

## Article

# Environmental Barriers as a Determining Factor of Physical Activity

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**Abstract:** Physical activity (PA) has been shown to be an important variable in achieving a good quality of life. The objective of this study was to determine adolescents' perceptions of environmental barriers to PA based on age, gender, geographic location, body mass index (BMI), PA index, and whether they engage in sports or not. The sample was made up of 849 adolescents aged between 12 and 17 years old. The PA Questionnaire for Adolescents (PAQ-A) and three questions on environmental barriers were used. Among the results, we should point out that adolescents hardly perceive any environmental barriers. There are no differences in the perception of barriers neither in terms of gender nor BMI. As adolescents get older, they consider that there are few recreational spaces, that the distance is not adequate, and that there is no accessibility to them or they do not encourage walking. The adolescents who perceive the greatest barriers are those who live in settlements of 10,000–50,000 inhabitants, especially those more linked to the neighborhood and to the accessibility and availability of spaces. It seems especially important to establish health policies in order to neutralize the barriers related to the accessibility and availability of spaces and the neighborhood-related barriers.

**Keywords:** environment; physical activity; environmental barriers



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## 1. Introduction

The 2013 World Health Assembly adopted the Global Plan of Action on Noncommunicable Diseases (NCDs) 2013–2020, which includes a set of actions for the Member States, international partners, and the World Health Organization (WHO) Secretariat. It became clear that unhealthy diets and physical inactivity are risk factors for major NCDs, such as cardiovascular diseases, cancer, and diabetes. Therefore, it was decided to promote healthy eating and physical activity in order to achieve these healthy habits by the year 2025 [1].

The Pan American Health Organization describes physical activity as the activity we do on a daily basis, that is, “the wide range of activities and movements that include everyday activities, such as regular and rhythmic walking, gardening, heavy housework, and dancing” [2] (p. 3).

However, the promotion of physical activity has had limited success on a variety of demographic indicators, since in many cases the social, physical, and political environments and the interactions between them and individual psychological characteristics have not been taken into account [3,4]. Environmental factors determine the level of physical activity. Schüz et al. [5] suggested that the effects of health attitudes and planning on physical activity may be moderated by environmental factors. Dollman [6] concluded in a review of articles that “physical activity behaviors were shaped by all levels of the social ecological

framework as well as interactions among these levels, resulting in a complex causal web of factors”.

On the same line of research, Wolch et al. [7] claimed that urban green spaces, such as parks, forests, streams, and community gardens, promoted physical activity, psychological well-being, and public health for urban residents. Douglas et al. [8] pointed out that when public spaces deteriorated, there was a lower rate of physical activity, showing the need for interventions in public green spaces in order to promote advances in public health, especially in communities at risk.

Although urban green spaces promote physical activity and public health, Wolch et al. [7] found that many American minority communities lacked access to green spaces, which is considered an environmental injustice. Smith et al. [9] also noted in a review study that there was a higher level of physical activity and use of the environment when there was also greater pedestrian accessibility, a greater number of parks and quality playgrounds, and an installation of active transport infrastructure, although the improvement in these infrastructures particularly benefits the socioeconomically favored groups. On the other hand, districts with a higher gross domestic product (GDP) provide better contextual opportunities for the enactment of concrete plans to boost the level of physical activity [5,10,11].

However, Barnidge et al. [12] claimed that rural residents had a higher risk of obesity than urban and suburban residents despite the fact that there is more green space in the countryside. We should also point out that most of the empirical evidence on the effectiveness of interventions comes from urban and suburban communities, and therefore further studies on rural areas are needed [12].

If we focus on the environmental barriers that determine the level of physical activity according to age we find that, in the case of early childhood, Henderson et al. [13] claimed that the strongest predictors of moderate-to-vigorous physical activity were time spent playing outdoors, appropriateness of indoor play space, and teacher encouragement for (but not participation in) indoor play.

In the case of children, access to infrastructure and public recreation space, access to sidewalks, neighborhood crime, and area deprivation may all play an important role [14–16].

Moreover, Wilk et al. [17] found no association between geographic accessibility and level of physical activity. However, these authors observed that children’s physical activity rate could be affected by the school they attend, the neighborhood they live in, and the socio-cultural barriers [18].

Parents living in rural settings reported significantly higher barriers than those living in urban settings, and community, interpersonal, and intrapersonal barriers were negatively correlated with parental support for children’s physical activity [19]. The study conducted by Taylor et al. [20] noted that children in urban and suburban neighborhoods in large cities and in rural areas reported that most of the barriers to physical activity were not related to the environmental characteristics but to the population size.

For the adult population, the most influential environmental factors are the hours of sunshine [21], the perception of safety for outdoor physical activity [19], the physical environment settings of the neighborhood, and the access to recreational facilities, trafficability, connectivity, or population density [22–24].

Regarding adolescents, the group on which this research focused, elements such as concern about safety, inaccessibility of facilities, and cost of using them have been detected as perceived environmental barriers to participating in physical activity [25], as well as adverse weather conditions (understood as too windy, too cold, or too hot) [26] and characteristics related to the neighborhood [27]. Specifically, the study by Cook et al. (2014) determined that the perception of lower barriers with respect to neighborhood safety, sport-related facilities availability at schools, and sports facilities availability at neighborhood are mediating variables in the increase in physical activity behaviors.

Given the need to establish patterns of regular physical activity early in life [28,29], we believe it is important to move toward a greater understanding of the environmental factors that affect physical activity levels in order to establish public policies focusing on context-specific factors that are susceptible to change within demographic groups differentiated by age, gender, or geographical location.

Therefore, the objective of this study was to determine adolescents' different perceptions of environmental barriers according to age, gender, geographic location, body mass index (BMI), physical activity index, and whether they engage in sports or not.

The study hypotheses were:

- Adolescents from different geographical locations will not perceive environmental barriers that prevent them from doing physical activity.
- Adolescents' perceptions of environmental barriers to physical activity change depending on the independent variables.

## 2. Materials and Methods

### 2.1. Participants

The sample was made up of 849 adolescents aged between 12 and 17 years (mean,  $M = 14.86$ ; standard deviation,  $SD = 1.67$ ) selected through random and probability sampling; 48.9% were women, and 51.1% were men. Four hundred and thirty-seven students lived in urban populations with more than 50 thousand inhabitants, 331 of the students lived in semi-urban populations between 10 and 50 thousand inhabitants, and 81 students did so in rural populations with less than 10 thousand inhabitants (classification based on National Institute of Statistics, 2021) [30].

### 2.2. Instrument

The practice of physical activity was evaluated by means of the Physical Activity Questionnaire (Adolescents), PAQ-A questionnaire, which recorded the activity carried out in the last 7 days during leisure time, physical education classes, after-school hours, and weekends. In addition, it recorded whether any illness (or other events) hindered their physical activity or sports practice [31,32].

In order to analyze the environmental barriers or perceived difficulties in practicing physical activity, a specific instrument was designed which, in addition to the items related to independent variables (age, gender, geographic location, BMI, physical activity index, and whether one engages in sports or not), incorporated three items whose response options involved a Likert scale that ranged from 0 (reason unlikely to prevent me from performing physical activity in the next few weeks) to 10 (reason most likely to prevent me from performing physical activity) points. The items were as follows: Please indicate how the conditioning factors of the practice of physical activity affect you.

Q1. The small number of recreational spaces, the distance or accessibility to spaces, not facilitating trafficability (roads are neglected or access is complicated), which assess the accessibility and availability of spaces.

Q2. Not feeling comfortable in the neighborhood because of excessive noise, construction and renovation without authorization, the existence of animals or dirtiness in the environment of one's responsibility, which assess aspects related to the environment of the neighborhood.

Q3. The facilities are scarce, not adequate, deteriorated or do not have a motivating aesthetic.

In order to establish the content and construct validity, a study of the environmental variables indicated by the current scientific evidence was first carried out. Later, the judgment of experts was used who determined that the questions were indeed based on the concepts that were intended to be measured. Following Canales (2006) [33], we also took advantage of this test with expert judges to evaluate the relevance of the language, its length, and the interest that it would potentially arouse in the respondents. The expert

judges were four experts in the promotion of physical activity in the environment and who work in the public administration (2) and expert researchers on the subject (2).

Once the quantitative data had been analyzed, a discussion group was convened with 5 sports managers from the sample municipalities (4 men and 1 woman) in order to explain some of the results. Two of them were working in a semi-rural area and the other two in an urban area. Only one lived in a rural area and performed his work in several localities in the area. The initial question for discussion was: What environmental difficulties do you perceive for the practice of physical activity by adolescents in your areas? Each of them was assigned a key where MU refers to the urban environment, RM to the rural environment, and MS to the semi-rural environment. The letter H refers to male and M to female.

### 2.3. Procedure

The questionnaire was collectively administered to the students in different schools from the Autonomous Community of Galicia (Spain) with prior authorization from both the school and families. After communicating the appropriate instructions and once the informed consent form was signed, all students voluntarily and individually completed the requested information in their group-class. The ethical research protocols were fulfilled with a special emphasis on confidentiality.

The study was carried out according to the standards established by the Declaration of Helsinki, the recommendations of Good Practice of the European Economic Community (EEC), and the Spanish legal regulations in force, and it was approved by the Autonomous Ethics Committee of Research in Galicia (CEIC 2016/522). The questionnaires were filled out anonymously on a voluntary basis by the students, once the informed consent form was signed by the children, their families, and the school.

To carry out the process of preparation and selection of the discussion group, the number of groups, people, and sessions to be held was first determined, establishing the profile that the participants should have. Next, the selected people were invited, and the session was organized (script of questions, place, and logistical aspects, among others). After the session was developed, the report of the session was prepared (participation data, date and duration, information about the course, and other observations).

Before starting, we gave all participants a document as informed consent. This document explained the objectives of the research, along with other aspects such as what their participation consisted of, its voluntary nature, the confidentiality of their responses, or their right to know the results obtained.

At the end of the session, a short summary of the key ideas collected in the discussion group was made. We tried to use the vocabulary used by the participants in order for them to indicate if they observed that any information collected was misinterpreted.

Subsequently, the data were analyzed in two phases. The first phase consisted of a global approach to the meaning of the research, grouping the responses, and reducing the data in the established categories. In this first phase, we used coding to begin to reveal potential meanings and develop ideas, concepts, and hypotheses, completing the categories but without combining or relating them, that is, we did not interpret them.

Later, in the second phase, we compared the categories looking for the possibility of generating topics. They were grouped based on certain common aspects and properties, which allowed us to interpret the reality we were studying.

The analysis ended when the categories were “saturated” and at the moment in which the problem statement was responded to and an understanding of the phenomenon under investigation was generated.

### 2.4. Statistical Data Analysis

Statistical data analysis was performed using the SPSS v.23 software (Chicago, IL, USA). First, a descriptive analysis of the three Likert-scale items (mean, standard deviation, and minimum and maximum values) was carried out. The Kolmogorov–Smirnov test was then used to determine whether the available sample corresponded to a normal

distribution, and then independent comparison tests were performed with a significance level of  $p < 0.05$ . In addition, the homogeneity of the variances or homoscedasticity was verified using the Levene test. To know if there are significant differences between the means of the independent variables and the three formulated items, we chose to use the Student's *t*-test, taking into account the size of the effect, and ANOVA for independent samples. In the case of ANOVA, when the results were significant, the Bonferroni test was calculated in order to determine between which groups the differences occurred. To calculate the correlation between the different independent variables, the Spearman–Brown correlation was used.

Cronbach's alpha for the PAQ-A questionnaire was 87 for the complete sample, which is considered very acceptable.

A value  $p < 0.05$  was considered statistically significant.

For the study of the texts collected in the discussion groups, a content analysis was carried out following this scheme: determination of the units of analysis related to each of the questions raised, selection of the units to be analyzed, coding and description of the units, data reduction and analysis [34].

### 3. Results

If we analyze the mean values, we can observe that adolescents from different geographical locations did not report experiencing any environmental barriers that prevented them from doing any type of physical activity. The highest mean value is related to the scarce number of recreational spaces and their accessibility, although this mean is rather low ( $\bar{X} = 2$ ) (Table 1).

**Table 1.** Descriptors of the questions raised (N = 849).

	Q1	Q2	Q3
M	2.00	1.57	1.69
SD	1.864	1.428	1.586
Minimum	1	1	1
Maximum	10	10	10

M: mean; SD: standard deviation; Q1, Q2, Q3: questions referring to the environmental barriers detected.

In the discussion group, all the managers agreed that adolescents were the age group that most used environmental settings and pointed out that “they usually tend to meet in the same places” (MUH). However, in rural areas, most of the activities are organized. “If activities are not organized and the meeting is forced, it is more difficult for them to use the facilities” (MRM). Regarding the urban environment, “there are no spaces available for non-institutionalized physical activity: green areas, beaches, parks, gardens and there is also poor pedestrianization” (MUH).

Therefore, adolescents do not use specific practice spaces in rural areas, and there are no specific activities designed for this environmental context. These data are consistent with the fact that most adolescents consider that there is little or no influence of the environmental barriers (Table 2).

**Table 2.** Percentages of the questions in each category (N = 849).

Categories	Q1	Q2	Q3
Not at all	66.0	76.9	75.5
Very little	10.7	9.9	7.8
Little	8.1	5.8	6.1
Some	4.4	2.2	4.0
Often	4.4	2.6	2.7
Very often	1.9	0.7	0.9
Fairly much	2.0	0.1	1.1
Regularly	0.9	0.5	0.6
Almost always	0.2	0.5	0.5
Always	1.4	0.8	0.8
Total	100.0	100.0	100.0

Q1, Q2, Q3: questions referring to the environmental barriers detected.

There are also no differences of opinion based on gender, and the means are very similar. The managers agreed with this result. *“Today all children have the same opportunities and the same time constraints”* (MSH). Therefore, there are no differences in the perceived barriers (Table 3).

**Table 3.** Student’s *t*-test by gender frequency.

	Gender	N	M	SD	<i>t</i>	Sig.	ES
Q1	Male	414	2.01	1.906	0.185	0.853	0.024 *
	Female	434	1.99	1.826			
Q2	Male	414	1.52	1.363	−1.119	0.264	−0.110
	Female	434	1.63	1.489			
Q3	Male	414	1.75	1.726	0.321	0.108	0.108
	Female	434	1.64	1.442			

\*  $p < 0.05$ . N: number of subjects; M: mean; SD: standard deviation; *t*: *t* value; Sig.: sigma; ES: effect size; Q1, Q2, Q3: questions referring to the environmental barriers detected.

In addition, there is also no difference in terms of whether they practice some kind of sport (Table 4), except in Q2 related to being unhappy with the neighborhood environment reaching an average effect size (ES = −0.419). Those who do not engage in sport perceived more barriers than those who do.

**Table 4.** Student’s *t*-test by frequency of sports practice.

	Sport Performance	N	M	SD	<i>t</i>	Sig.	ES
Q1	Yes	591	1.93	1.774	−1.591	0.112	−0.221
	No	258	2.16	2.050			
Q2	Yes	591	1.45	1.176	−3.969	0.000 *	−0.419
	No	258	1.86	1.853			
Q3	Yes	591	1.62	1.468	−1.947	0.052	−0.230
	No	258	1.85	1.821			

\*  $p < 0.05$ . N: number of subjects; M: mean; SD: standard deviation; *t*: *t* value; Sig.: sigma; ES: effect size; Q1, Q2, Q3: questions referring to the environmental barriers detected.

Regarding this aspect, the managers were unanimous in stating that kids who did not practice sports usually made some excuse for it. *“This is more likely an excuse to refuse to walk or stroll rather than a real barrier”* (MRM).

They pointed out that *“there is a move towards more sedentary leisure time and of less face-to-face socialization, a lesser social recognition of the performance and participation in federated sports activities which generates a lesser incentive towards the practice at early ages, a decrease in the social/family recognition of the importance of the physical and sport activity within the*



integral education of the individual and an incentive of individualism as a personal value from early ages" (MUH).

Adolescents living in a semi-rural environment perceive more barriers linked to the accessibility and availability of spaces, followed by those living in the urban environment (settlements of over 50,000 inhabitants), and, finally, by those living in the rural environment (settlements of under 10,000 inhabitants). They also perceive more neighborhood-related barriers if they live in a semi-rural environment compared to those living in an urban or rural setting. There are no differences with respect to the quality of the facilities (Table 5).

**Table 5.** ANOVA by frequency according to geographical location.

Types of Settlements	N	M	SD	F	Sig.	Bonferroni Test	
Q1	Semi-rural	331	2.14	1.883	1.720	0.044 *	Semi-rural-Rural = 0.010
	Rural	81	1.63	1.462			
	Urban	437	1.98	1.856			
	Total	849	2.00	1.864			
Q2	Semi-rural	331	1.75	1.594	3.448	0.008 *	Rural-Urban = 0.001 Rural-Semi-rural = 0.015
	Rural	81	1.41	0.877			
	Urban	83	1.36	0.835			
	Total	849	1.57	1.428			
Q3	Semi-rural	110	1.77	1.557	1.045	0.383	There are no differences
	Rural	81	1.42	1.071			
	Urban	354	1.68	1.593			
	Total	849	1.69	1.586			

\*  $p < 0.05$ . N: number of subjects; M: mean; SD: standard deviation; F: F value; Sig.: sigma; ES: effect size; Q1, Q2, Q3: questions referring to the environmental barriers detected.

The two managers working in the semi-rural environment said that people living in residential areas on the outskirts of large cities tended to have less purchasing power but also less awareness of the need for physical activity or a balanced diet. The rural environment usually has more infrastructure and facilities that are used by fewer people. "In recent years there has been a strong investment in sports structures and facilities in rural areas, as well as an adaptation of spaces that were abandoned, such as the setting of the old train track for walking and meeting among neighbors" (MRM).

They added that "in the rural environment adolescents tend to use the facilities and spaces longer, while in the rural and urban environment there are more people using the services" (MSH).

In addition, one should bear in mind that "these days, the adolescents live off the image. Social networks project an image of beauty and stereotypes in which physical effort, fatigue, deterioration of makeup, sweat, or 'branded shoes' stained by mud or rain are negatively perceived. Therefore, anything that disqualifies them from having the approval of social network followers is not acceptable" (MSH).

An important issue pointed out by another manager is "the problem of pollution, I don't know if there are records of a higher asthma prevalence in children and adolescents, and such pollution affects physical practice. This means that their activity is limited to a minimum by medical recommendation, and I think another solution should be sought" (MUH).

When analyzing the relationships between the quantitative variables, we found that there was a correlation between age and BMI, and between age and physical activity index, so that the older the person, the higher the body mass index and the lower the physical activity index.

There was also a significant correlation between the small number of recreational spaces, the distance or accessibility to the spaces or not facilitating trafficability (Q1), and age, although this relationship was very low. Regarding the BMI, it correlates negatively with the physical activity index and positively with accessibility and availability of spaces (Q1), with aspects related to the neighborhood environment (Q2) and with the quality of the facilities (Q3). Regarding the level of physical activity, it was correlated with accessibility and availability of spaces (Q1) and aspects related to the neighborhood environment (Q2) and not correlated with the quality of facilities (Q3). There is also a significant and positive, though low, relationship between the different questions raised (Table 6).

For managers, people who decide to do physical activity and are motivated to do so are not influenced by the barriers, although they noted that when natural spaces and facilities are prepared and cleaned, their level of use increases. The same is true if the number of facilities, such as geriatric parks that are used by all age groups, increases.

*“The quality and aesthetics of the facilities motivate towards their use and also towards their care. The nicer and cleaner the spaces are, the more they are used, not only by adolescents but by all age groups” (MUH)*

**Table 6.** Correlations between the variables analyzed.

		Age	BMI	PAQ Total	Q1	Q2
BMI	r	0.233 **				
	Sig. (bil.)	0.000				
PAQ Total	r	−0.392 **	−0.086 *			
	Sig. (bil.)	0.000	0.012			
Q1	r	0.080 *	0.070 *	−0.070 *		
	Sig. (bil.)	0.020	0.042	0.041		
Q2	r	0.039	0.102 **	−0.082 *	0.333 **	
	Sig. (bil.)	0.252	0.003	0.016	0.000	
Q3	r	0.040	0.072 *	0.008	0.333 **	0.413 **
	Sig. (bil.)	0.244	0.036	0.815	0.000	0.000

\*\*  $p < 0.01$ ; \*  $p < 0.05$ . BMI: body mass index; PAQ-Total: physical activity index; Q1, Q2, Q3: questions referring to the environmental barriers detected.

#### 4. Discussion

The purpose of this study was to determine adolescents' different perceptions of environmental barriers based on several possible variables of influence.

Generally, adolescents consider that they have no environmental barriers to the practice of physical activity, and, as usual, older adolescents have a higher BMI. We must bear in mind that as age increases, the rate of physical activity decreases, especially in women. In studies with adolescents, although the facilities and their cost appear among the barriers to the practice of physical activity, these are not viewed as priority barriers for them [35–38].

As adolescents get older, they consider that there are few recreational spaces, the distance is not adequate, and there is no accessibility to them or they do not encourage walking.

In addition, as the BMI is higher, the index of physical activity decreases and the perception of environmental barriers increases.

There are no differences in the perception of environmental barriers in terms of gender. Despite the fact that women tend to report more barriers than men, there are no differences in terms of environment or facilities [39,40].

Adolescents who do not engage in sport are more influenced by the neighborhood environment than those who do. In the study conducted by Wilk et al. [17], the neighborhood was also a limitation for the practice of physical activity. Both the lack of proximity and the absence of easy and safe access that would allow adolescents to regularly go to places where they can practice physical activity weigh heavily on adherence to thereof.

There seem to be differences in the perception of the barriers according to the environment in which they live. The adolescents who perceive the greatest environmental barriers are those who live in settlements of between 10,000 and 50,000 inhabitants, especially those more linked to the neighborhood and to the accessibility and availability of spaces; however, there are no differences in the perception of the quality of the facilities.

These results contradict some previous studies where the perception of environmental barriers is higher in the rural environment. This contradiction can perhaps be explained by the different characteristics of the rural environment in different countries. Barnidge



et al. [12] pointed out that barriers in the rural areas included cultural differences, population size, limited human capital resources, and difficulty in demonstrating the connection between social and economic policy and health outcomes. These differences do not exist in the rural communities analyzed, since these variables are similar. That is why it is important to extend this type of research so as to encompass much more concrete indicators that will make it possible to establish patterns.

Although the environment is not perceived as a barrier among young people, Wilk et al. [17] stated that it would be important to also analyze the design of cities and the environmental setting, as well as the population size, given its influence on individual decision-making that causes laziness and reluctance on the subject.

It seems to be demonstrated that the accessibility and availability of spaces and the aspects related to the neighborhood environment influence the level of physical activity. Other studies also showed the influence of the neighborhood on physical activity levels [41].

The pedestrian accessibility in the neighborhood, the quality of parks and playgrounds, and the provision of an adequate and active transportation infrastructure generate a positive impact on the physical activity of children and adults [9].

One of the limitations of the research is the fact that data gathering was cross-sectional and self-reported. An objective method of quantifying the level of physical activity (accelerometry, pedometer, etc.) would improve the quality of the paper. The results can only be applied in the context of countries with a development level similar to the Galician socioeconomic context. Furthermore, in future research, it would be desirable to expand the sample of students and experts.

## 5. Lines of Action

Although adolescents do not perceive great environmental barriers, we consider that this is because they do not use these spaces as contexts for physical activity. We also suggest a series of measures in view of the need for political actions that create spaces for these types of activities to be carried out.

Based on previous scientific evidence on the subject, it seems necessary to establish health policies and environmental interventions to promote physical activity [7,42], especially in the semi-rural context, in order to neutralize the barriers related to the accessibility and availability of spaces and the neighborhood-related barriers. To avoid these barriers, the WHO [43] recommends enabling environments and communities which would influence people's choices so that the simplest option, i.e., the most accessible, available, and affordable, is the healthiest option in terms of food and regular physical activity.

In addition, infrastructure can be improved so that people could use active transport such as bicycles or scooters, especially those who have less time or do not like to walk [42]. In fact, a correlation was demonstrated between those who use their bicycle as a means of transport and those who also use it in their free time [44]. In line with this, the WHO recommends "implementing environmental policies that influence the means of transport used by the population, or that increase the public space available for recreational activities, which can improve their levels of physical activity and therefore provide important health benefits" [45] (p. 35).

Some authors also refer to caring for the environment, spending more time outdoors, or offering more opportunities for indoor physical activity [13]. Teixeira et al. [46] pointed out that a key objective in social policies should be the provision of a wide range of outdoor activities from which young people can choose, in line with the Self-determination Theory (STD) which postulates that meeting basic needs for autonomy, competence, and affinity is important in intrinsically establishing motivated and sustained physical activity behavior.

On the other hand, the availability of urban green spaces is important, especially in poor neighborhoods. Some measures are already being implemented, i.e., the redesign of remaining urban land and the reuse of obsolete or underused transport infrastructure such as eco-roads [7].

We should not forget that the practice of outdoor activities (sailing, hiking, horseback riding, trekking, camping) contributes to maintaining a healthy, physical shape. In addition, “through recreational activities, people learn about the flora and fauna of the places they visit, about endangered species; they value wildlife and protected areas; they live spiritual experiences, by being in contact with nature; they learn about the history of the place; they appreciate the landscapes; they experience peace and tranquility; they have reduced stress levels and acquire a positive attitude towards the environment” [47] (p. 48).

In addition, awareness programs are needed to improve parents’ perception of their children’s weight so that they engage in physical activities that can prevent obesity [48].

## 6. Conclusions

Generally, the subjects under study consider that the environmental barriers to physical-sport practice are scarce. No differences were found in the perception of environmental barriers with respect to gender or with respect to BMI. However, there are differences in some of these perceptions depending on age, geographic location, physical activity index, or whether or not to practice a sport. For this reason, it is necessary to implement some of the existing recommendations to neutralize these barriers, applying them specifically to each context according to its particularities. In this case, the barriers perceived in the semi-rural environment, related to the accessibility and availability of spaces, as well as the barriers linked to the neighborhood, take on special importance.

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