



Article

The Role of Physical Activity and School Physical Education in Enhancing School Satisfaction and Life Satisfaction

José E. Moral-García ¹, Alfredo Jiménez ^{2,*}, Antonio S. Cabaco ^{3,*} and Alfredo Jiménez-Eguizabal ⁴

¹ Ciencias de la Actividad Física y del Deporte, Facultad de Educación, Universidad Pontificia de Salamanca, Calle Henry Collet, 52-70, 37007 Salamanca, Spain; jemoralga@upsa.es

² Department of Management, KEDGE Business School, 31405 Talence, Bordeaux, France

³ Facultad de Psicología, Universidad Pontificia de Salamanca, Compañía 5, 37002 Salamanca, Spain

⁴ Facultad de Educación, Universidad de Burgos, Calle Villadiego, s/n, 09001 Burgos, Spain; ajea@ubu.es

* Correspondence: alfredo.jimenez@kedgebs.com (A.J.); asanchezca@upsa.es (A.S.C.)

Abstract: The aim of this study was to understand the role of school satisfaction on life satisfaction, according to gender, age, body mass index (BMI), and physical activity (PA) level. This was a cross-sectional descriptive study, carried out on 2823 adolescents (1396 boys and 1427 girls), aged between 12 and 16. A specific questionnaire to measure life satisfaction (Brief Multidimensional Student Life Satisfaction Scale (BMSLSS)), a questionnaire to measure satisfaction with school (“Life circumstances of Young people: School”), and the International Physical Activity Questionnaire (IPAQ) were used to analyze PA practice. Gender, age, and BMI were used as control variables. In general, the main results showed that school satisfaction had a clear role in life satisfaction. Similarly, the findings allowed us to conclude that the role of school satisfaction on life satisfaction was more evident in male school children, those who were older, or those who have a higher BMI. The regular practice of PA enhanced school satisfaction and its role on life satisfaction. Therefore, it is very important to assess the importance of school satisfaction as a determinant of quality of life and the adoption of healthy habits, recognizing the fundamental role of teachers in this regard.

Keywords: school satisfaction; life satisfaction; adolescence; physical activity BMI



Citation: Moral-García, J.E.; Jiménez, A.; Cabaco, A.S.; Jiménez-Eguizabal, A. The Role of Physical Activity and School Physical Education in Enhancing School Satisfaction and Life Satisfaction. *Int. J. Environ. Res. Public Health* **2021**, *18*, 1689. <https://doi.org/10.3390/ijerph18041689>

Academic Editor: Paul B. Tchounwou
Received: 18 January 2021
Accepted: 5 February 2021
Published: 10 February 2021

Publisher’s Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

From the epistemological approach of positive psychology, emphasis has been placed on the development of personal virtues and strengths for the achievement of higher levels of happiness or perceived well-being [1–5]. As far as the educational field is concerned, the development of this approach can be seen in the so-called happy classrooms [6], which have had diverse examples such as the strengths gymnasium [1,7], the promotion of autonomy, group cohesion in the classroom [8], and the improvement of less aggressive school environments [8]. The philosophy of the Aulas Felices program [1] aims to demonstrate the applicability of positive psychology to the educational field. Specifically, it is based on the operationalization of well-being, combining the five keys of the model indicated above: positive emotions, engagement, relationships, meaning, and achievements. Empirical studies in this field [9] have verified the effectiveness of the Happy Classrooms Program in psychological well-being, school aggression, and positive class climate, with results that find improvements in all three parameters by increasing levels of mindfulness. The operationalization of the Seligmanian construct of happiness in its first formulation, or its greater dimensionality later as well-being [8], is closely linked to life satisfaction (LS) as the synthesis of the components that integrate it (relationships, positive emotions, meaning, etc.).

Seligman’s [10] formulation of the theory of well-being, in line with the conceptualization of health proposed by the WHO, in addition to the absence of disease, adds the presence of positive emotions, because the opposite (pessimism, anger, or depression), are

present in the etiopathogenesis of the disease. Collectively, well-being can be measured on the basis of five factors: positive emotion, commitment, meaning, positive relationships, and fulfillment. Positive emotion remains the main element in determining health, as does happiness, but because they are considered subjective measures, happiness and satisfaction with life become relevant factors for the theory of well-being. Moreover, in addition, positive emotions can be related to past events (satisfaction, joy, achievement, pride, and serenity), present (calm, fullness, joy, ecstasy, excitement, and pleasure), or future (optimism, faith, and hope). These three types of positive emotions, represented on the time axis, are not necessarily related to each other, and can be measured using specific scales. The theory of well-being is plural in the method because positive emotion is a subjective variable, defined by what one thinks and feels; instead, commitment, meaning, relationships and achievement have subjective and objective components.

Concerning the specific scope of this research, the conceptual articulation is limited to the satisfaction variable in its most global (life satisfaction) or specific (school satisfaction) context. As most researchers in the field [8] argue, there is a clear interdependence between the two, since LS is nourished by the experiential domains that are important at each evolutionary moment. In the case of adolescence, the academic, family, and peer relationship contexts are the most relevant [8]. There are differences by gender, since despite the fact that girls adapt better to school life [11], it seems that school satisfaction or the quality of their relationships with their peers is less relevant for life satisfaction than for boys [12], although they show higher levels of life satisfaction in general [11,13].

On a structural level, the self-perception of life satisfaction combines a cognitive component, such as satisfaction, with academic performance, and an emotional component, which integrates moods and feelings about that performance. Both are interdependent and have an adaptation-enhancing effect, although assessments of specific contexts (family or academic) should not necessarily be consistent in the subjective assessment of the degree of satisfaction. In fact, several scholars have highlighted the importance of developing indexes [14] as well as the need to prioritize empirical work that addresses specific dimensions (performance, teachers, and learning) and the contextual dimensions of relationships with peers [15].

Among the results found, a greater dissatisfaction at the family level has been reported, followed by the dissatisfaction at the school and family levels [16]. The results have also shown that there is a high correlation between average grades and personal well-being [17,18], and that students flow (are more satisfied) when the perception of ability and challenge of the task is comparable [19,20], and that life satisfaction decreases with experiences of victimization [21].

In summary, it seems that life satisfaction can be understood as a reliable indicator of personal well-being and psychological development of adolescents [22], and within its area of influence, school satisfaction is included [23,24], being regarded as a positive health indicator [25]. Even physical activity (PA) can act as a moderating factor, since higher school satisfaction has been found, with active subjects being more concerned about learning and sedentary ones about aspects related to social approval in the school environment [26]. Some authors even relate general satisfaction with the life and self-esteem of school children [27], and also on the opposite perspective, life dissatisfaction with sexual risk behaviors mediated by other cognitive variables such as self-concept [28].

However, there are other variables that have been directly related to perceived well-being, with a determining relevance on adolescence, such as those related to body image and, in close connection, physical activity (PA). From an objective point of view, the healthy adequacy of body image would correspond to body mass index (BMI), although the mechanisms of cognitive distortion at this stage are frequent, especially in girls [29]. To a large extent, the BMI depends on nutritional habits and the level of PA, with some studies suggesting the need to focus actions on boys who are less physically active [30,31]. Therefore, PA practice helps to reduce the probability of suffering psychological health problems [32], because globally high levels of obesity are related to a more negative

self-concept, decreasing the quality of life in primary, secondary, and upper secondary students [33–36]. Even though adolescents who have lower life satisfaction usually have a higher BMI [37], this is not always significantly associated with BMI [38], because if attractive school activities are designed, students with a BMI close to being overweight or obese will have a good level of school satisfaction and have fun with the tasks performed at school [39]. For this, it is important to promote a comprehensive educational strategy, which informs schoolchildren about the health benefits of nutritional improvement added to an adequate prescription of physical exercise adapted to the motor possibilities of each student [40]. There are differences by gender—for boys, vigorous PA is a predictor of good life satisfaction, while for girls, moderate-to-vigorous PA can be a risk factor for satisfaction [41]. In addition, changes in the level of PA practice are evident with the passage of age, which can be related to the family, social, and school contexts of adolescents [42]. Therefore, it is essential to implement strategies that encourage young adolescents to increase their level of PA practice as a mechanism to improve their health and quality of life [43], in order to compensate for the decrease in PA as age increases. In fact, the school context has recently been identified as a factor that may affect the decrease in the practice of PA in schoolchildren from younger to older age [44]. It was found that the schoolchildren were more satisfied with the school, and because they perceived greater support from their peers, they were more physically active [45]. In view of the lack of studies on the combined effect of some individual factors (BMI or PA) on school satisfaction, and the lack of consensus on the role played by others (gender or age), the aim of this paper was to provide clarifying evidence. Thus, building on the previously described background, we intended to analyze the contribution of school satisfaction on life satisfaction, as well as the moderating effect of gender, age, BMI, and PA level. The following five working hypotheses were raised: (1) school satisfaction has a positive effect on life satisfaction, (2) the positive effect of school satisfaction on life satisfaction is weaker in girls (gender moderating effect), (3) the positive effect of school satisfaction on life satisfaction is weaker in older students (age moderating effect), (4) the positive effect of school satisfaction on life satisfaction is stronger in students with higher levels of PA (PA moderating effect), (5) the positive effect of school satisfaction on life satisfaction is stronger in students with higher levels of BMI (BMI moderating effect).

2. Materials and Methods

2.1. Design and Participants

A total of 2823 teenagers participated in this study, out of which 1396 were boys and 1427 girls, ranging in age from 12 to 16 years (14.13 ± 1.24 years). They belonged to 20 secondary schools throughout Spain.

2.2. Instruments

Several questionnaires were used as instruments to analyze specific predictor variables such as life satisfaction and school satisfaction and control variables such as gender, age, level of PA practice, and BMI.

2.3. Dependent Variable

A total of 6 items were used to analyze satisfaction with life. The first 5 items extracted from the study of Valois et al. [46]. We used the Brief Multidimensional Student Life Satisfaction Scale (BMSLSS) by Seligson, Huebner, and Valois (2003) with 5 life satisfaction domains: family (1st), friends (2nd), school (3rd), with oneself (4th), place of residence (5th), and life in general (6th). A 7-point Likert-type response scale was used (1 = very bad, 2 = unhappy, 3 = dissatisfied, 4 = not happy or dissatisfied, 5 = satisfied, 6 = happy, and 7 = delighted). The Cronbach's alpha coefficient for these 6 items is 0.82, well above 0.6, which is the minimum criterion suggested in the literature [47].

On the basis of the BMSLSS, in the sixth items a question about "general satisfaction" (6th) was used, taking as reference the study of Zullig and White [48], with a scale of

7 response options: “Terrible”, “Unhappy”, “Mostly dissatisfied”, “Mixed-about equally satisfied and dissatisfied”, “Mostly satisfied”, “Pleased”, and “Delighted” [49,50]. The general inclusion of these items is recommended since in initial studies it was detected that a good part of the explained variance was related to other aspects, not reflected in the 5 previous items, and hence the suitability of including this general item that analyzes other aspects. Moreover, a good correlation with the other five domains of the BMSLSS scale has been demonstrated [48].

Specifically, the first item (family) describes satisfaction with family relationships, the second (friends) the satisfaction with friends, the third (school) the satisfaction with the experience in the school, the fourth (oneself) satisfaction with oneself, the fifth (place of residence) satisfaction with the place where one lives, and the sixth (general satisfaction) measures satisfaction with life in general.

2.4. Independent Variable

School satisfaction was studied using the questionnaire entitled “Life circumstances of Young people: School” [51]. It has 6 questions that analyze satisfaction on the basis of current thinking about school (1st), on the teacher’s thinking about the student’s performance (2nd), on the feeling of being overwhelmed by school (3rd), on the enjoyment of classmates being together (4th), on the degree of kindness and helpfulness of classmates (5th), and on the acceptance by classmates (6th). Even though they all have a Likert-type response scale, the response options vary according to the items: item 1 (1 = I don’t like it at all, 2 = I don’t like it very much, 3 = I like it a little bit, and 4 = I like it a lot); item 2 (1 = below average, 2 = average, 3 = good, and 4 = very good); item 3 (1 = not at all, 2 = a little bit, 3 = some, and 4 = a lot); with items 4, 5, and 6 having the same answer scale (1 = not at all, 2 = a little bit, 3 = some, and 4 = a lot). For this reason, the first three items (School 1, School 2, and School 3) were included separately as predictor variables, while the other three were included in an aggregate manner (School 4). Thus, School 1 measures current thinking of the student, School 2 measures teacher’s thinking about the student, School 3 measures school stress, and School 4 measures good relationship with peers. This choice is also justified since Cronbach’s alpha, in the event of using all six items, would be 0.53, below the recommended limit of 0.6 [47]. In contrast, Cronbach’s alpha of the last 3 items amounts to 0.68.

2.5. Control Variables

In terms of gender (0 = male and 1 = female) and age, the data provided by the students who participated in the study were taken into account. The fasting participants were weighed and barefoot height was measured, following the same protocol as the one used in the study by Ruiz-Ariza, De la Torre-Cruz, Suárez-Manzano, and Martínez-López [52]: a digital ASIMED scale, model Elegant (Barcelona, Spain), and a SECA 214 portable measuring device (SECA Ltd., Hamburg, Germany) were used to obtain the weight and height measurements, respectively. Subsequently, the BMI in kg/m² was calculated according to the protocol of a previous study [53], taking as reference the classification made by Cole et al. [54] according to the reference tables adjusted for sex and age.

The International Physical Activity Questionnaire (IPAQ), in its version adapted for European adolescents, IPAQ-A, was used to assess the level of PA practice (0 = sedentary and 1 = active) [55]. For this study, the field of PA during leisure time, sport, and free time was chosen (divided into walking, moderate, and vigorous PA), which made it possible to classify the participants into active and sedentary. The IPAQ measures 4 areas: physical activity carried out at school; tasks in the domestic sphere such as gardening; the form of transport to the different places of travel; and the practice of physical activity during leisure time, sports, and free time. We chose the last of the areas because it is the one that is most clearly related to the physical/sport in different areas and times, and considering the fact that it was the most complete option from the perspective of physical activity, physical exercise, and sport.

2.6. Data Collection and Analysis Procedure

We had the authorization of the school and teachers and the written consent of the parents or guardians of the minors involved. In addition, the students provided their written consent, stating that they voluntarily participated in the research. Brief instructions were provided, and participants were guaranteed the confidentiality of the answers issued. In fact, the names of the participants were coded to ensure anonymity and confidentiality. The research was conducted in accordance with the ethical guidelines of the current Declaration of Helsinki (2013 revision, Brazil) [56], taking into consideration the Law on Biomedical Research [57] and the Law on the Protection of Personal Data [58].

To verify the hypotheses raised, we carried out minimum quadratic linear regressions (ordinary least squares (OLS)). To test the moderating effect hypotheses, we interacted the variables of interest (moderator * independent variable [59]). We report the results when interacting the moderators with School 4 only for parsimony reasons, but consistent results were found when interacting with the other measures of school satisfaction. The analyses were conducted with the statistical program SPSS, v. 23.0, for WINDOWS (SPSS Inc., Chicago, IL, USA) and STATA, v. 15.0, for WINDOWS. We followed standard procedure and reported significant statistical thresholds: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$, and we discuss the exact p -value in the Section 3.

3. Results

Table 1 shows the descriptive statistics of the variables included in the model. Table 2 shows the correlation coefficients and the variance inflation factors (VIFs). The low correlations between predictors suggest that multicollinearity was not a problem. Furthermore, all VIFs were below the limit of 10 recommended by Neter et al. [60] and Kennedy [61], as well as the limit of 5.3 proposed by Hair et al. [62]. The average VIF of the model was 1.06. Consequently, it can be said that multicollinearity is not a problem in the model.

Table 1. Descriptive statistics.

Variable	N	Mean	SD	Min	Max
Life satisfaction	2.82	5.68	0.90	1	7
School 1: current thinking of the student	2.82	2.65	0.83	1	4
School 2: teacher's thinking about the student	2.82	2.80	0.76	1	4
School 3: school stress	2.82	2.39	0.91	1	4
School 4: good relationship with peers	2.82	3.77	0.74	1	5
Age	2.82	14.13	1.24	12	16
BMI	2.82	20.85	3.48	12.32	39.14
		%			
PA	2.82	41.7%		0	1
Gender	2.82	50.5%		0	1

School 1: Current thinking of the student. School 2: Teacher's thinking about the student. School 3: School stress. School 4: Good relationship with peers. Gender: male (0) and female (1); BMI: 20.859; age: 12 to 16 years; PA; level: sedentary (0) and active (1).

Table 3 hierarchically shows the results of the minimum quadratic linear regressions carried out. Model 1 shows the base model including only the control variables. Model 2 adds school satisfaction as an independent variable. The models 3–6 then add the interactions individually to verify the proposed hypotheses of the moderating effects. Finally, model 7 incorporates all the interactions at the same time. As can be observed, the inclusion of the independent variable increases notably the R^2 of the model in comparison with the model including only control variables. The interactions also increase the R^2 , although in a more reduced way in comparison with the model including the independent variable.

Table 2. Correlation coefficients and variance inflation factors (VIFs).

	1	2	3	4	5	6	7	8	9	VIFs
1. Life satisfaction	1									-
2. School 1	0.19 *	1								1.1
3. School 2	0.21 *	0.13 *	1							1.06
4. School 3	-0.16 *	-0.14 *	-0.01	1						1.05
5. School 4	0.30 *	0.10 *	0.10 *	-0.10 *	1					1.03
6. Gender	-0.00	0.15 *	-0.09 *	0.06 *	0.02	1				1.09
7. Age	-0.11 *	-0.11 *	-0.05 *	0.08 *	0.03	0.01	1			1.05
8. PA	0.07 *	0.01	0.10 *	-0.03	0.04 *	-0.15 *	-0.03	1		1.05
9. BMI	-0.06 *	0.00	-0.07 *	-0.01	-0.02	-0.07 *	0.15 *	-0.02	1	1.04

* $p < 0.05$. School 1: Current thinking of the student. School 2: Teacher’s thinking about the student. School 3: School stress. School 4: Good relationship with peers.

Table 3. Results table (hierarchical minimum quadratic linear regressions: coefficients, standard errors, and levels of significance).

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	
School 1: Current thinking of the student		0.13 *** (0.01)	0.13 *** (0.01)	0.13 *** (0.01)	0.13 *** (0.01)	0.13 *** (0.01)	0.13 *** (0.01)	
School 2: Teacher’s thinking about the student		0.18 *** (0.02)	0.18 *** (0.02)	0.18 *** (0.02)	0.18 *** (0.02)	0.18 *** (0.02)	0.18 *** (0.02)	
School 3: School stress		-0.10 *** (0.01)	-0.10 *** (0.01)	-0.10 *** (0.01)	-0.10 *** (0.01)	-0.10 *** (0.01)	-0.10 *** (0.01)	
School 4: Good relationship with peers		0.32 *** (0.02)	0.37 *** (0.02)	0.11 (0.23)	0.31 *** (0.02)	-0.05 (0.12)	-0.14 (0.25)	
Gender	0.01 (0.03)	-0.01 (0.03)	0.37 ** (0.16)	-0.01 (0.03)	-0.01 (0.03)	-0.01 (0.03)	0.35 ** (0.16)	
Age	-0.07 *** (0.01)	-0.05 *** (0.01)	-0.05 *** (0.01)	-0.11 * (0.06)	-0.05 *** (0.01)	-0.05 *** (0.01)	-0.10 (0.06)	
PA	0.12 *** (0.03)	0.06 * (0.03)	0.06 * (0.03)	0.06 * (0.03)	-0.08 (0.16)	0.06 ** (0.03)	0.00 (0.17)	
BMI	-0.01 ** (0.00)	-0.01 ** (0.00)	-0.01 ** (0.00)	-0.01 ** (0.00)	-0.01 ** (0.00)	-0.07 *** (0.02)	-0.07 *** (0.02)	
Gender * School 4			-0.10 ** (0.04)				-0.09 ** (0.04)	
Age * School 4				0.01 (0.01)			0.01 (0.01)	
PA * School 4					0.03 (0.04)		0.01 (0.04)	
BMI * School 4						0.01 *** (0.01)	0.01 *** (0.01)	
Constant		6.88 *** (0.21)	4.792 *** (0.22)	4.616 *** (0.23)	5.601 *** (0.93)	4.850 *** (0.23)	6.232 *** (0.51)	6.61 *** (0.99)
Observations		2.82	2.82	2.82	2.82	2.82	2.82	2.82
R ²		0.01	0.17	0.17	0.17	0.17	0.17	0.17

Standard errors in parentheses: *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

In Hypothesis 1, we suggested that school satisfaction has a positive effect on life satisfaction. The school satisfaction coefficients in model 2 were all positive (except School 3, as expected, since it is a reversed-coded measure) and significant (School 1 $\beta = 0.13$, $p = 0.00$; School 2 $\beta = 0.18$, $p = 0.00$; School 3 $\beta = -0.10$, $p = 0.00$; and School 4 $\beta = 0.32$, $p = 0.00$). As the p -values were smaller than the strictest significance threshold ($p < 0.01$),

this result validated Hypothesis 1 and indicates that school satisfaction was statistically associated with higher life satisfaction.

In Hypothesis 2, we suggested that the positive effect of school satisfaction on life satisfaction is weaker in women. Model 3 shows a negative and significant coefficient ($\beta = -0.10$, $p = 0.01$) for the interaction between school satisfaction and gender (Gender * School 4). As the p -value was smaller than the commonly accepted significance threshold ($p < 0.05$), Hypothesis 2 was therefore verified.

In Hypothesis 3, we suggested that the positive effect of school satisfaction on life satisfaction is weaker in older students. Model 4 showed a positive but not significant coefficient ($\beta = 0.015$, $p = 0.37$) for the interaction between school satisfaction and age (Age * School 4). As the p -value was higher than the most lenient significance threshold ($p > 0.1$), Hypothesis 3 therefore cannot be confirmed.

In Hypothesis 4, we suggested that the positive effect of school satisfaction on life satisfaction is stronger the higher the level of PA. Model 5 showed a positive but not significant coefficient ($\beta = 0.03$, $p = 0.36$) for the interaction between school satisfaction and PA (PA * School 4). As the p -value was higher than the most lenient significance threshold ($p > 0.1$), Hypothesis 4 cannot therefore be confirmed either.

Finally, in Hypothesis 5, we suggested that the positive effect of school satisfaction on life satisfaction is stronger the higher the BMI. Model 6 showed a positive and significant coefficient ($\beta = 0.01$, $p = 0.00$) for the interaction between school satisfaction and BMI (BMI * School 4). As the p -value was smaller than the strictest significance threshold ($p < 0.01$), Hypothesis 5 was therefore verified.

Finally, to test the consistency of the results obtained, we produced a model including all the interactions at the same time. The results, shown in model 7, are consistent with those previously reported.

4. Discussion

Sometimes students do not feel comfortable with the school context, which can lead to conflicts between classmates [63]; hence, school satisfaction is sometimes not very high [64], since the support of the person's social context and life satisfaction are related [65]. In this regard, the teacher is a key factor in boosting student satisfaction at school, since an unsatisfied student decreases the probability of having life satisfaction, a greater risk of dropping out of school [66], and sometimes even a greater tendency to commit suicide [67]. Given this context, the regular practice of PA can help to improve mental health, such as depression [68].

This study confirmed Hypothesis 1, as there was a positive effect between school satisfaction and life satisfaction. In line with other research, it was concluded that high school satisfaction has a positive impact on life satisfaction [69], which is assessed by analyzing the good and bad things generally happening to a person [70], and is closely related to psychological well-being [71]. In fact, academic achievements are beneficial for a person's subjective well-being [72], and high levels of boredom in class can also affect life satisfaction [69], which can have negative effects on social and psychological parameters [73]. Greater satisfaction with the physical education (PE) subject has a positive impact on satisfaction with the school in general [74,75]. In addition, students who are more satisfied with their PE performance experience greater intrinsic motivation [76], thus enhancing their commitment and academic results [77].

In Hypothesis 2, which was verified, it was stated that school satisfaction has less impact on life satisfaction in girls. In part, these results agree with other studies, where it has been found that boys have greater school satisfaction and life satisfaction than girls [78]; these differences sometimes affect a lower intention of girls to be active [79], finding similarities with other studies [80,81]. In contrast, research indicates that there are no gender-based differences in life satisfaction in younger schoolchildren [82].

Although it could not be confirmed, Hypothesis 3 stated that the positive effect of school satisfaction on life satisfaction is lower in older students. This is similar to the find-

ings of another study, where younger adolescents showed the highest life satisfaction [83]. In contrast, other authors have found that extracurricular sports activities, as well as life satisfaction, related to free time, can affect the appearance of aggressive behavior with age, a circumstance ruled out in relation to satisfaction with PE classes [84].

In this study, Hypothesis 4 stated that the positive effect of school satisfaction on life satisfaction is greater the more PA is practiced, a circumstance that could not be confirmed. A recent study concluded that school satisfaction with PE classes is a good predictor of PA practice [78], favoring the student [85] and increasing the possibilities of physical and sports practice after school hours [86]. However, in order to generate this level of student satisfaction, the PE teacher must motivate the students in class [87,88]. This would be a good strategy to change the trend of increasing unhealthy habits among adolescents [89], since correct motivation and awareness is a very useful tool to generate change [90,91]. As an incentive to the practice of PA, previous studies have suggested implementing and encouraging more frequent and of higher intensity PA subjects, coupled with extracurricular sports programs [92]. This has been corroborated with adolescents from different countries such as Australia [93], Canada [94], and Spain [95]. The involvement of teenagers in PA practice outside of school has proved to be very important, as this practice increases the satisfaction of active teenagers compared to sedentary ones [96].

Finally, Hypothesis 5 stated that school satisfaction has a positive effect on life satisfaction the higher the BMI of adolescents. There are negative connections between life satisfaction and the perceived overweight [97], the performance of diets [98], and body dissatisfaction [99]. Overweight has been found to have a negative impact on school satisfaction with PE classes [83]. For this reason, it is very relevant to involve school children in school activities that promote their life satisfaction, taking into account gender differences in PA practice and in their own perception of body dissatisfaction [100]. These negative effects of excess weight are also reflected in a lower perceived quality of life [101].

This study was not free of limitations. These include the cross-sectional design of the study. With a view of future research, a longitudinal study can be envisaged, which would enhance the extraction of causal relationships between the different variables analyzed.

5. Conclusions

One of the main conclusions of this study is that, although it does not affect both genders equally, school satisfaction has a great positive association with life satisfaction. Therefore, it is essential that adolescents enjoy their classes and that their participation in the proposed tasks is perceived as positive and satisfactory [102]. According to the findings of this study, the association of school satisfaction with life satisfaction is especially pronounced in physical adolescents who do more PA, regardless of their age. Therefore, the importance of physical activity is reinforced. From the perspective of PE, it is necessary to ensure that schoolchildren feel satisfied and motivated, since this is how they will perceive PE classes as pleasant and fun [103], which increases the possibilities of improving their present and future quality of life [102]. In fact, one of the great concerns for the World Health Organization [104] is precisely sedentary life, which is considered one of the greatest risk factors for people's health, since it contributes to the decline in people's quality of life, affecting the psychological level with the emergence of depressive conditions [105], causing dissatisfaction with life [106], and affecting the increase in overweight or obesity [32,107,108]. Although this research concludes that school satisfaction affects life satisfaction, especially in school children with a higher BMI, some researchers relate a higher BMI to poorer health and lower life satisfaction in adolescents [109]. Indeed, in order to reduce sedentarism and improve body composition, recent studies confirm the positive influence of PA on the quality and satisfaction of life [31,108], the latter increasing as more PA is practiced [92]. Moreover, life satisfaction has long been considered as an indicator of quality of life [109], showing that the higher the life satisfaction, the higher the quality of life people experience [92]. Consequently, teacher training programs should be developed to help them become aware of the importance of students feeling psychologically satisfied,

as this may have benefits for their health and the consolidation of healthy habits, such as adherence to regular PA [102].

Author Contributions: Conceptualization, J.E.M.-G., A.J., A.S.C., and A.J.-E.; investigation, J.E.M.-G., A.J., A.S.C., and A.J.-E.; data curation, J.E.M.-G., A.J., A.S.C., and A.J.-E.; writing—original draft preparation, J.E.M.-G., A.J., A.S.C., and A.J.-E.; writing—review and editing, J.E.M.-G., A.J., A.S.C., and A.J.-E.; supervision, J.E.M.-G., A.J., A.S.C., and A.J.-E.; All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: The study was carried out in accordance with the guidelines of the Declaration of Helsinki and was approved by the Research Ethics Committee of the Pontifical University of Salamanca (minutes with approval date 01/15/2021).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Not applicable.

Acknowledgments: Thank you to all the centers and participants involved in this investigation and to the Department of Education Sciences of the Faculty of Education of the University of Burgos where J.E. Moral-García carried out a post-doctoral research stay from which this research is derived.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Bisquerra, R.; Hernández, S. Positive psychology, emotional education and the happy classrooms program. *Pap. Psicólogo* **2017**, *38*, 58–65.
2. Cobo, R.; García, D. Happiness is educable: About well-being in schools. *Rev. Convoc.* **2017**, *33–34*, 38–47.
3. Adler, A. Positive Education: Educating for Academic Success and a Full Life. *Pap. Psicólogo* **2017**, *38*, 50–57. [\[CrossRef\]](#)
4. Poulou, M.; Norwich, B. Psychological needs, mixed self-perceptions, well-being and emotional, and behavioral difficulties: Adolescent students' perceptions. *Eur. J. Psychol. Educ.* **2020**, *35*, 775–793. [\[CrossRef\]](#)
5. Ryff, C.D. Psychological Well-Being Revisited: Advances in the Science and Practice of Eudaimonia. *Psychother. Psychosom.* **2014**, *83*, 10–28. [\[CrossRef\]](#) [\[PubMed\]](#)
6. Bisquerra, R.; Hernández, S. Positive psychology, emotional education and the happy classroom program. *Típica Boletín Electrónico Salud Escolar* **2010**, *6*, 201–220.
7. Barahona, M.N.; Cabaco, A.S.; Urchaga, J.D. Positive Psychology applied to education: The CIP program for the improvement of vital competencies in Higher Education. *Rev. Form. e Innovación Educ. Univ.* **2013**, *6*, 244–256.
8. Proctor, C.; Tsukayama, E.; Wood, A.M.; Maltby, J.; Eades, J.F.; Linley, P.A. Strengths Gymnastics: Impact of an Intervention Based on Strengths of Character on Adolescents' Life Satisfaction and Well-Being. *RET, Rev. Toxicom.* **2015**, *75*, 10–23.
9. Lombas, A.S.; Jiménez, T.I.; Arguís-Rey, R.; Hernández-Paniello, S.; Valdivia-Salas, S.; Martín-Albo, J. Impact of the Happy Classrooms Programme on Psychological Well-being, School Aggression, and Classroom Climate. *Mindfulness (N. Y.)* **2019**, *10*, 1642–1660. [\[CrossRef\]](#)
10. Seligman, M.E.P. *Flourishing: A New Understanding of the Nature of Happiness and Well-Being*; Pergamon Press: Oxford, UK, 2011.
11. Kim, K.E. The effect of boys' and girls' school adjustment on life satisfaction in Korea. *Indian J. Sci. Technol.* **2016**, *9*, 1–7.
12. Chai, L.; Xue, J.; Han, Z. School bullying victimization and self-rated health and life satisfaction: The gendered buffering effect of educational expectations. *Child. Youth Serv. Rev.* **2020**, *116*, 105252. [\[CrossRef\]](#)
13. Aymerich, M.; Casas, F. A contextualized measure of Overall Life Satisfaction among adolescents: Differences by gender. *Child Indic. Res.* **2020**, *13*, 2241–2260. [\[CrossRef\]](#)
14. Bradshaw, J.; Richardson, D. An index of child well-being in Europe. *Child Indic. Res.* **2009**, *2*, 319–351. [\[CrossRef\]](#)
15. Casas, F.; Bălăţescu, S.; Bertran, I.; González, M.; Hatos, A. School satisfaction among adolescents: Testing different indicators for its measurement and its relationship with overall life satisfaction and subjective well-being in Romania and Spain. *Soc. Indic. Res.* **2013**, *111*, 665–681. [\[CrossRef\]](#)
16. Kwan, Y.K. Life satisfaction and self-assessed health among adolescents in Hong Kong. *J. Happiness Stud.* **2010**, *11*, 383–393. [\[CrossRef\]](#)
17. El Achkar, A.M.N.; Leme, V.B.R.; Soares, A.B.; Yunes, M.A.M. Life satisfaction and academic performance of elementary school students. *Psico-USF* **2019**, *24*, 323–335. [\[CrossRef\]](#)
18. Ferragut, M.; Fierro, A. Emotional intelligence, personal well-being and academic performance in preadolescents. *Rev. Latinoam. Psicol.* **2012**, *44*, 95–104.
19. Satıcı, S.A.; Engin Deniz, M. Adolescents' self-perception and school satisfaction: Assessing the mediating role of subjective vitality. *Egit. Bilim* **2019**, *44*, 367–381. [\[CrossRef\]](#)
20. Mesurado, B. The experience of flow or optimal experience in the educational field. *Rev. Latinoam. Psicol.* **2010**, *42*, 183–192.

21. Kerr, J.C.; Valois, R.F.; Huebner, E.S.; Drane, J.W. Life Satisfaction and peer victimization among USA public high school adolescents. *Child Indic. Res.* **2011**, *4*, 127–144. [[CrossRef](#)]
22. Kleszczewska, D.; Dzielska, A.; Salonna, F.; Mazur, J. The Association between Physical Activity and General Life Satisfaction in Lower Secondary School Students: The Role of Individual and Family Factors. *Community Ment. Health J.* **2018**, *54*, 1245–1252. [[CrossRef](#)] [[PubMed](#)]
23. Strózik, D.; Strózik, T.; Szwarc, K. The Subjective Well-Being of School Children. The First Findings from the Children's Worlds Study in Poland. *Child Indic. Res.* **2016**, *9*, 39–50. [[CrossRef](#)] [[PubMed](#)]
24. Mazur, J.; Szkulciecka-Dębek, M.; Dzielska, A.; Drozd, M.; Małkowska-Szkutnik, A. What does the Cantril Ladder measure in adolescence? *Arch. Med. Sci.* **2018**, *14*, 182–189. [[CrossRef](#)] [[PubMed](#)]
25. Moulin, F.; Keyes, C.; Liu, A.; Caron, J. Correlates and Predictors of Well-being in Montreal. *Community Ment. Health J.* **2017**, *53*, 560–567. [[CrossRef](#)]
26. Moral-García, J.-E.; Jorge, N.R.; Eliseo, G.-C.; Juan-José, P.-S.; Andrés, R.-G.; Sergio, L.G.; Mario, A.J.; Rubén, M.D. Perception of adolescents on physical education classes according to the physical activity level, weight status, gender and age. *J. Phys. Educ. Sport* **2019**, *19*, 40–48.
27. Ahmed, M.D.; Yan Ho, W.K.; Zazed, K.; Van Niekerk, R.L.; Jong-Young Lee, L. The adolescent age transition and the impact of physical activity on perceptions of success, self-esteem and well-being. *J. Phys. Educ. Sport* **2016**, *16*, 776–784.
28. Orcasita, L.; Mosquera, J.; Carrillo, T. Self-concept, self-efficacy and risky sexual behaviors in adolescents. *Inf. Psicológicos* **2018**, *18*, 141–168. [[CrossRef](#)]
29. Sobrino-Bazaga, A.; Rabito-Alcón, M.F. Gender differences existing in the general population in relation to body dissatisfaction associated with the ideal of beauty: A systematic review. *Estud. Psicol.* **2018**, *39*, 548–587. [[CrossRef](#)]
30. Moral García, J.E.; Agraso López, A.D.; Pérez Soto, J.J.; Rosa Guillamón, A.; Tárraga Marcos, M.L.; García Cantó, E.; Tárraga López, P.J. Physical activity practice according to adherence to the Mediterranean diet, alcohol consumption and motivation in adolescents. *Nutr. Hosp.* **2019**, *36*, 420–427.
31. Moral-García, J.E.; Agraso-López, A.D.; Ramos-Morcillo, A.J.; Jiménez, A.; Jiménez-Eguizábal, A. The Influence of Physical Activity, Diet, Weight Status and Substance Abuse on Students' Self-Perceived Health. *Int. J. Environ. Res. Public Health* **2020**, *17*, 1387. [[CrossRef](#)]
32. Hegberg, N.J.; Tone, E.B. Physical activity and stress resilience: Considering those at-risk for developing mental health problems. *Ment. Health Phys. Act.* **2015**, *8*, 1–7. [[CrossRef](#)]
33. Rosa, A.; García, E.; Carrillo, P. Adiposity, weight status and self-concept in schoolchildren and adolescents: A systematic review. *Rev. Digit. Educ. Física* **2019**, *10*, 75–91.
34. Martínez-López, E.J.; Grao-Cruces, A.; Moral-García, J.E.; De La Torre Cruz, M.J. Knowledge and attitude. Two key elements in the training of physical education teachers to prevent and manage obesity among schoolchildren. *Rev. Esp. Pedagog.* **2013**, *71*, 525–539.
35. Martínez-López, E.J.; Redecillas Peiró, M.T.; Moral García, J.E. Body fat with electrical bioimpedance in the teaching and non-teaching periods. *Revista Internacional de Medicina y Ciencias de la Actividad Física y del Deporte* **2011**, *11*, 77–94.
36. Chui, W.H.; Wong, M.Y.H. Gender Differences in Happiness and Life Satisfaction among Adolescents in Hong Kong: Relationships and Self-Concept. *Soc. Indic. Res.* **2016**, *125*, 1035–1051. [[CrossRef](#)]
37. Forste, R.; Moore, E. Adolescent obesity and life satisfaction: Perceptions of self, peers, family, and school. *Econ. Hum. Biol.* **2012**, *10*, 385–394. [[CrossRef](#)]
38. Zahedi, H.; Kelishadi, R.; Heshmat, R.; Hasani Ranjbar, S.; Esmail Motlagh, M.; Ardalan, G.; Arefirad, T.; Mohammadi, R.; Asayesh, H.; Qorbani, M. Association of adolescents' weight status with life satisfaction: Role of self, peers, family and school perception; the CASPIAN-IV Study. *Minerva Pediatr.* **2019**, *71*, 235–241. [[CrossRef](#)]
39. Watson, L.A.; Baker, M.C.; Chadwick, P.M. Kids just wanna have fun: Children's experiences of a weight management programme. *Br. J. Health Psychol.* **2016**, *21*, 407–420. [[CrossRef](#)]
40. Cordellat, A.; Padilla, B.; Grattarola, P.; García-Lucerga, C.; Crehuá-Gaudiza, E.; Núñez, F.; Martínez-Costa, C.; Blasco-Lafarga, C. Multicomponent exercise training combined with nutritional counselling improves physical function, biochemical and anthropometric profiles in obese children: A pilot study. *Nutrients* **2020**, *12*, 2723. [[CrossRef](#)]
41. Slapšinskaitė, A.; Lukoševičiūtė, J.; Šmigelskas, K. Interplay between adolescent physical activity and life satisfaction: Gender as potential effect modifier. *Int. J. Public Health* **2020**, *65*, 1355–1363. [[CrossRef](#)]
42. Pate, R.R.; Dowda, M.; Dishman, R.K.; Colabianchi, N.; Saunders, R.P.; McIver, K.L. Change in Children's Physical Activity: Predictors in the Transition From Elementary to Middle School. *Am. J. Prev. Med.* **2019**, *56*, e65–e73. [[CrossRef](#)] [[PubMed](#)]
43. Howie, E.K.; McVeigh, J.A.; Smith, A.J.; Zabatiero, J.; Bucks, R.S.; Mori, T.A.; Beilin, L.J.; Straker, L.M. Physical activity trajectories from childhood to late adolescence and their implications for health in young adulthood. *Prev. Med. (Baltim.)* **2020**, *139*, 106224. [[CrossRef](#)] [[PubMed](#)]
44. McGaughey, T.; Vlaar, J.; Naylor, P.-J.; Hanning, R.M.; Mare, L.L.; Mâsse, L.C. Individual and environmental factors associated with participation in physical activity as adolescents transition to secondary school: A qualitative inquiry. *Int. J. Environ. Res. Public Health* **2020**, *17*, 7646. [[CrossRef](#)]
45. Khan, S.R.; Uddin, R.; Mandic, S.; Khan, A. Parental and peer support are associated with physical activity in adolescents: Evidence from 74 countries. *Int. J. Environ. Res. Public Health* **2020**, *17*, 4435. [[CrossRef](#)]

46. Valois, R.F.; Zullig, K.J.; Huebner, E.S.; Drane, J.W. Physical activity behaviors and perceived life satisfaction among public high school adolescents. *J. Sch. Health* **2004**, *74*, 59–65. [[CrossRef](#)]
47. Peterson, R.A. A meta-analysis of Cronbach's coefficient alpha. *J. Consum. Res.* **1994**, *21*, 381–391. [[CrossRef](#)]
48. Zullig, K.J.; White, R.J. Physical activity, life satisfaction, and self-rated health of middle school students. *Appl. Res. Qual. Life* **2011**, *6*, 277–289. [[CrossRef](#)]
49. Seligson, J.; Huebner, E.; Valois, R. An investigation of a brief multidimensional students' life satisfaction scale with elementary school students. *Soc. Indic. Res.* **2005**, *73*, 355–374. [[CrossRef](#)]
50. Seligson, J.; Huebner, E.S.; Valois, R.F. Preliminary validation of the brief multidimensional student's life satisfaction scale. *Soc. Indic. Res.* **2003**, *61*, 121–145. [[CrossRef](#)]
51. Samdal, O.; Dür, W.; Freeman, J. Life Circumstances of Young People: School. In *Young People's Health in Context*; World Health Organization: Copenhagen, Denmark, 2004; pp. 42–51.
52. Ruiz-Ariza, A.; De La Torre-Cruz, M.J.; Suárez-Manzano, S.; Martínez-López, E.J. Support towards physical activity and academic performance regardless of parental socio-educational status. *Retos* **2019**, *35*, 208–212.
53. Martínez-López, E.J.; Moreno-Cercada, J.; Suarez-Manzano, S.; Ruiz-Ariza, A. Effect of and satisfaction with a program of physical activity controlled through heart rate monitors on body mass index in young students with overweight-obesity. *Retos* **2018**, *33*, 179–184.
54. Cole, T.J.; Flegal, K.M.; Nicholls, D.; Jackson, A.A. Body mass index cut offs to define thinness in children and adolescents: International survey. *BMJ* **2007**, *335*, 194. [[CrossRef](#)]
55. Hagströmer, M.; Bergman, P.; De Bourdeaudhuij, I.; Ortega, F.B.; Ruiz, J.R.; Manios, Y.; Rey-López, J.P.; Phillipp, K.; von Berlepsch, J.; Sjöström, M.; et al. Concurrent validity of a modified version of the International Physical Activity Questionnaire (IPAQ-A) in European adolescents: The HELENA Study. *Int. J. Obes. (Lond.)* **2008**, *32* (Suppl. 5), S42–S48. [[CrossRef](#)] [[PubMed](#)]
56. General Assembly of the WMA Helsinki Declaration of the World Medical Association. *Ethical Principles for Human Medical Research*; Asociación Médica Mundial, Ed.; Asociación Médica Mundial: Fortaleza, Brazil, 2013.
57. B.O.E. Law 14/2007, of July 3, on Biomedical Research; B.O.E.: Madrid, Spain, 2007; pp. 28826–28848.
58. B.O.E. Organic Law 15/1999, of December 13, Protection of Personal Data; B.O.E.: Madrid, Spain, 1999; pp. 43088–43099.
59. Haans, R.F.J.; Pieters, C.; He, Z.-L. Thinking about U: Theorizing and testing U- and inverted U-shaped relationships in strategy research. *Strateg. Manag. J.* **2016**, *37*, 1177–1195. [[CrossRef](#)]
60. Neter, J.; Wasserman, W.; Kutner, M.H. *Applied Linear Statistical Models: Regression, Analysis of Variance, and Experimental Designs*; Irwin: Homewood, IL, USA, 1985.
61. Kennedy, P. *A Guide to Econometrics*; John Wiley & Sons: Oxford, UK, 2008.
62. Hair, J.F., Jr.; Anderson, R.E.; Tatham, R.L.; Black, W.C. *Multivariate Data Analysis*, 3rd ed.; Macmillan: New York, NY, USA, 1995.
63. González, A.E.M.; Saura, C.J.I.; Rodríguez, J.A.P.; Linares, V.R. The importance of friends and parents in health and academic performance. *Electron. J. Res. Educ. Psychol.* **2010**, *8*, 111–138.
64. Bonilla, P.U.; Romero, L.B.; Cabrera, J.S. Quality of life, anthropometric indicators and body satisfaction in a group of young schoolchildren. *Retos* **2015**, *27*, 62–66.
65. Şahin Baltacı, H.; Karataş, Z. Perceived social support, depression and life satisfaction as the predictor of the resilience of secondary school students: The case of Burdur. *Eurasian J. Educ. Res.* **2015**, *15*, 111–130. [[CrossRef](#)]
66. Elmore, G.M.; Huebner, E.S. Adolescents' satisfaction with school experiences: Relationships with demographics, attachment relationships, and school engagement behavior. *Psychol. Sch.* **2010**, *47*, 525–537. [[CrossRef](#)]
67. Singer, J.B.; Erbacher, T.A.; Rosen, P. School-Based Suicide Prevention: A Framework for Evidence-Based Practice. *Sch. Ment. Health* **2019**, *11*, 54–71. [[CrossRef](#)]
68. Hughes, C.W.; Barnes, S.; Barnes, C.; Defina, L.F.; Nakonezny, P.; Emslie, G.J. Depressed Adolescents Treated with Exercise (DATE): A pilot randomized controlled trial to test feasibility and establish preliminary effect sizes. *Ment. Health Phys. Act.* **2013**, *6*. [[CrossRef](#)] [[PubMed](#)]
69. Balaguer, I.; Duda, J.L.; Castillo, I. Motivational Antecedents of Well-Being and Health Related Behaviors in Adolescents. *J. Hum. Kinet.* **2017**, *59*, 121–130. [[CrossRef](#)] [[PubMed](#)]
70. Diener, E.; Inglehart, R.; Tay, L. Theory and Validity of Life Satisfaction Scales. *Soc. Indic. Res.* **2013**, *112*, 497–527. [[CrossRef](#)]
71. McDowell, I. Measures of self-perceived well-being. *J. Psychosom. Res.* **2010**, *69*, 69–79. [[CrossRef](#)] [[PubMed](#)]
72. Tanaka, A.; Murayama, K. Within-person analyses of situational interest and boredom: Interactions between task-specific perceptions and achievement goals. *J. Educ. Psychol.* **2014**, *106*, 1122–1134. [[CrossRef](#)]
73. LePera, N. Relationships between boredom proneness, mindfulness, anxiety, depression, and substance use. *New Sch. Psychol. Bull.* **2011**, *8*, 15–25.
74. Baños, R.; Baena-Extremera, A.; Ortiz-Camacho, M.D.M. Prediction of the Satisfaction with the Student Life, Based on Teaching Competence and Satisfaction with the School. *Front. Psychol.* **2019**, *10*, 2506. [[CrossRef](#)] [[PubMed](#)]
75. Baena-Extremera, A.; Granero-Gallegos, A. Prediction model of satisfaction with physical education and school. *Rev. Psicodidact.* **2015**, *20*, 177–192. [[CrossRef](#)]
76. Granero-Gallegos, A.; Baena-Extremera, A.; Pérez-Quero, F.J.; Ortiz-Camacho, M.M.; Bracho-Amador, C. Analysis of motivational profiles of satisfaction and importance of physical education in high school adolescents. *J. Sport. Sci. Med.* **2012**, *11*, 614–623.

77. Lyons, M.D.; Huebner, E.S. Academic Characteristics of Early Adolescents with Higher Levels of Life Satisfaction. *Appl. Res. Qual. Life* **2016**, *11*, 757–771. [[CrossRef](#)]
78. Baños, R. Intention of practice, satisfaction with physical education and life by gender in Mexican and Spanish students. *Retos* **2020**, *37*, 412–418.
79. Conesa, P.V.; Juan, F.R. Motivational climate in physical education and sport and physical activity in leisure of students from Spain, Costa Rica and Mexico. *Retos* **2016**, *29*, 195–200.
80. de Looze, M.; Elgar, F.J.; Currie, C.; Kolip, P.; Stevens, G.W.J.M. Gender Inequality and Sex Differences in Physical Fighting, Physical Activity, and Injury Among Adolescents Across 36 Countries. *J. Adolesc. Health* **2019**, *64*, 657–663. [[CrossRef](#)]
81. Baños, R.; Del Mar Ortiz-Camacho, M.; Baena-Extremera, A.; Zamarripa, J. Effect of teachers' gender on the importance of physical education, motivational climate, disruptive behaviors, future practice intentions, and academic performance. *Retos* **2018**, *33*, 252–257.
82. Chen, A.-G.; Yan, J.; Yin, H.-C.; Pan, C.-Y.; Chang, Y.-K. Effects of acute aerobic exercise on multiple aspects of executive function in preadolescent children. *Psychol. Sport Exerc.* **2014**, *15*, 627–636. [[CrossRef](#)]
83. Moral-García, J.E.; Ruiz-Ariza, A.; Grao-Cruces, A.; De La Torre-Cruz, M.J.; Martínez-López, E.J. Satisfaction of Spanish high school students with physical education: Gender, age, physical activity level and body type. *S. Afr. J. Res. Sport. Phys. Educ. Recreat.* **2018**, *40*, 71–84.
84. Park, S.; Chiu, W.; Won, D. Effects of physical education, extracurricular sports activities, and leisure satisfaction on adolescent aggressive behavior: A latent growth modeling approach. *PLoS ONE* **2017**, *12*, e0174674. [[CrossRef](#)] [[PubMed](#)]
85. Lwin, M.O.; Malik, S. The efficacy of exergames-incorporated physical education lessons in influencing drivers of physical activity: A comparison of children and pre-adolescents. *Psychol. Sport Exerc.* **2012**, *13*, 756–760. [[CrossRef](#)]
86. Gabriele, J.M.; Gill, D.L.; Adams, C.E. The roles of want to commitment and have to commitment in explaining physical activity behavior. *J. Phys. Act. Health* **2011**, *8*, 420–428. [[CrossRef](#)]
87. Taylor, I.M.; Ntoumanis, N.; Standage, M. A self-determination theory approach to understanding the antecedents of teachers' motivational strategies in physical education. *J. Sport Exerc. Psychol.* **2008**, *30*, 75–94. [[CrossRef](#)]
88. Granero-Gallegos, A.; Baena-Extremera, A.; Sánchez-Fuentes, J.A.; Martínez-Molina, M. Predictive model of the importance and usefulness of physical education [Modelo predictivo de la importancia y utilidad de la educación física]. *Cuad. Psicol. del Deport.* **2014**, *14*, 121–130.
89. Canto, E.G.; Guillamon, A.R.; López, L.N. Physical activity level, tobacco and alcohol habitual consumption, and its relationship with quality of life in Spanish adolescents. *Retos* **2021**, *39*, 112–119.
90. Villasana, M.V.; Pires, I.M.; Sá, J.; Garcia, N.M.; Zdravevski, E.; Chorbev, I.; Lameski, P.; Flórez-Revuelta, F. Promotion of Healthy Nutrition and Physical Activity Lifestyles for Teenagers: A Systematic Literature Review of The Current Methodologies. *J. Pers. Med.* **2020**, *10*, 12. [[CrossRef](#)]
91. Ortega, F.B.; Ruiz, J.R.; Castillo, M.J. Physical activity, physical fitness, and overweight in children and adolescents: Evidence from epidemiologic studies. *Endocrinol. y Nutr.* **2013**, *60*, 458–469. [[CrossRef](#)]
92. Chen, S.; Yan HO, W.K.; Dilsad Ahmed, M. Physical activity and its relationship with life satisfaction among middle school students: A cross-culture study. *Sustainability* **2020**, *12*, 6932. [[CrossRef](#)]
93. Lacy, K.E.; Allender, S.E.; Kremer, P.J.; De Silva-Sanigorski, A.M.; Millar, L.M.; Moodie, M.L.; Mathews, L.B.; Malakellis, M.; Swinburn, B.A. Screen time and physical activity behaviours are associated with health-related quality of life in Australian adolescents. *Qual. Life Res.* **2012**, *21*, 1085–1099. [[CrossRef](#)]
94. Wu, X.Y.; Ohinmaa, A.; Veugelers, P.J. Diet quality, physical activity, body weight and health-related quality of life among grade 5 students in Canada. *Public Health Nutr.* **2012**, *15*, 75–81. [[CrossRef](#)] [[PubMed](#)]
95. Sánchez-López, M.; Salcedo-Aguilar, F.; Solera-Martínez, M.; Moya-Martínez, P.; Notario-Pacheco, B.; Martínez-Vizcaíno, V. Physical activity and quality of life in schoolchildren aged 11-13 years of Cuenca, Spain. *Scand. J. Med. Sci. Sports* **2009**, *19*, 879–884. [[CrossRef](#)]
96. Erdvik, I.B.; Haugen, T.; Ivarsson, A.; Säfvenbom, R. Global Self-Worth among Adolescents: The Role of Basic Psychological Need Satisfaction in Physical Education. *Scand. J. Educ. Res.* **2020**, *64*, 768–781. [[CrossRef](#)]
97. Matthews, M.; Zullig, K.J.; Ward, R.M.; Horn, T.; Huebner, E.S. An Analysis of Specific Life Satisfaction Domains and Disordered Eating among College Students. *Soc. Indic. Res.* **2012**, *107*, 55–69. [[CrossRef](#)]
98. Esch, L.; Zullig, K.J. Middle school students' weight perceptions, dieting behaviors, and life satisfaction. *Am. J. Health Educ.* **2008**, *39*, 345–352. [[CrossRef](#)]
99. Brannan, M.E.; Petrie, T.A. Psychological well-being and the body dissatisfaction-bulimic symptomatology relationship: An examination of moderators. *Eat. Behav.* **2011**, *12*, 233–241. [[CrossRef](#)] [[PubMed](#)]
100. Góngora, V.C. Satisfaction with Life, Well-Being, and Meaning in Life as Protective Factors of Eating Disorder Symptoms and Body Dissatisfaction in Adolescents. *Eat. Disord.* **2014**, *22*, 435–449. [[CrossRef](#)]
101. Baile, J.I.; Guevara, R.M.; González-Calderón, M.J.; Urchaga, J.D. The relationship between weight status, health-related quality of life, and life satisfaction in a sample of Spanish adolescents. *Int. J. Environ. Res. Public Health* **2020**, *17*, 3106. [[CrossRef](#)] [[PubMed](#)]
102. Gråstén, A.; Yli-Piipari, S.; Huhtiniemi, M.; Salin, K.; Hakonen, H.; Jaakkola, T. A one-year follow-up of basic psychological need satisfactions in physical education and associated in-class and total physical activity. *Eur. Phys. Educ. Rev.* **2020**. [[CrossRef](#)]

103. Huhtiniemi, M.; Sääkslahti, A.; Watt, A.; Jaakkola, T. Associations among basic psychological needs, motivation and enjoyment within Finnish physical education students. *J. Sport. Sci. Med.* **2019**, *18*, 239–247.
104. Bull, F.C.; Al-Ansari, S.S.; Biddle, S.; Borodulin, K.; Buman, M.P.; Cardon, G.; Carty, C.; Chaput, J.-P.; Chastin, S.; Chou, R.; et al. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *Br. J. Sports Med.* **2020**, *54*, 1451–1462. [[CrossRef](#)]
105. Raudsepp, L.; Vink, K. Longitudinal associations between sedentary behavior and depressive symptoms in adolescent girls followed 6 years. *J. Phys. Act. Health* **2019**, *16*, 191–196. [[CrossRef](#)]
106. Kleszczewska, D.; Szkutnik, A.M.; Siedlecka, J.; Mazur, J. Physical activity, sedentary behaviours and duration of sleep as factors affecting the well-being of young people against the background of environmental moderators. *Int. J. Environ. Res. Public Health* **2019**, *16*, 915. [[CrossRef](#)]
107. Guillamón, A.R.; Cantó, E.G.; Carrillo, P.J. Health perception, physical activity and physical fitness in school children. *Cuad. Psicol. del Deporte*. **2018**, *18*, 179–189.
108. Roberts, J.A.; Clement, A. Materialism and satisfaction with over-all quality of life and eight life domains. *Soc. Indic. Res.* **2007**, *82*, 79–92. [[CrossRef](#)]
109. Ahn, S.; Fedewa, A.L. A meta-analysis of the relationship between children's physical activity and mental health. *J. Pediatr. Psychol.* **2011**, *36*, 385–397. [[CrossRef](#)] [[PubMed](#)]