

Tourist activity of young people as a factor contributing to their health and proper development

Elżbieta Biernat^{1,2}, Paweł Tomaszewski³

¹ *Warsaw School of Economics, Warsaw, Poland*

² *Maria Skłodowska-Curie Warsaw Higher School, Warsaw, Poland*

³ *Jozef Pilsudski University of Physical Education, Warsaw, Poland*

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Abstract

Introduction and Objective: The aim of this paper is to assess the level of tourist activity of pupils and students from schools in Warsaw, as well as factors influencing this level of activity.

Methods: A two-part questionnaire was used that included questions related to participation in tourist trips (day, long, short, and trips abroad) and the International Physical Activity Questionnaire (IPAQ).

Results: Among the analyzed factors (gender, level of school, level of physical activity), only the level of school turned out to be the factor which significantly ($p=0.000$) influenced the physical activity of the respondents. It was observed that tourist activity among pupils and students decreased with age.

Conclusion: There is an urgent need for a systematic approach towards promoting and supporting the participation of children and young people in tourism, as well as setting examples of how to travel and rest. Carrying out intervention programmes demands the further identification of factors determining them (e.g. influence of parents' leisure time behaviour), as well as the application of standardized research tools.

Key words

tourist activity, physical activity, health, pupils, students

INTRODUCTION

The predominant purpose of school activity around the world is the comprehensive development of pupils [1]. In accordance with this, schools should provide students with conditions indispensable for harmonious intellectual, physical, and psychological development, as well as pro-health activities [2, 3], including the formation of skills and abilities for taking care of one's own body, health, and fitness [4, 5]. In Polish schools, the aims and educational tasks of physical education and public sports, including active tourism, are included in the current core curriculum.

Current tourism – as a dynamic, multidimensional, and interdisciplinary phenomenon – may significantly support this process. It may constitute a substantial educational tool (shaping desired patterns of behaviour) and may stimulate the young generation. Although we do not talk directly about its didactic role, all roles played by tourism (educational, cultural education, shaping ecological awareness) have the broadly understood aspects of education [6]. It is important for the process of education that tourism may develop the personality of a young person and lead to improvements in his/her fitness and function. Physical effort made by a tourist during trekking, in an environment healthy for people, definitely contributes to improved fitness and, at the same time, improves health. Taking into consideration the role and influence of tourism on health and the comprehensive development of children and young people, the tourist

activity of this group should be constantly monitored, and it seems that both quantitative observation, as well as qualitative observations regarding the changes of tourist behaviour, are necessary. To date, the issue of tourist activity has been researched mainly amongst adults, especially in terms of marketing [7, 8]. The educational aspects of tourism and its connection with young people's health and physical activity have been studied to a much lesser extent. Moreover, available studies have focused mainly on descriptions of disease entities and health risk associated with undertaking international travel [9, 10, 11]. Hence, the purpose of the presented study paper is to assess the level of tourist activity of pupils and students from schools in Warsaw, as well as the factors related to this level. Due to the fact that needs and interests related to tourist activity in human life may change over time, pupils in the last year of middle school and pupils in the last year of high school, as well as students in the second and fourth years of university studies, were the subjects of the study.

MATERIALS AND METHODS

The study included 2,102 randomly selected pupils in the last year of middle school and pupils in the last year of high school ($n=521$ and $n=500$, respectively), as well as students in the second and fourth years of studies ($n=486$ and $n=596$, respectively) from Warsaw's State universities. The study was conducted after the end of the summer tourist season (November 2008–2009) and the winter tourist season (March 2009–2010). In order to select the test group, a two-stage stratified random sampling system was applied. The first

Address for correspondence: Elżbieta Biernat, Warsaw School of Economics, Niepodległości 162, 02-554 Warsaw, Poland
e-mail: elzbieta.biernat@sgh.waw.pl

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step was to select 6 State universities, 14 high schools, and 13 middle schools. In the second step, a 30% sample group was selected from among university students. Among students in their second year of university studies, the interviews were conducted during language classes, while among the students in their fourth year of studies, interviews occurred during lectures. In all of the randomly selected schools (middle and high schools), one class of a certain level was selected and pupils from that class who were present at the day of study were interviewed.

The study was conducted using a survey method. Trained and supervised interviewers led direct (standardized) interviews according to a specific plan (the number of questions and their content were identical for all respondents). The percentage of refusals to answer survey questions was small, and limited within a range of 3% – 5%.

The poll – modified after the pilot version – was composed of two parts. The first part was a short version of the International Physical Activity Questionnaire (IPAQ) [12], which was used to assess the level of physical activity. The second part concerned participation in tourism in the previous year. The respondents were asked about journeys (participation in even one tourist trip in the studied period); type of trip (day trip – without accommodation; short trips – up to 4 days with at least one night's accommodation away from home; long trips – more than 5 days with at least 4 nights' accommodation away from home; and trips abroad – with at least one night's accommodation [13]); frequency (the number of trips in which the respondents took part); purpose of the trip; and in the case of trips abroad, also their destination. In the case of day trips, respondents defined the frequency of trips using the interval scale (below 10 times, 11–20 times, and above 20 times a year); in the remaining types of trips they defined the exact number of trips. Apart from information relating to participation in tourism, the interviewers gathered information related to gender and age. The number of the respondents in given categories is presented in Table 1.

Table 1. Number of studied subjects (n=2102) within given category.

Variable	n	%
Gender		
Male	972	46.2
Female	1130	53.8
School/University		
Middle school	521	24.8
High school	500	23.8
University – 2 nd year	486	23.1
University – 4 th year	595	28.3
Physical Activity Level		
Low	593	28.2
Moderate	1265	60.2
High	244	11.6

On the basis of information obtained by using the IPAQ regarding the frequency and the duration of physical efforts (intensive, moderate, and walking) undertaken by the respondents the week before the study, the level of the respondents' physical activity was assessed (high, moderate or low) after standardized counting [14]. During this analysis,

43 persons who, during the week before the study was conducted, were ill, stayed in hospital, or were rehabilitated, etc., were excluded from the study.

Tourist activity was assessed using the Touristic Activity Index (TAI) and estimated as follows: each trip (depending on its duration) was given a certain amount of points, trips without accommodation were assigned 1 point, 2–4 day trips – 2 points, ≥ 5 day trip – 3 points, and trips abroad – 4 points. The lack of a journey equaled 0 points. On the basis of those figures, the general number of points for a particular type of trip was calculated. The value ascribed to a given type of trip was multiplied by the number of such trips (in the case of a trip without accommodation, it was multiplied by the value representing the middle of a particular range), after which all the points for certain types of trips were summed up. On the basis of the variable finally obtained – the Tourist Activity Index (TAI) – the respondents were grouped into one of three levels: low, moderate, or high. Persons for whom the TAI value was lower than the value of the first quartile belonged to the low level, while the respondents whose TAI index was higher than the third quartile belonged to the high level. The remaining respondents were ascribed to a moderate level of tourist activity.

Correlations between day trips (without accommodation) and the TAI, gender, level of school, and respondents' level of physical activity were evaluated on the basis of log-linear analysis. In order to determine the optimal model for testing, values of the chi-square test for main effects without interaction were calculated, and extended models were analysed considering higher-order interaction. The significance of the analyzed correlations in the test model was evaluated on the basis of partial correlations and boundary correlations. A boundary correlation allows for the comparison of the model without any interaction with the model, including only a given correlation. Hierarchical models were tested with different interactions. In order to fit the model with the observed values, an iterative procedure was performed, which was interrupted when the difference between the observed and fitted boundary distributions was not greater than the convergence criterion = 0.01. The differences between particular categories of quality variables were analyzed on the basis of the chi-square test. Data pertaining to the respondents' participation in short, long, and abroad trips and to the value of the TAI index were analyzed using multidimensional analysis of variance (MANOVA) (gender \times school type \times level of physical activity). The comparisons of particular pairs of averages were conducted *post hoc* using the Tukey test. The results obtained in analyses are presented using average values, standard deviations, medians, fractions, and odds ratios with 95% confidence intervals. The analyses were performed using the STATISTICA 9.0 PL statistics package. The significance level of $p < 0.05$ was assumed in assessing the significance of effects.

RESULTS

On the basis of partial correlations and boundary correlations evaluated in a log-linear analysis, it was found that all variables considered in the model, i.e. gender (partial $\chi^2=12.8$; $p=.005$), level of school (partial $\chi^2=20.02$; $p=.017$), as well as respondents' level of physical activity (partial $\chi^2=24.1$;



$p=0.00$), constitute factors significantly associated with participation in day trips. Respondents' declarations relating to frequency of day trips indicated that the highest percentage (42–53%) of the respondents took part in such types of trips between 11 – 20 times a year, whereas the percentage of the respondents who declared participation in this type of trips less than 10 times and more than 20 times a year was comparable in all the analyzed categories (Tab. 2).

Table 2. Percentages of subjects declaring number of day trips during last year in relation to gender, level of education and physical activity level.

Variable	Day trips			
	≤10 times	11-20 times	>20 times	None
Gender				
Male	21.7	44.1	20.4	13.8
Female	16.5*	50.4*	20.3	12.9
School/University				
Middle school	15.5	53.2	19.4	11.9
High school	15.2	51.8	17.2	15.8
University – 2 nd year	22.2 [#]	42.6 [#]	22.2	13.0
University – 4 th year	22.2 [#]	42.9 [#]	22.2	12.8
Physical Activity Level				
Low	24.6 [^]	43.5	20.7	11.1
Moderate	17.9	48.6	20.3	13.1
High	9.8 ^{^o}	51.2 ^{^o}	19.3	19.7

* Significantly ($p<0.05$) different from males

[#] Significantly ($p<0.05$) different from middle or high schools

[^] Significantly ($p<0.05$) different from moderate

^o Significantly ($p<0.05$) different from low.

The results of the detailed analysis indicated that females stated their participation in day trips much more frequently than males (50.4% vs. 44.1% for 11–20 trips, respectively; 16.5% vs. 21.7% for number of trips less than 10). A similar pattern was observed in the case of middle school and high school pupils: such students took part in day trips much more frequently than students in the second and fourth years of university studies.

People with a high level of physical activity took part in day trips relatively more frequently in comparison to people with a low level of physical activity: 51.2% of respondents with a high level of physical activity took part in journeys between 11 – 20 times a year, in comparison to 43.5% for those with a low level. In cases where the number of trips was lower than 10 times a year, the situation was reversed; the percentages were 9.8% for respondents with a high level of physical activity, 24.6% for people with a low level of physical activity. The highest percentage of a lack of participation in day trips – reaching 20% – was observed amongst respondents with a high level of physical activity.

Table 3 presents detailed information pertaining to average number of particular types of trips, as well as an Index of Tourist Activity (TAI).

Multidimensional analysis of variance (MANOVA) demonstrated that the level of school was the only factor that significantly influenced the average number of long trips taken by respondents ($F=4.21$; $p=0.06$), abroad trips ($F=3.66$; $p=0.013$) and the values of TAI index ($F=2.85$; $p=0.036$) of the respondents; however, a similar effect was not stated with reference to short trips ($F=1.86$; $p=0.13$). In the case of the other analyzed factors, i.e. gender and level of physical

Table 3. Percentages of subjects ($n=2102$) declaring participation in short-term, long-term, or trips abroad and mean (\pm SD and median) number of these trips and of touristic activity index (TAI)

Variable	Trips						TAI
	Short-term		Long-term		Abroad		
	%	x \pm SD(M)	%	x \pm SD(M)	%	x \pm SD(M)	
Gender							
Male	84.0	5.3 \pm 6.2(3)	92.6	2.7 \pm 2.4(2)	49.0	0.8 \pm 1.1(0)	34.4 \pm 18.9(31)
Female	82.6	5.2 \pm 5.9(3)	90.9	2.7 \pm 2.3(2)	51.3	0.8 \pm 1.1(1)	35.3 \pm 18.3(32)
School/ University							
Middle school	76.8	4.4 \pm 5.2(3)	96.4	3.0 \pm 2.4(2)	47.0	0.8 \pm 1.0(0)	34.4 \pm 18.3(31)
High school	80.6	4.2 \pm 5.5(3)	87.8	2.4 \pm 2.2(2)**	43.4	0.6 \pm 0.9(0) [#]	31.0 \pm 17.9(28)*
University – 2 nd year	89.5	6.9 \pm 7.7(5)	90.5	3.0 \pm 2.7(2)	52.1	0.8 \pm 1.1(1)	39.2 \pm 21.4(35)* [^]
University – 4 th year	95.6	5.3 \pm 5.3(4)	94.3	2.5 \pm 1.9(2)**	58.0	0.9 \pm 1.3(1)* [^]	35.1 \pm 16.1(33)* [^]
Physical Activity Level							
Low	86.5	5.5 \pm 6.4(3)	93.1	2.6 \pm 2.0(2)	52.6	0.8 \pm 1.0(1)	34.9 \pm 17.7(31)
Moderate	84.2	5.0 \pm 5.7(3)	92.5	2.7 \pm 2.3(2)	49.2	0.8 \pm 1.1(0)	34.7 \pm 18.3(32)
High	81.6	5.3 \pm 6.8(3)	90.2	3.0 \pm 2.8(2)	51.2	0.9 \pm 1.2(1)	36.1 \pm 21.8(32)

* Significantly ($p<0.05$) different from middle school

[^] Significantly ($p<0.05$) different from high school

[#] Significantly ($p<0.05$) different from university 2nd year

activity, as well as correlations between them, no significant results were obtained pertaining to the analyzed dependent variables.

The average total weekly energy expenditure of all the respondents was 1,527.9 \pm 1,852.3 MET min-week⁻¹ (among male 1,679.0 \pm 2,058.4 and female 1,398.3 \pm 1,645.0). The average total weekly energy expenditure of the pupils in the last year of middle school was 2,314.3 \pm 1,031.0 (2,493.2 \pm 2,899.6 and 2,162.5 \pm 2,607.6, respectively), pupils in the last year of high school – 2,138.2 \pm 1,919.2 (2,601.7 \pm 2,283.6 and 1,744.5 \pm 1,434.6, respectively), students in the second year of university studies – 884.4 \pm 707.8 (respectively, 931.2 \pm 778.4 and 844.7 \pm 640.8), and students in the fourth years of university studies – 867.3 \pm 673.1 (837.7 \pm 670.0 and 893.4 \pm 675.8, respectively).

As presented in Table 3, short trips with a frequency ranging from 4 – 7 times a year were dominant in all of the analyzed groups. Long trips and trips abroad were much more infrequent; respondents declared their participation in these kind of trips three times and one time during the last year, respectively.

On the basis of the detailed comparisons of averages, it was revealed that among all analyzed groups of young people, students in the second year of university studies were characterized by the highest number of all types of trips and the highest TAI value. In turn, high school students showed the lowest level of tourist activity, as well as the lowest average number of short and long trips, as well as trips abroad (cf. Tab. 3).

The correlation between a respondent's level (low, moderate, high) of tourist activity and gender, level of school, as well as physical activity, was defined on the basis of log-linear analysis. As a result of an analysis of partial correlations

and boundary correlations, it was found that the level of school was significantly connected with respondents' level of tourist activity (partial $\chi^2=59.75$; $p=0.000$), while gender and physical activity did not reveal such a relationship (partial $\chi^2=2.98$; $p=0.23$ and partial $\chi^2=7.17$; $p=0.13$, respectively). The obtained results confirm the observations revealed in previous analyses, in which only level of school turned out to be a factor that influenced respondents' tourist activity. As in the case of varying types of trips, the lowest level of tourist activity was observed among high school students (34% of the respondents were characterized by a low TAI level), who in comparison to middle school students were more than 1.5 times less likely ($OR=0.6$) to reach a high level of tourist activity. In turn, the highest level of tourist activity was observed among students in their second year of studies who, in comparison with middle school teenagers, were almost twice as likely ($OR=1.91$) to reach a high TAI value. It is interesting that among pupils from middle school and high school, as well as university students, a decrease in tourist activity with age is observed – which manifests itself in the fact that respondents from the younger age groups reached higher levels of tourist activity (e.g., high TAI: 24.2% and 18.2% for pupils from middle school and high school, respectively; 34.2% and 25.5% for students in their second and fourth years of studies, respectively).

Table 4. Factors determining tourist activity of students ($n=2102$), odds ratios (OR), and 95% confidence intervals (95% CI) for achieving moderate or high levels of tourist activity index.

Variable	Touristic Activity Index			p	OR (95% CI)	
	Low	Moderate	High		Moderate	High
Gender				NS		
Male	26.5	49.2	24.3	1	1	
Female	24.0	49.6	26.5	1.11(0.91-1.37)	1.20(0.95-1.52)	
School/University				0.000		
Middle school	27.1	48.8	24.2	1	1	
High school	34.2	47.6	18.2	0.78(0.59-1.03)	0.60(0.43-0.85)	
University – 2 nd year	19.8	46.1	34.2	1.28(0.94-1.76)	1.91(1.35-2.69)	
University – 4 th year	20.3	54.1	25.5	1.47(1.10-1.96)	1.39(1.00-1.95)	
Physical Activity Level				NS		
Low	24.3	49.4	26.3	1	1	
Moderate	25.4	50.0	24.6	0.98(0.77-1.24)	0.90(0.68-1.18)	
High	26.2	45.9	27.9	0.85(0.59-1.22)	0.98(0.66-1.48)	

NS – non-significant

Odds ratios (OR) were computed with reference to the low level of tourism participation

Results of the analyses reveal that the most common aims of journeys were leisure (81.4% of respondents), a visit to relatives and friends (49.1%), as well as recreational trips to an allotment garden (18.4%). The remaining aims of trips (business, therapeutic, religious, and other) were declared by 0.8–7.4% of the respondents. However, it was revealed that in a few instances, the aim of a journey was different, depending on the type of trip. Hence, trips to an allotment garden and visits to relatives and friends were relatively less

frequently declared ($p<0.05$) during long trips (2.9% and 26.4%, respectively) than during short trips (21.3% and 57.3%, respectively) and day trips (30.9% and 63.6%, respectively). It was the other way round in the case of tourist and leisure aims: because of these aims, long trips were chosen much more frequently (92.0%) than short (75.7%) and day trips (76.6%).

In the case of trips abroad, the respondents most frequently declared a journey to European countries (62.2%), mainly to Italy (7.0%), Germany (6.7%), Great Britain (5.9%), and Slovakia (5.6%). Journeys to other continents were declared less frequently: 3.6% Africa, 3.2% Asia, 2.8% South America, and 0.5% North America.

DISCUSSION

In accordance with a directive of the Ministry of Sport and Tourism of the Republic of Poland dated 26 February 2002 [15], education through tourism in the current Polish educational programmes occupies a significant place. The priorities are ecological education, education in terms of cultural legacy and sightseeing, and education promoting recreation and active leisure. The significance that tourism has on the health and proper development of children call for constant monitoring of factors that influence increases in tourist activity [16, 17]. This is also supported by alarming data showing that almost a half of young Europeans do not engage themselves in the recommended amount of physical activities indispensable for staying healthy [18]. As stated on the official website of the Ministry of Sports and Tourism [15], in Poland, only 20% of students practiced different forms (disciplines) in 2005 in which the type and intensity of exercise burden satisfied the basic physiological needs of the human organism, while in 2007 [19], the percentage of students engaged in sports activities was not higher in comparison to year 2005, as it was only 30%. A similar phenomenon was noted in Great Britain [20]. Among the respondents aged between 5 – 18, as many as 3 out of 10 boys and 4 out of 10 girls were characterized by insufficient physical activity. American authors [21] of the Sports, Play and Active Recreation (SPARK) programme claim that only 10% of scholastic physical education programmes provide students with the physical effort recommended by the World Health Organization (WHO) [22]. Nettlefold et al., [23] confirm that only 1.8% of girls and 2.9% of boys reach recommended levels of exercise during physical education. Hence, physical activity should be promoted using different means – both at school and beyond [2, 24].

Tourism constitutes a natural form of active leisure, as it creates a perfect opportunity to increase the general level of physical activity. Unfortunately, the passive forms of tourism, such as sunbathing, are undertaken too often. Taking this into consideration, the Polish National Health Programme has stated that beginning in 2015 the percentage of children and young people practicing various forms of exercise (including tourist forms) in their leisure time should be increased to up to 60%. It may seem that in the surveyed group of middle school/high school pupils and university students from Warsaw, the aforementioned assumptions have been fulfilled (in terms of the IPAQ results, a moderate level of physical activity was reached by 60%, a high level by more than 11%). However, it should be understood that the



IPAQ assesses the total level of physical activity on the basis all undertaken efforts (including, e.g. locomotive activity or chores), not only on the basis of active forms in leisure time. Despite this fact, it seems that a high level of physical activity should be reflected in the TAI activity. However, a log-linear analysis does not confirm this correlation. This fact is puzzling and leads to the following conclusion: passive forms of relaxation are still dominant among university, high school, and middle school students from Warsaw, instead of the currently promoted active forms of tourism. This is confirmed to some extent by reports published in 2011 by the Polish Institute of Tourism [25]. According to this report, improved fitness (mainly thanks to gymnastics, physical exercises, long walks and trips, swimming, or sports games) constitutes an aim of long and short trips only for 35% and 31% of young people aged between 15 – 19 years, respectively. In 2011, these percentages were much lower – 30% and 11%, respectively.

In the presented study, a connection between tourist activity and socio-demographic factors was also analyzed, one of which is gender. The majority of scientists present girls as being less active [26, 27], and who prefer passive forms of tourism [28, 29]. However, there are also scientists who do not confirm such a connection [30]. Similarly, this study shows no dependency between the index of tourist activity of respondents from Warsaw and the respondents' gender.

The only significant factor (among those evaluated) in determining the level of tourist activity is the stage of education. Richards and Wilson [28] claim that students belong to the most active tourist group. However, a high percentage of travel was obtained not only among university students, but also among high school and middle school students subject to the study. Day trips were declared by 78% of university students and 85% of high school and middle school pupils: short trips – 93% and 72%, respectively; long trips – 93% and 92%, respectively. Further, 55% of university students and 45% of high school and middle school pupils took part in trips abroad – a higher rate than young citizens aged 15 – 25 in France (21%), Germany (14%), and Great Britain (12%); [22, 31]. In the 1990s, Bywater [32] noticed a rapid growth of touristic activity of young people from Eastern Europe. However, it is worth emphasizing that despite a high number of declarations of taking part in trips, the frequency of those trips was not high among university students and middle school/high school pupils and amounted to short trips – 6.1 and 4.3; long trips – 2.8 and 2.7; trips abroad – 0.9 and 0.7 a year, respectively, as reflected in the level of tourist activity of the respondents. A high level was only reached by approximately 30% of the university students and by approx. 20% of high school and middle school pupils from Warsaw, whereas university students were characterized by it relatively more frequently. Hence, the statement that tourist education takes place at school level is debatable. At the same time, a tendency – observed by Allender et al. [33] – to decrease tourist activity when starting the higher levels of education (moving up from year to year at school and at university) was noticeable. The tourist activity of students finishing high school (18%) is lower in comparison to middle school students (24%), which may result from the fact that high school students have to prepare themselves for school leaving exams.

The fact that university students take part in trips much more frequently than high school/middle school pupils is

natural. They are more mature, independent (also financially independent), and often live and study in places other than their hometown. Academic programmes such as Socrates (including Erasmus and Lingua) and Leonardo offer the possibility of travelling and working in the European Union for more than 10,000 young people and students every year [28, 34, 35]. This indirectly confirms a business aim found in student trips (5.7%). However, an alarming fact is that after an increase in the level of tourist activity seen after achieving a place at a university (in the second year of studies, high TAI – 35%), the level decreases while students are in their fourth year (26%). It might be assumed that the reasons for this are internships, training periods, and work (a very frequent phenomenon at Polish universities). This is worrying because, with age and a greater awareness of one's own health, a growth in the level of tourist activity is not observed amongst the whole surveyed group. A consequence of that might be lack of the habit of spending leisure time actively, and the ensuing low level of physical activity in adulthood. It is the period of childhood and adolescence that behaviour shapes future life and has an effect on health that is encoded in young people's minds. Public Health is not simply about the health situation in individuals, but essentially about the Health of Populations [36]. Hence, tourist, recreational and sports activities should play an important role in creating health consciousness attitudes.

The presented study shows the shortcomings of the Polish process of education in this respect. However, the results should be approached with a healthy dose of scepticism. The evolution of needs and interests in an active lifestyle of Polish children is linked to a large extent with their parents' activities – the examples they set of spending leisure time, their finances and free time. This is shown by the declared aim of trips – a visit to relatives and friends and trips to an allotment garden. It is considered that the lack of proper information on the extent to which parents influence the tourist behaviours of their children makes it difficult to definitely assess this phenomena.

Additionally, it seems that the lack of a standardized, statistical tool – such as the IPAQ [14], which evaluates a level of physical activity – that could be used to classify different levels of tourist activity makes direct comparisons between various populations difficult. It causes cut-off of the level of tourist activity that are defined on the basis of certain quartiles, which might not be identical with reference to other populations.

Summing up, there is an urgent need for a systematic approach towards promoting and supporting the participation of children and young people in tourism, as well as setting examples of how to travel and rest [29, 37, 38]. Carrying out intervention programmes demands further identification of the factors determining it (e.g. the influence of parents' leisure time behaviour), as well as the application of standardized research tools.

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