathetic society (Obrodovic, Stojilkovic & Todorovic 2023).

In this context, this study aims to examine the relationship between students' attitudes towards physical education and sports and their emotional intelligence levels (Wang et al., 2020). The aim of the study is to reveal the effects of emotional intelligence on physical education. Accordingly, the hypotheses of the study are as follows:

(1) Students' attitudes towards physical education and sports are positively related to their emotional intelligence levels,

(2) Emotional intelligence positively affects students' participation in physical education classes and their attitudes towards these classes.

Materials and Method

This study has a framework that includes the relational survey model within the survey (descriptive) model framework. In this context, the study examines the relationship between students' attitudes towards physical education and sports and their emotional intelligence levels. The relational survey model aims not only to describe the current situation in a certain period, but also to reveal the relationships between these situations. The reason for choosing survey methods for this research study is that it aims to reveal the existing situation in a certain group or population as it is (Creswell & Creswell, 2017).

Study Group

The study reached 394 secondary school students studying in different provinces. After removing erroneous and incompletely coded data, a total of 360 secondary school students were included in the analysis. Participants were selected using simple random sampling method.

Data Collection Tools

The data collection tools used in the study included a personal information form and a voluntary consent form prepared by the researchers. Emotional intelligence was measured using a 60-item scale developed by Bar-On (2000) for children and adolescents. This scale was adapted into Turkish by Köksal (2007). To measure students' attitudes, the "Physical Education and Sports Attitude Scale" developed by Demirhan & Altay (2001), consisting of 24 items (12 positive and 12 negative), was used.

Data Analysis

SPSS 25 software was used to evaluate and calculate the obtained data. Normality tests were applied to determine whether the data showed a normal distribution, and it was found that the data were normally distributed. Independent samples t-test and one-way analysis of variance (ANOVA) were used to analyze the data. The significance level was set at 0.05 for this study.

Results

This section presents the results of the data analysis conducted in the study.

Table 1.
Descriptive Statistics of Students

Variables		F	%
Gender	Male	168	46,7
	Female	192	53,3
Have you participated in any sports activities?	Yes	237	65,8
	No	123	34,2
Mother's Education Level	Literate	19	5,3
	Primary School	62	17,2
	Middle School	103	28,6
	High School	124	34,4
	University	52	14,4
Father's Education Level	Literate	15	4,2
	Primary School	41	11,4
	Middle School	88	24,4
	High School	140	38,9
	University	76	21,1
	Total	360	100,0

Upon examining Table 1, it can be seen that 168 of the participants are male and 192 are female. In response to the question "Have you participated in any sports activities?", 237 students answered yes, while 123 students answered no. Regarding the educational level of the students' mothers, 19 are literate, 62 have completed primary school, 103 have completed secondary school, 124 have completed high school, and 52 have graduated from university. As for the educational level of the students' fathers, 15 are literate, 41 have completed primary school, 88 have completed secondary school, 140 have completed high school, and 76 have graduated from university.

Table 2.
Comparison of Participants' Attitude Scores by Gender

	Gender	N	X	t	p
Attitude	Male	168	2,30	-2,749	,006
	Female	192	2,39		

In Table 2, the attitude scores of the participants are compared by gender. According to the analysis results, female students have significantly higher attitude scores towards physical education and sports ($p<0.05$). Table 3 presents the comparison of participants' emotional intelligence

scores by gender. According to the analysis results, there is a significant difference favoring female students in the interpersonal subscale and favoring male students in the positive affect subscale ($p<0.05$). However, there no statistically significant differences in other subscales and total scores ($p>0.05$).

Table 3.
Comparison of Participants' Emotional Intelligence Scores by Gender

	Gender	N	X	t	p
Interpersonel	Male	168	3,31	-2,057	,040
	Female	192	3,40		
Intrapersonel	Male	168	2,99	,830	,407
	Female	192	2,94		
Stress Management	Male	168	3,53	-,246	,806
	Female	192	3,54		
Adaptability	Male	168	3,01	,072	,942
	Female	192	3,00		
General Mood	Male	168	3,38	,388	,698
	Female	192	3,36		
Positive Effect	Male	168	2,64	3,410	,001
	Female	192	2,47		
Total Score	Male	168	3,22	,156	,876
	Female	192	3,22		

Table 4 compares the attitude scores of participants based on their response to the question "Have you participated in any sports activities?" According to the analysis results, students who answered no had significantly higher attitude scores ($p<0.05$).

Table 4.
Comparison of Participants' Attitude Scores by Participation in Sports Activities

	Have you participated in any sports activities?	N	X	t	p
Attitude Total Score	Yes	237	2,3231	,023	,009
	No	123	2,4123		

Table 5.
Comparison of Participants' Emotional Intelligence Scores by Participation in Sports Activities

	Have you participated in any sports activities?	N	X	t	p
Interpersonel	Yes	237	3,34	-,907	,365
	No	123	3,39		
Intrapersonel	Yes	237	3,00	1,444	,150
	No	123	2,90		
Stress Management	Yes	237	3,53	-,383	,702
	No	123	3,55		
Adaptability	Yes	237	3,05	2,338	,020
	No	123	2,91		
General Mood	Yes	237	3,38	,643	,520
	No	123	3,35		
Positive Effect	Yes	237	2,51	-2,257	,025
	No	123	2,63		
Total Score	Yes	237	3,22	,403	,687
	No	123	3,21		

Table 5 displays the comparison of participants' emotional intelligence scores based on their response to the question "Have you participated in any sports activities?" According to the analysis results, there is a significant difference favoring students who answered yes in the adaptability subscale and favoring students who answered no in the positive affect subscale ($p<0.05$). However, were no statistically significant differences in other subscales and total score ($p>0.05$). Table 6 compares the attitude scores of participants regarding physical education and sports by father's educational level. According to the analysis results, there is no statistically significant difference between students' attitude scores and their father's educational levels ($p>0.05$).

Table 6.
Comparison of Participants' Attitude Scores by Father's Educational Level

	Father's Education Level	N	X	SS	F	p	Significant Difference
Attitude Total Score	Literate	15	2,54	,37862	2,316	,057	-
	Primary School	41	2,39	,26517			
	Middle School	88	2,32	,32210			
	High School	140	2,32	,27517			
	University	76	2,38	,34612			

Table 7.
Comparison of Participants' Emotional Intelligence Scores by Father's Educational Level

		N	X	SS	F	p	Significant Difference
Interpersonal	Literate	19	3,31	,48399	,551	,698	
	Primary School	62	3,37	,44244			
	Middle School	103	3,31	,44947			
	High School	124	3,39	,41468			
	University	52	3,38	,47921			
Intrapersonal	Literate	19	2,99	,60214	,452	,771	
	Primary School	62	2,91	,71398			
	Middle School	103	2,95	,56670			
	High School	124	2,97	,52133			
	University	52	3,05	,62074			
Stress Management	Literate	19	3,53	,35704	3,764	,005	5>1,2
	Primary School	62	3,40	,53174			
	Middle School	103	3,51	,51820			
	High School	124	3,54	,48303			
	University	52	3,76	,52065			
Adaptability	Literate	19	2,82	,58460	3,999	,003	5>1,2
	Primary School	62	2,90	,59105			
	Middle School	103	2,93	,53279			
	High School	124	3,07	,45409			
	University	52	3,20	,57291			
General Mood	Literate	19	3,28	,43773	,520	,721	
	Primary School	62	3,32	,51956			
	Middle School	103	3,38	,45775			
	High School	124	3,40	,42773			
	University	52	3,38	,52724			
Positive Effect	Literate	19	2,57	,31089	1,338	,255	
	Primary School	62	2,50	,50046			
	Middle School	103	2,55	,51864			
	High School	124	2,61	,43502			
	University	52	2,45	,51167			
Total Score	Literate	19	3,16	,29043	1,993	,095	
	Primary School	62	3,15	,38483			
	Middle School	103	3,19	,33437			
	High School	124	3,25	,28759			
	University	52	3,30	,38883			

1.Literate, 2. Primary School, 3. Middle School, 4. High School, 5. University

Table 7 presents the comparison of participants' emotional intelligence scores by father's educational level. According to the analysis results, there is a statistically significant difference in the stress management and adaptability subscales ($p<0.05$). Post Hoc Tukey Test was conducted to determine which groups show this difference. The analysis indicates a significant difference favoring students whose fathers are university graduates compared to those whose fathers have completed primary school or secondary school. However, there no statistically significant differences in other subscales and total score ($p>0.05$). Table 8 presents

the comparison of participants' attitude scores by mother's educational level. According to the analysis results, there is no statistically significant difference between students' attitude scores and their mother's educational levels (p>0.05).

Table 8.
Comparison of Participants' Attitude Scores by Mother's Educational Level

	Mother's Education Level	N	X	SS	F	p	Significant Difference
Attitude Total Score	Literate	19	2,5351	,34702	2,409	,807	-
	Primary School	62	2,3784	,32523			
	Middle School	103	2,3434	,31335			
	High School	124	2,3360	,28323			
	University	52	2,3197	,31156			

Table 9.
Comparison of Participants' Emotional Intelligence Scores by Mother's Educational Level

		N	X	SS	F	p	Significant Difference
Interpersonal	Literate	15	3,2167	,37901	,773	,543	
	Primary School	41	3,3537	,47022			
	Middle School	88	3,3258	,48929			
	High School	140	3,3905	,40184			
	University	76	3,3893	,45203			
Intrapersonal	Literate	15	2,8333	,57044	,918	,454	
	Primary School	41	2,9268	,64339			
	Middle School	88	2,9205	,50475			
	High School	140	2,9726	,60063			
	University	76	3,0658	,62603			
Stress Management	Literate	15	3,3778	,50677	2,845	,024	5>1, 2
	Primary School	41	3,4533	,47655			
	Middle School	88	3,5170	,51233			
	High School	140	3,5161	,50079			
	University	76	3,7050	,51612			
Adaptability	Literate	15	2,8000	,64807	2,297	,059	
	Primary School	41	2,8463	,59207			
	Middle School	88	2,9841	,51123			
	High School	140	3,0493	,48168			
	University	76	3,0961	,58274			
General Mood	Literate	15	3,2571	,45401	,616	,651	
	Primary School	41	3,3815	,31486			
	Middle School	88	3,3596	,52595			
	High School	140	3,3613	,48448			
	University	76	3,4361	,43730			
Positive Effect	Literate	15	2,6111	,27936	,335	,855	
	Primary School	41	2,5894	,50428			
	Middle School	88	2,5076	,44198			
	High School	140	2,5655	,50008			
	University	76	2,5570	,50299			
Total Score	Literate	15	3,0900	,27852	1,951	,101	
	Primary School	41	3,1764	,32709			
	Middle School	88	3,1926	,35160			
	High School	140	3,2276	,33904			
	University	76	3,2989	,32167			

1.Literate, 2. Primary School, 3. Middle School, 4. High School, 5. University

Table 9 compares the participants' emotional intelligence scores by mother's educational level. According to the analysis results, there is a statistically significant difference in the stress management subscale (p<0.05). Post Hoc Tukey Test was conducted to determine which groups show this difference. The analysis indicates a significant difference favoring students whose mothers are university graduates compared to those whose mothers have completed primary school or secondary school in the stress management subscale. However, there no statistically significant differences in other subscales and total score (p>0.05).

Discussion and Conclusion

In this section, the findings of the study are evaluated together with other studies in the literature and the author's opinions are presented in the light of these evaluations.

As a result of the analysis of secondary school students' attitudes towards physical education and sports in terms of gender, it was found that the mean scores of female students were significantly higher (p<0.05). This finding is consistent with recent studies showing that female students develop more positive attitudes towards physical activities (Baceviciene & Jankauskiene, 2021). However, there are also studies indicating that male students have higher attitude scores (Shawaqfeh et al., 2020). This finding may be a result of the fact that female students approach physical education lessons more positively due to the influence of gender roles and cultural norms in society. Female students may feel the need to prove themselves physically by attaching more importance to this course.

When the emotional intelligence levels of secondary school students were examined based on gender, it was determined that female students showed a significant difference in the interpersonal subscale, while male students showed a significant difference in the positive impact subscale (p<0.05). No statistically significant difference was found in other subscales. In the literature, it is stated that higher emotional intelligence scores of female students allow them to communicate more effectively and better understand the emotional states of others (Ghamar et al., 2019). However, some studies suggest that boys have higher emotional intelligence scores than girls (Nadeem & Ahmad, 2016), while others suggest that there is no significant difference based on gender (Putri & Yusri, 2021). Based on these findings, we think that the effect of gender on emotional intelligence should be addressed together with cultural and environmental factors. Since male and female students are exposed to different social expectations, they may develop their emotional intelligence in different directions.

When students' attitude scores were compared according to their parental education levels, no statistically significant difference was found, while significant differences were observed in emotional intelligence scores. In the literature, there are various studies that support and do not support these findings (Gugliandolo et al., 2020; Kokkinos, & Vlavianou, 2021; Maxera et al., 2023). We can think that the effect of parental education level on students' emotional development is directly related to the emotional support and modeling provided by parents to their children. It is obvious that as parents' education levels increase, they can contribute more to children's emotional intelligence development; however, this may not be as evident in the effects on attitudes.

The findings of this study show that gender has a significant effect on students' attitudes towards physical education and sports and their emotional intelligence levels. It was found that female students developed more positive

attitudes towards physical education classes and scored higher in some sub-dimensions of emotional intelligence compared to male students. In addition, parents' level of education was found to have a significant effect on emotional intelligence, but no significant effect was found on attitudes towards physical education. These findings point to the need for educators and policy makers to develop more effective educational programs considering gender and family influence.

In conclusion, the findings of this study suggest that factors such as gender and parental education level have a significant impact on students' emotional and physical development. However, the fact that the study was conducted in a specific region and age group limits the generalizability of the findings. The use of the self-report method and the exclusion of other important variables such as socioeconomic status of parents may affect the accuracy of the results obtained. Therefore, future research in different regions and addressing variables more comprehensively will increase the generalizability and validity of these findings.

Conflict Interest

There is no personal or financial conflict of interest within the scope of the study.

Author Contributions

Study conception and design: MS, MA; Data Collection MA, EA; Analysis and Interpretation: MS, MA; Draft manuscript preparation: MS, MA, EA; All authors reviewed the results and approved the final version of the manuscript

References

Ain, N. U., Munir, M., & Suneel, I. (2021). Role of emotional intelligence and grit in life satisfaction. *Heliyon*, 7(4). https://doi.org/10.1016/j.heliyon.2021.e06829

Baceviciene, M., & Jankauskiene, R. (2021). Changes in sociocultural attitudes towards appearance, body image, eating attitudes and behaviours, physical activity, and quality of life in students before and during COVID-19 lockdown. *Appetite*, *166*, 105452. https://doi.org/10.1016/j.appet.2021.105452

Bar-On, R. (2000). Emotional and social intelligence: Insights from the Emotional Quotient Inventory (EQ-i). In R. Bar-On & J. D. Parker (Eds.), *Handbook of emotional intelligence: Theory, development, assessment and application at home, school and in the workplace* (pp. 363–388). Jossey-Bass.

Biazus-Sehn, L. F., Schuch, F. B., Firth, J., & de Souza Stigger, F. (2020). Effects of physical exercise on cognitive function of older adults with mild cognitive impairment: A systematic review and meta-analysis. *Archives of Gerontology and Geriatrics*, *89*, 104048. https://doi.org/10.1016/j.archger.2020.104048

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Cui, G., Wang, F., & Zhang, Y. (2023). Buffer or boost? the role of openness to experience and knowledge sharing in the relationship between team cognitive diversity and members' innovative work behavior. *Current Psychology*, *42*(29), 25233-25245. https://doi.org/10.1007/s12144-022-03633-7

Demirhan, G., & Altay, F. (2001). Attitude Scale II for high school students' physical education and sports. *Journal of Sports Sciences, 12*(2), 9-20.

Fenanlampir, A., Batlolona, J. R., Divinubun, S., & Leasa, M. (2024). Emotional skills with homogeneity psycho cognition strategy: A study of physical education in elementary schools. *Retos, 54*, 850-856.

García-Rico, L., Martínez-Muñoz, L. F., Santos-Pastor, M. L., & Chiva-Bartoll, O. (2021). Service-learning in physical education teacher education: A pedagogical model towards sustainable development goals. *International Journal of Sustainability in Higher Education*, *22*(4), 747-765. http://dx.doi.org/10.1108/IJSHE-09-2020-0325

Ghamar, M., Shamsolmolok, J., & Mohammad, F. (2019). The effect of emotional intelligence on communication skills of nursing students. *Iranian Journal of Psychiatric Nursing*, *7*(1), 27-32.

Gugliandolo, M. C., Costa, S., Cuzzocrea, F., Larcan, R., & Martino, G. (2020). Adolescents and body uneasiness: the contribution of supportive parenting and trait emotional intelligence. *Journal of Child and Family studies*, *29*, 2453-2462. https://doi.org/10.1007/s10826-020-01779-1

Hawkins, G. T., Chung, C. S., Hertz, M. F., & Antolin, N. (2023). The school environment and physical and social-emotional well-being: implications for students and school employees. *Journal of School Health*, *93*(9), 799-812. https://doi.org/10.1111/josh.13375

Kokkinos, C. M., & Vlavianou, E. (2021). The moderating role of emotional intelligence in the association between parenting practices and academic achievement among adolescents. Current Psychology, 40(9), 4333-4347. https://doi.org/10.1007/s12144-019-00343-5

Köksal, A. (2007). Developing a program to improve emotional intelligence in gifted children. Unpublished doctoral dissertation, Istanbul University, Istanbul.

Leon, I., Gamito, R., Vizcarra, M. T., & López-Vélez, A. L. (2022). Pedagogical Contexts When Gender and Emotions Intersect with the Body: Interviews with Feminist PE Teachers and Associated Professionals. International Journal of Envi-ronmental Research and Public Health, 19(23), 15510. https://doi.org/10.3390/ijerph192315510

Li, C., Huang, J., & Li, B. (2021). The predictive effects of classroom environment and emotional intelligence on foreign language enjoyment and anxiety. System, 96,

102393. https://doi.org/10.1016/j.system.2020.102393

Livingstone, K. M., Abbott, G., Lamb, K. E., Dullaghan, K., Worsley, T., & McNaughton, S. A. (2021). Understanding meal choices in young adults and interactions with demographics, diet quality, and health behaviors: A discrete choice experiment. The Journal of Nutrition, 151(8), 2361-2371. https://doi.org/10.1093/jn/nxab106

Marheni, E., Afrizal, S., Purnomo, E., Jermaina, N., & Cahyani, F. I. (2024). Integrating Emotional Intelligence and Mental Education in Sports to Improve Personal Resilience of Adolescents. *Retos: nuevas tendencias en educación física, deporte y recreación*, (51), 649-656. https://doi.org/10.47197/retos.v51.101053

Maxera, F. P., de Ojeda, D. M., Giménez, A. M., Pérez, J. J. V., & Martínez, I. J. (2023). Effects of a Sport Education Season of an Alternative Sport on School Climate, Emotional Intelligence, and Perceived Competence of Elementary School Students in a Culturally Diverse Context. *Retos: nuevas tendencias en educación física, deporte y recreación, (50)*, 1019-1028.

Molina, A. S., Martí, I. G., & Martínez, A. H. (2021). Percepción del profesorado de Educación Física sobre el Aprendizaje Cooperativo y su relación con la Inteligencia Emocional. *Retos: Nuevas tendencias en educación física, deporte y recreación, (41)*, 735-745.

Mukhtar, N. A., & Fook, C. Y. (2020). The Effects of Perceived Leadership Styles and Emotional Intelligence on Attitude toward Organizational Change among Secondary School Teachers. *Asian Journal of University Education*, *16*(2), 36-45.

Nadeem, N. A., & Ahmad, I. (2016). A study on the emotional intelligence and academic achievement of higher secondary students. *International Journal of Scientific Research and Education*, *4*(2), 4963-4972.

Obradović, V., Stojiljković, S., & Todorović, M. (2023). The Impact of Emotional Intelligence on Students with Extracurricular Activities and Regular Students. In *The International Conference on Artificial Intelligence and Applied Mathematics in Engineering* (pp. 79-87). Cham: Springer Nature Switzerland.

Pate, R. R., & O'Neill, J. R. (2008). Summary of the American Heart Association scientific statement: promoting physical activity in children and youth: a leadership role for schools. Journal of cardiovascular nursing, 23(1), 44-49.

Putri, M. L., & Yusri, Y. (2021). Differences in Students Emotional Intellegence Based on Gender. *Jurnal Neo Konseling*, *3*(1), 97-103. https://doi.org/.10.24036/00363kons2021

Rico-Gonzalez, M. (2023). Developing emotional intelligence through physical education: a systematic review. *Perceptual and Motor Skills*, *130*(3), 1286-1323. https://doi.org/10.1177/00315125231165162

Shawaqfeh, M. S., Al Bekairy, A. M., Al-Azayzih, A., Alkatheri, A. A., Qandil, A. M., Obaidat, A. A., ... & Muflih, S. M. (2020). Pharmacy students perceptions of their distance online learning experience during the COVID-19 pandemic: a Cross-Sectional Survey Study. *Journal of medical education and curricular development*, *7*, https://doi.org/10.1177/2382120520963039

Siskos, B., Proios, M., & Lykesas, G. (2012). Relationships between emotional intelligence and psychological factors in physical education. *Studies in Physical Culture & Tourism*, *19*(3).

García-Rico, L., Martínez-Muñoz, L. F., Santos-Pastor, M. L., & Chiva-Bartoll, O. (2021). Service-learning in physical education teacher education: A pedagogical model towards sustainable development goals. *International Journal of Sustainability in Higher Education*, *22*(4), 747-765. https://doi.org/http://dx.doi.org/10.1108/IJSHE-09-2020-0325

Verplanken, B., & Orbell, S. (2022). Attitudes, habits, and behavior change. Annual review of psychology, 73(1), 327-352. https://doi.org/10.1146/annurev-psych-020821-011744

Wang, K., Yang, Y., Zhang, T., Ouyang, Y., Liu, B., & Luo, J. (2020). The relationship between physical activity and emotional intelligence in college students: The mediating role of self-efficacy. *Frontiers in psychology*, *11*, 967. https://doi.org/10.3389/fpsyg.2020.00967

Yu, Z., Gao, M., & Wang, L. (2021). The effect of educational games on learning outcomes, student motivation, engagement and satisfaction. *Journal of Educational Computing Research*, *59*(3), 522-546. https://doi.org/10.1177/0735633120969214

Zeng, H. Z., Hipscher, M., & Leung, R. W. (2011). Attitudes of high school students toward physical education and their sport activity preferences. *Journal of Social Sciences*, *7*(4), 529.

Datos de los/as autores/as y traductor/a:

Murat Sarikabak	msarikabak@bartin.edu.tr	Autor/a
Mert Ayrancı	mertayranci@outlook.com	Autor/a
Ebru Ayranci	ebrucidemli97@gmail.com	Autor/a
Gönül Özüdoğru	ydyoceviri@selcuk.edu.tr	Traductor/a