



The Effect of Values Associated with Physical Education and Sports Classes on Achievement-Related Feelings in Early Adolescents

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Original Article

Abstract

The aim of this study was to examine the relationship between values associated with physical education and sports classes and achievement emotions in early adolescents, and to explore the associations between positive and negative achievement emotions and the value subdimensions of physical education and sports classes. The study was structured within the framework of quantitative research paradigms, employing a predictive correlational design to examine the reciprocal interactions between variables. The sample consisted of 409 high school students (172 females and 237 males) enrolled in public schools affiliated with the Turkish Ministry of National Education in Kahramanmaraş during the 2023–2024 academic year. Data were collected using the “Physical Education and Sports Class Values Scale for High School Students” and the “Achievement Emotions Scale for Physical Education.” Descriptive statistics, normality tests, and simple linear regression analyses were employed in the data analysis process. The findings indicated that positive achievement emotions were significantly and positively associated with all value subdimensions of physical education and sports classes. In particular, the strongest relationship was observed for the sports culture dimension compared with the other value subdimensions. Conversely, negative achievement emotions were found to be significantly and negatively associated with all value subdimensions. The strength of these relationships generally ranged from low to moderate levels, with the most pronounced associations observed in the achievement and sports culture dimensions. Overall, the results suggest that students’ achievement emotions in physical education and sports classes are closely related to their perceptions of values associated with these courses. Learning environments that support positive achievement emotions and reduce negative emotional experiences may be related to more favorable value perceptions among students. In this context, adopting value-based and student-centered instructional approaches in physical education classes may contribute to strengthening the value-oriented dimensions of the learning environment.

Keywords: *Physical education, Sense of achievement, Value orientations, Adolescents, Sportsmanship*

Genç Ergenlerde Beden Eğitimi ve Spor Dersine İlişkin Değerlerin Başarı Duygularına Etkisi

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Özet

Bu araştırmanın amacı, genç ergenlerde beden eğitimi ve spor dersine ilişkin değerler ile başarı duyguları arasındaki ilişkiyi incelemek ve pozitif ile negatif başarı duygularının beden eğitimi ve spor dersi değer alt boyutları ile olan ilişkisini ortaya koymaktır. Çalışma, değişkenler arasındaki karşılıklı etkileşimleri incelemek için öngörücü korelasyonel bir tasarım kullanan, nicel araştırma paradigmaları çerçevesinde yapılandırılmıştır. Çalışma grubunu, 2023–2024 eğitim-öğretim yılında Kahramanmaraş ilinde Millî Eğitim Bakanlığına bağlı liselerde öğrenim gören toplam 409 öğrenci (172 kız, 237 erkek) oluşturmaktadır. Verilerin toplanmasında “Beden Eğitimi ve Spor Dersi Lise Değerler Ölçeği” ile “Beden Eğitimi İçin Başarı Duyguları Ölçeği” kullanılmıştır. Verilerin analizinde betimsel istatistikler, normallik testleri ve basit doğrusal regresyon analizleri uygulanmıştır. Elde edilen bulgular, pozitif başarı duygularının beden eğitimi ve spor dersi değer alt boyutları ile anlamlı ve pozitif yönde ilişkili olduğunu göstermiştir. Özellikle spor kültürü alt boyutunda ilişkinin diğer alt boyutlara kıyasla daha güçlü olduğu belirlenmiştir. Buna karşılık, negatif başarı duygularının tüm değer alt boyutları ile anlamlı ve negatif yönde ilişkili olduğu saptanmıştır. Negatif başarı duygularına ilişkin ilişki düzeylerinin genel olarak düşük ve orta düzey arasında değiştiği, en belirgin ilişkinin ise başarı ve spor kültürü alt boyutlarında ortaya çıktığı görülmüştür. Sonuç olarak, beden eğitimi ve spor derslerinde öğrencilerin yaşadıkları başarı duyguları ile derse ilişkin değer algıları arasında anlamlı ilişkiler bulunduğu söylenebilir. Pozitif başarı duygularının desteklendiği ve olumsuz duygularının azaltıldığı öğrenme ortamlarının, öğrencilerin beden eğitimi ve spor dersine yönelik değer algılarıyla ilişkili olabileceği düşünülmektedir. Bu bağlamda, beden eğitimi derslerinde değer temelli ve öğrenci merkezli öğretim yaklaşımlarının benimsenmesi önerilmektedir.

Anahtar kelimeler: *Beden eğitimi, Başarı duyguları, Değer yönelimleri, Ergenler, Sportmenlik*

Introduction

Adolescence is widely recognized as a critical developmental stage characterized by rapid physical, cognitive, emotional, and social changes, during which individuals' value systems and perceptions of achievement are substantially restructured. In this period, the school environment—and particularly physical education and sports classes—plays a pivotal role not only in the development of physical competencies but also in shaping psychosocial development and value orientations. Physical education classes constitute distinctive educational settings in which values such as cooperation, respect, sportsmanship, responsibility, national identity, and sports culture can be acquired through experiential learning processes (Kuter & Kuter, 2012).

Contemporary literature emphasizes that physical education and sports classes serve as an effective medium for values education and exert meaningful influences on students' moral, social, and affective development (Arslan & Eren, 2022). In particular, the structured implementation of sporting activities has been shown to facilitate the internalization of values such as fair play, adherence to social norms, group cohesion, and mutual respect (Koyuncu & Erdoğan, 2023). Within this framework, the educational values embedded in physical education classes are closely associated with students' attitudes toward the course and their behavioural engagement.

In the context of the present study, values associated with physical education and sports classes refer to the social, moral, and educational values that students perceive or acquire through their participation in physical education activities. These values may include cooperation, respect, responsibility, fair play, and adherence to rules, which are commonly emphasized within physical education settings (Bailey, 2006).

Students' experiences in physical education and sports classes are not limited to the acquisition of values; they also influence students' motivational and affective processes through achievement-related emotions. According to Pekrun's Control-Value Theory, achievement emotions are emotions directly linked to achievement activities or their outcomes and arise from individuals' perceptions of control over learning activities and the subjective value they attribute to these activities (Pekrun, 2006). Achievement emotions constitute one of the key psychological variables shaping students' perceptions of the learning process, their level of classroom engagement, and their performance outcomes. Positive achievement emotions (e.g., pride, enjoyment, and pleasure) are known to enhance students' intrinsic motivation toward the course, whereas negative achievement emotions (e.g., anxiety, anger, hopelessness, and boredom) may hinder the learning process (Ceylan & Karlı, 2024).

The examination of achievement emotions within the context of physical education occupies a significant place in the sport psychology literature. Empirical evidence indicates that students' perceptions of achievement are directly related to the quality of the learning environment, instructional approaches, and the values emphasized within the course (Yaşın & Tan, 2023; Uslu & Özlü, 2022). Value-based learning environments are reported to promote positive emotional experiences toward the course, whereas competitive and pressure-oriented learning climates may increase negative achievement emotions. Despite this evidence, studies that

comprehensively and quantitatively examine the relationship between values associated with physical education and achievement emotions at the high school level in the Turkish context remain limited. Existing research has largely focused on variables such as attitudes, motivation, or academic achievement, while studies addressing values education and achievement emotions within an integrated model are relatively scarce (Keleş & Yoncalık, 2019; Özbek & Özbek, 2023). This gap underscores the need for a more detailed examination of the relationship between value acquisition and affective processes during adolescence.

Early adolescence represents a critical developmental stage in which value orientations begin to form and achievement-related emotions become increasingly salient in educational contexts (Eccles & Roeser, 2011; Pekrun, 2006). Therefore, this developmental period provides an appropriate context for examining the relationship between values associated with physical education and sports and achievement emotions. The purpose of the present study is to examine the relationship between values associated with physical education and sports classes and achievement emotions in early adolescents and to determine the extent to which positive and negative achievement emotions predict the value subdimensions of physical education and sports classes. It is anticipated that the findings will contribute to the development of value-based instructional approaches in physical education and support students within a positive achievement-oriented learning climate.

Materials and Methods

This study was structured within the framework of quantitative research paradigms, employing a correlational survey and predictive correlational design to determine the interaction between early adolescents' value perceptions toward physical education classes and their achievement emotions. The theoretical framework of the research is built upon the Control-Value Theory, which posits the central role of achievement emotions in learning outcomes and value attributions. In the established statistical model, achievement emotions (positive and negative) were operationalized as independent (predictor) variables, while the subdimensions of physical education and sports class values (achievement, respect, national culture and unity, sportsmanship, and sports culture) were positioned as dependent (outcome) variables. This design allowed for an empirical examination of not only the existence of relationships between variables but also the extent to which achievement emotions explain the total variance in value perceptions. Durbin-Watson coefficients, ranging between 1.90 and 1.99, confirm that the regression models are free from serious autocorrelation, thereby validating the statistical robustness of the predictive analysis.

The research was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki and received ethical approval from the Gümüşhane University Scientific Research and Publication Ethics Board, where the study was reviewed at the meeting dated 28/11/2025 and numbered 2025/9, and was unanimously approved as being in compliance with the relevant regulations.

Participants

The participants of the study were determined using a convenience sampling method. The target population consisted of early adolescent students enrolled in high schools affiliated with the Turkish Ministry of National Education during the 2023–2024 academic year. The sample

comprised students who were actively attending high schools in Kahramanmaraş province during the same academic year and who were selected based on accessibility. In determining the sample size, the practical calculation approach proposed by Tavşancıl (2014) was taken into consideration. According to this approach, achieving moderate levels of validity and reliability requires a sample size that is at least five times the total number of items included in the measurement instruments. Accordingly, given that the Physical Education and Sports Class Values Scale for High School Students consists of 28 items and the Achievement Emotions Scale for Physical Education comprises 24 items, a minimum of 260 participants was required. To minimize potential data loss and increase statistical robustness, efforts were made to reach the maximum possible number of participants. A total of 444 questionnaires were collected; however, prior to the statistical analyses, the dataset was screened for missing data, inconsistent response patterns, and potential outliers. Questionnaires containing substantial missing responses or invalid response patterns (e.g., marking the same response option across all items or inconsistent markings) were considered invalid and excluded from the dataset. Based on this data cleaning procedure, 35 datasets were removed from the analysis. Consequently, the final sample consisted of 409 students (172 females and 237 males), all of whom participated on a voluntary basis.

Table 1. Descriptive characteristics of the participants

Gender	Variable	n	Mean ($\bar{X}$)	S.D
Male	Age (years)	172	15.63	1.13
	Body weight (kg)		65.60	16.00
	Height (cm)		173.31	8.47
Female	Age (years)	237	15.56	1.22
	Body weight (kg)		54.07	8.52
	Height (cm)		161.34	6.44

Table 1 presents the descriptive characteristics of the participants by gender. The mean age of male students was 15.63 ± 1.13 years, while female students had a mean age of 15.56 ± 1.22 years. Male participants demonstrated higher mean values for body weight and height compared to female participants.

Data Collection Instruments

Prior to data collection, the participants were informed about the general purpose of the study and the procedures for completing the questionnaire forms. They were instructed to respond to the items honestly and individually, reflecting their typical behaviors in daily life. Participants were also assured that all data obtained from the questionnaires would be kept confidential and used solely for research purposes.

Personal Information Form

A Personal Information Form consisting of two items was used to collect demographic information such as age and gender.

Physical Education and Sports Class Values Scale for High School Students (PESCVS)

The Physical Education and Sports Class Values Scale for High School Students (PESCVS), developed and validated by Yücekaya et al. (2022), was used to collect data related to students'

value orientations in physical education. The scale consists of 28 items and five subdimensions, namely Achievement, Respect, National Culture and Unity, Sportsmanship, and Sports Culture. The instrument is structured on a 5-point Likert scale.

The overall internal consistency coefficient of the scale was reported as Cronbach's $\alpha = .87$. The Cronbach's α coefficients for the subdimensions were .80 for Achievement, .75 for Respect, .74 for National Culture and Unity, .73 for Sportsmanship, and .74 for Sports Culture. The scale is evaluated based on mean scores. The minimum possible score obtainable from the PESCVS is 28, while the maximum score is 140. The mean score for each participant is calculated by dividing the total score by the number of items, reflecting the participant's average value level.

The score intervals for the overall scale are interpreted as follows: 4.30–5.00 indicates a very high value level (“always”), 3.50–4.20 a high value level (“often”), 2.70–3.40 a moderate value level (“sometimes”), 1.90–2.60 a low value level (“rarely”), and 1.00–1.80 a very low value level (“never”).

Achievement Emotions Scale for Physical Education (AES-PE)

The Achievement Emotions Scale for Physical Education (AES-PE), originally developed by Fierro-Suero et al. (2020) and adapted into Turkish by Ceylan and Karlı (2024), was used to assess students' achievement-related emotions in physical education classes. The scale consists of 24 items and six subdimensions: Pride (Items 1–4), Enjoyment and Pleasure (Items 5–8), Anger (Items 9–12), Anxiety (Items 13–16), Hopelessness (Items 17–20), and Boredom (Items 21–24). All items are rated on a 5-point Likert scale.

Data Analysis

The data obtained in the study were analyzed using the SPSS 21.0 statistical software package. Prior to the main analyses, the assumptions of normality and homogeneity of variances were examined. The Kolmogorov–Smirnov test was used to assess the distribution of the variables. In addition, skewness and kurtosis values were evaluated to determine whether the data met the normality assumption (Büyüköztürk, 2020). Furthermore, Cronbach's α internal consistency coefficients were calculated for all measurement instruments used in the study.

Table 2. Descriptive Statistics, Normality, and Reliability Analyses of the Measurement Scales (n = 409)

Scale / Subdimension			No. of Items	Mean ($\bar{X}$)	SD	Cronbach's α	Skewness	Kurtosis
Achievement Emotions Scale ($\alpha = .842$)	Positive Emotions ($\alpha = .928$)	Pride	4	15.53	4.12	.890	-1.021	.468
		Enjoyment	4	15.53	4.16	.873	-1.111	.650
	Negative Emotions ($\alpha = .941$)	Anger	4	9.29	4.32	.792	.593	-.495
		Anxiety	4	9.53	4.49	.820	.603	-.577
		Hopelessness	4	8.49	4.73	.893	.862	-.406
		Boredom	4	7.95	4.96	.948	1.082	-0.71
Physical Education and Sports Class Values	Sports Culture		7	27.13	6.96	.856	-.954	.431
	Sportsmanship		5	20.87	4.71	.823	-1.199	.813
	National Culture and Unity		4	13.91	4.48	.831	-.270	-.854
	Respect		5	18.85	4.97	.888	-.588	-.412

Scale ($\alpha = .943$)	Achievement	7	28.40	5.72	.895	-.906	.674
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Inspection of the normal distribution curves indicated that skewness and kurtosis values for all variables fell within the ± 2 range. In line with the criteria proposed by George and Mallery (2010), values within this interval suggest no severe deviations from normality. Accordingly, the data were assumed to follow a normal distribution, and parametric statistical analyses were applied. To examine the presence, direction, and strength of the relationships between the two measurement scales, regression analyses were conducted.

Results

Table 3. Regression analysis of positive achievement emotions predicting subdimensions of physical education and sports class values (n = 409)

Dependent Variable	Predictor	B	SE	β	R^2	t	p	Durbin-Watson
Achievement	Positive Achievement Emotions	0.622	0.061	.453	.183	10.245	< .001	1.905
Respect	Positive Achievement Emotions	0.585	0.073	.370	.137	8.039	< .001	1.935
National Culture and Unity	Positive Achievement Emotions	0.703	0.080	.400	.160	8.815	< .001	1.972
Sportsmanship	Positive Achievement Emotions	0.588	0.077	.352	.124	7.596	< .001	1.910
Sports Culture	Positive Achievement Emotions	0.665	0.045	.590	.348	14.736	< .001	1.990

Note. B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient. All regression models were statistically significant ($p < .001$). Durbin-Watson values indicated no serious autocorrelation.

The regression analysis results presented in Table 3 examine the predictive power of positive achievement emotions on the subdimensions of values associated with physical education and sports classes. Separate regression analyses were conducted for each value subdimension. The findings indicate that positive achievement emotions exert a significant and meaningful influence on all examined value dimensions. For the Respect subdimension, the regression analysis revealed that positive achievement emotions were a significant predictor ($\beta = 0.370$, $p < .001$). The model demonstrated a moderate level of explanatory power ($R = .370$, $R^2 = .137$) and was statistically significant ($F(1, 407) = 64.626$, $p < .001$). The Durbin-Watson coefficient of 1.935 indicated no evidence of autocorrelation among the residuals. Regarding the National Culture and Unity subdimension, the results showed that positive achievement emotions had a significant and moderate effect ($\beta = 0.400$, $p < .001$). The model explained 16% of the total variance ($R = .400$, $R^2 = .160$) and was statistically significant ($F(1, 407) = 77.709$, $p < .001$). The Durbin-Watson value (1.972) supported the adequacy of the model assumptions. The findings for the Sportsmanship subdimension similarly indicated that positive achievement emotions were a significant predictor ($\beta = 0.352$, $p < .001$). The model exhibited a moderate explanatory capacity ($R = .352$, $R^2 = .124$) and reached statistical significance ($F(1, 407) = 57.704$, $p < .001$). A Durbin-Watson coefficient of 1.910 confirmed the independence of the error terms. In the regression analysis for the Sports Culture subdimension, positive

achievement emotions emerged as a strong predictor ($\beta = 0.590$, $p < .001$). This model accounted for 34.8% of the variance, representing the highest explanatory power among all subdimensions ($R = .590$, $R^2 = .348$), and was statistically significant ($F(1, 407) = 217.145$, $p < .001$). The Durbin–Watson value of 1.990 indicated the absence of autocorrelation issues. Overall, the results suggest that positive achievement emotions exert significant, positive effects on all value subdimensions addressed within physical education and sports classes, with effect sizes ranging from moderate to high. These findings highlight that students’ positive achievement-related perceptions toward physical education constitute an important psychosocial determinant in the internalization of values such as respect, sportsmanship, national culture, collective engagement, and sports culture.

Table 4. Regression analysis of negative achievement emotions predicting subdimensions of physical education and sports class values (n = 409)

Dependent Variable	Predictor	B	SE	β	R^2	t	p	Durbin–Watson
Achievement	Negative Achievement Emotions	–0.878	0.131	–.316	.100	–6.708	< .001	1.927
Respect	Negative Achievement Emotions	–0.522	0.108	–.163	.027	–3.337	.001	1.938
National Culture and Unity	Negative Achievement Emotions	–0.369	0.175	–.104	.011	–2.103	.036	1.945
Sportsmanship	Negative Achievement Emotions	–0.902	0.161	–.267	.071	–5.586	< .001	1.915
Sports Culture	Negative Achievement Emotions	–0.679	0.108	–.297	.088	–6.274	< .001	1.974

Note. B = unstandardized regression coefficient; SE = standard error; β = standardized regression coefficient. All regression models were statistically significant. Durbin–Watson values indicated no serious autocorrelation.

The regression analysis results presented in Table 4 reveal the extent to which negative achievement emotions predict value subdimensions within the context of physical education and sports classes. Separate regression models were conducted for each value subdimension. The findings demonstrate that negative achievement emotions exert significant and negative effects across all examined value dimensions. For the Achievement subdimension, the regression analysis indicated that negative achievement emotions were a significant and moderate predictor ($\beta = -0.316$, $p < .001$). The model explained 10% of the variance ($R = .316$, $R^2 = .100$) and was statistically significant ($F(1, 407) = 44.999$, $p < .001$). The Durbin–Watson coefficient of 1.927 suggested no significant autocorrelation among the residuals. With respect to the Respect subdimension, the results showed that negative achievement emotions had a low but statistically significant effect ($\beta = -0.163$, $p = .001$). Although the explanatory power of the model was limited ($R = .163$, $R^2 = .027$), the regression model reached statistical significance ($F(1, 407) = 11.134$, $p = .001$). The Durbin–Watson value (1.938) supported the adequacy of the regression assumptions. In the analysis of the National Culture and Unity subdimension, negative achievement emotions emerged as a low-level but negative predictor ($\beta = -0.104$, $p = .036$). The model accounted for a relatively small proportion of the variance ($R = .104$, $R^2 = .011$); nevertheless, it was statistically significant ($F(1, 407) = 4.422$, $p = .036$). A Durbin–

Watson coefficient of 1.945 confirmed the independence of the error terms. The findings related to the Sportsmanship subdimension indicated that negative achievement emotions were a moderate and significant predictor ($\beta = -0.267$, $p < .001$). The model explained 7.1% of the total variance ($R = .267$, $R^2 = .071$) and was statistically significant ($F(1, 407) = 31.199$, $p < .001$). The Durbin–Watson value of 1.915 further supported the fulfillment of regression assumptions.

Finally, in the regression analysis for the Sports Culture subdimension, negative achievement emotions demonstrated a significant and moderate negative effect ($\beta = -0.297$, $p < .001$). The model accounted for 8.8% of the variance ($R = .297$, $R^2 = .088$) and was statistically significant ($F(1, 407) = 39.368$, $p < .001$). The Durbin–Watson coefficient of 1.974 indicated the absence of autocorrelation problems.

Overall, the results suggest that negative achievement emotions exert significant and adverse effects on all value subdimensions examined within physical education and sports classes. These findings imply that students' perceptions of failure, heightened anxiety, and negative affective states may be associated with a weakening of attitudes and behaviours related to sportsmanship, respect, national values, collective engagement, and sports culture. Consequently, fostering a positive achievement climate in physical education classes appears to be critical for strengthening values education and supporting students' psychosocial development.

Discussion

The findings of the present study indicate that achievement emotions experienced in physical education and sports classes are significantly associated with students' perceptions of the values targeted for development within these courses. In particular, positive achievement emotions were found to be positively related to value dimensions such as respect, sportsmanship, national culture, and sports culture, whereas negative achievement emotions were negatively related to these value orientations. These findings suggest that the learning climate established in physical education classes extends beyond physical performance outcomes and is closely related to students' value perceptions through affective experiences. Accordingly, understanding how achievement emotions are experienced within the context of physical education may provide important insights into the affective processes associated with values education.

Evidence from the literature regarding the role of achievement emotions in physical education is largely consistent with the findings of the present study. Achievement emotions have been widely reported to be associated with students' performance, motivation, and learning processes, with positive emotions being linked to higher levels of engagement and motivation, whereas negative emotions are associated with reduced engagement in learning activities. A recent meta-analysis reported a positive association between positive emotions and achievement ($\rho = .27$), as well as negative associations between achievement and emotions such as anger ($\rho = -.35$) and boredom ($\rho = -.25$) (Camacho-Morles et al., 2021). Similarly, research conducted in physical education contexts has shown that intrinsic motivation is strongly associated with positive achievement emotions, whereas negative achievement emotions are linked to lower levels of participation and engagement in learning activities (Işıkgöz, 2025).

These findings align with the results of the present study, which indicate that positive achievement emotions are positively related to students' perceptions of values in physical education, whereas negative emotions show the opposite pattern of association.

When the mechanisms underlying the relationships between achievement emotions and value perceptions are considered in light of existing literature, positive emotions appear to be associated with higher levels of engagement in learning activities and greater self-confidence among students. Evidence from systematic reviews indicates that participation in physical activity is related to increased positive affect among children and adolescents, which in turn is associated with beneficial outcomes in areas such as social relationships, personal development, and learning processes (Li et al., 2022). Conversely, higher levels of negative achievement emotions are often associated with lower motivation and reduced engagement in classroom activities, a pattern that has been linked to lower academic achievement in various educational contexts (Camacho-Morles et al., 2021). Within this framework, the present findings contribute to the literature by highlighting the relationship between students' affective experiences in physical education and their perceptions of value-related constructs.

The findings also correspond with theoretical and empirical research emphasizing that students' affective experiences in physical education are closely related to value-oriented learning processes. According to the control–value theory of achievement emotions, students' emotions are shaped by their perceptions of control and the value they attribute to learning activities, and these emotions are closely linked to motivation, engagement, and learning outcomes (Pekrun, 2006; Pekrun & Perry, 2014). Empirical studies in physical education contexts have similarly shown that positive emotions are associated with greater levels of participation, social interaction, and task orientation, whereas negative emotions are related to avoidance behaviors, reduced motivation, and limited engagement in learning tasks (Quested et al., 2021; Simonton & Garn, 2022). From the perspective of values education, such affective processes are considered important contextual factors associated with the internalization of values such as sportsmanship, respect, and responsibility (Hellison et al., 2025). In this respect, the present findings highlight the importance of conceptualizing physical education classes not only in terms of motor and physical outcomes but also as environments in which affective experiences and value perceptions are closely intertwined.

The findings of this study should be interpreted in light of several limitations. First, the study employed a cross-sectional, quantitative design, which precludes causal inferences regarding the relationships between achievement emotions and values in physical education and sports classes. Although the results reveal directional associations between variables, they do not capture the dynamic nature of these relationships over time. Second, the study sample consisted of high school students from a single province, which limits the generalizability of the findings to students from different geographical regions, socio-cultural contexts, or educational systems. Additionally, the use of convenience sampling may be considered a limitation in terms of external validity. Third, certain socio-demographic variables that may influence students' emotional experiences and value orientations in physical education classes—such as grade level, school type, and frequency of sports participation—were not included in the data collection process. Future studies may benefit from incorporating these variables to provide a

more comprehensive understanding of the factors influencing achievement emotions and values in physical education contexts. Finally, the analyses in this study were conducted using separate simple regression models. Since the value subdimensions may be interrelated, analyzing each dimension independently may not fully capture the shared variance among them. Future research may employ multiple regression models to examine the unique predictive effects of each value dimension on achievement emotions while controlling for the effects of other value dimensions.

Fifth, all measurement instruments were based on self-report data, which may be susceptible to response biases such as social desirability, perceptual bias, and individual differences in interpretation. In particular, the assessment of achievement emotions relies on subjective evaluations of affective states, which may not fully capture situational or momentary emotional experiences. Another limitation concerns the exclusive use of linear regression analyses. Given the multidimensional and complex nature of the relationship between values and achievement emotions, more advanced statistical approaches—such as structural equation modelling or multilevel analyses—could provide a more comprehensive understanding of these relationships. Finally, contextual variables related to physical education classes, including teaching methods, teacher characteristics, lesson content, and school climate, were not controlled for in the analyses. As these factors may influence both achievement emotions and value orientations, the findings should be interpreted with caution and not considered independent of such contextual influences.

Conclusions

The findings of this study indicate that achievement emotions play a decisive role in the acquisition of values associated with physical education and sports classes among early adolescents. Positive achievement emotions were found to exert significant and strengthening effects, particularly on value subdimensions such as sports culture, sportsmanship, respect, and national culture and unity, whereas negative achievement emotions adversely affected the internalization of these values. These results demonstrate that the learning climate created in physical education and sports classes is not limited to physical performance outcomes but also serves as a critical determinant of students' affective development and value orientations.

Accordingly, the adoption of value-based and student-centered instructional approaches that foster positive achievement emotions while reducing anxiety and negative affect appears essential for enhancing the educational quality of physical education classes and promoting sustainable value acquisition. Creating learning environments that support students' positive emotional experiences may therefore contribute not only to improved engagement and motivation but also to the long-term internalization of core educational values within physical education and sports contexts.

Ethics Committee Approval Information

This study received ethical approval from the Gümüşhane University Scientific Research and Publication Ethics Board, where the research proposal was reviewed at the meeting dated

28/11/2025 and numbered 2025/9, and was unanimously approved as being in compliance with the relevant regulations.

Author Contributions

The author solely contributed to the conceptualization, study design, data collection, data analysis, interpretation of results, and the writing of all sections of the manuscript, including the Introduction, Methods, Results, Discussion, and Conclusion.

Conflict of Interest Statement

The author declares no conflicts of interest related to this study.

References

- Arslan, S., & Eren, D. İ. (2022). Beden eğitimi ve spor dersinin değerler eğitimine katkısının incelenmesi. *Uluslararası Güncel Eğitim Araştırmaları Dergisi*, 8(1), 29–43.
- Bailey, R. (2006). Physical education and sport in schools: A review of benefits and outcomes. *Journal of school health*, 76(8), 397-401.
- Büyüköztürk, Ş. (2020). *Sosyal bilimler için veri analizi el kitabı* (28.). Pegem Akademi. <https://doi.org/10.145279789756802748>
- Camacho-Morles, J., Slemp, G. R., Pekrun, R., Loderer, K., Hou, H., & Oades, L. G. (2021). Activity achievement emotions and academic performance: A meta-analysis. *Educational Psychology Review*, 33(3), 1051-1095. <https://doi.org/10.1007/s10648-020-09585-3>
- Ceylan, M., & Karlı, Ü. (2024). Adaptation of the Achievement Emotions Questionnaire for Physical Education (AEQ-PE) to the Turkish language. *Journal of Sport Sciences Research*, 9(2), 132–148.
- Eccles, JS ve Roeser, RW (2011). Ergenlik döneminde okullar gelişimsel bağlamlar olarak. *Ergenlik üzerine araştırma dergisi*, 21 (1), 225-241.
- Fierro-Suero, S., Almagro, B. J., & Sáenz-López, P. (2020). Validation of the achievement emotions questionnaire for physical education (AEQ-PE). *International Journal of Environmental Research and Public Health*, 17(12), 1–12. <https://doi.org/10.3390/ijerph17124560>
- George, D., and Mallery, M. (2010). *SPSS for Windows Step by Step: A Simple Guide and Reference*, 17.0 Update, 10th Edition, Pearson, Boston.
- Hellison, D., Hellison, D. R., Wright, P. M., Martinek, T. J., & Walsh, D. S. (2025). *Teaching personal and social responsibility through physical activity*. Human Kinetics.
- Işıkgöz, M. E. (2025). Intrinsic vs. extrinsic motivation in high school physical education: Which fuels adolescent achievement emotions better?. *PloS one*, 20(6), e0327393. <https://doi.org/10.1371/journal.pone.0327393>
- Keleş, M., & Yoncalık, O. (2019). Beden eğitimi ve spor dersi ve ilköğretim sekizinci sınıf öğrencilerinde değerler eğitimi. *Beden Eğitimi ve Spor Bilimleri Dergisi*, 13(3), 230-237.
- Koyuncu, S., & Erdoğan, B. S. (2023). Beden Eğitimi ve Spor Yüksekokulunda Farklı Bölümlerinde Öğrenim Gören Öğrencilerin Değer Yönelimleri Üzerine Bir Araştırma. *Uluslararası Türk Spor ve Egzersiz Psikolojisi Dergisi*, 3(2), 1–18.
- Kuter, F.Ö., Kuter, M. (2012). Beden eğitimi ve spor yoluyla değerler eğitimi. *Eğitim ve İnsani Bilimler Dergisi*, 3(6), 75-94.

- Li, J., Huang, Z., Si, W., & Shao, T. (2022). The effects of physical activity on positive emotions in children and adolescents: a systematic review and meta-analysis. *International journal of environmental research and public health*, 19(21), 14185. <https://doi.org/10.3390/ijerph192114185>
- Özbek, S., & Özbek, E. (2023). Lise Öğrencilerinin Beden Eğitimi Ve Spor Dersine İlişkin Değerlerinin Bazı Değişkenlere Göre İncelenmesi. *Akdeniz Spor Bilimleri Dergisi*, 6(1-Cumhuriyet'in 100. Yılı Özel Sayısı), 946-957.
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational psychology review*, 18(4), 315-341.
- Pekrun, R., & Perry, R. P. (2014). *Control-value theory of achievement emotions. In International handbook of emotions in education* (pp. 120-141). Routledge.
- Quested, E., Kritz, M., Hancox, J. E., Ntoumanis, N., & Thøgersen-Ntoumani, C. (2021). *Promoting self-determined motivation for physical activity: From theory to intervention work*. Essentials of exercise and sport psychology: An open access textbook, 37-61.
- Simonton, K. L., & Garn, A. C. (2022). Emotion and motivation consequences of attributional training during a novel physical task. *Research Quarterly for Exercise and Sport*, 93(2), 219-229.
- Uslu, E., & Özlü, K. (2022). Ortaokul öğrencilerinin beden eğitimi ve spor dersine yönelik tutumları ile beden eğitimi dersindeki mutluluk düzeylerinin incelenmesi. *Gaziantep Üniversitesi Spor Bilimleri Dergisi*, 7(3), 287-306.
- Tavşancıl, E. (2014). *Measuring attitudes and data analysis with SPSS*. Tutumların ölçülmesi ve spss ile veri analizi. Ankara: Nobel Yayınları.
- Yaşın, İ., & Tan, M. (2023). Ortaokul öğrencilerinin beden eğitimi ve spor dersine yönelik değer düzeylerinin incelenmesi. *Milli Eğitim Dergisi*, 52(240), 2887-2902.
- Yücekaya, M. A., Sağın, A. E., & Güllü, M. (2022). Beden eğitimi ve spor dersi lise değer ölçeği: Geçerlik ve güvenirlik çalışması. *Journal of Sport Sciences Research*, 7(2), 252-266.



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