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Physical activity opportunities in public and private schools from Curitiba, Brazil

Oportunidades para a prática de atividade física em escolas públicas e privadas de Curitiba, Brasil

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Abstract – The school represents an space with opportunities for physical activity (PA) practice in children and adolescents. However, there is still limited evidence on local strategies, structures and policies for PA in the school environment in Brazil. The aim of the study was to identify PA opportunities in public and private schools in Curitiba, Brazil. A total of one hundred sixty one schools were identified from a household survey conducted with adolescents from Curitiba, Brazil from which 107 (72.6% publics) participated in this study. One physical education teacher from each participant school was interviewed. Nearly all schools offered two weekly PE classes (97.1%), lengthing 45 to 50 minutes (95.7%). PE annual training was more frequent among public schools (92.9%). Most schools offered one recess interval (92.3%). However, recess interval of 16-30 minutes (75.0%), supervised (65.6%) and with PA equipment (65.6%) were more frequent among private schools. After school activities were offered in eight out of ten schools, and PA opportunities in other contexts were more frequent in private schools (40.0% vs. 14.3%, p = 0.003). However, more public schools participated in state sponsored programs (57.6% versus 31.2%, p = 0.011). Opportunities for PA in the investigated schools is offering by insufficient frequency and length for promoting PA at the recommended levels in this context.

Key words: Adolescent; Exercise; Schools.

Resumo – *A escola representa um espaço com oportunidades para a prática de atividade física (AF) em crianças e adolescentes. Contudo, ainda são escassas evidências relacionadas às estratégias, estruturas e políticas locais de AF escolar no Brasil. Objetivou-se identificar as oportunidades para a prática de AF por meio de entrevista com os professores de EF, e compará-las entre escolas públicas e privadas de Curitiba (PR). Foram identificadas 161 escolas a partir de um inquérito domiciliar transversal realizado com adolescentes de Curitiba/Pr. No total, participaram da pesquisa 107 escolas (72,6% públicas). Os professores de Educação Física (EF) responderam um questionário multidimensional. A quase totalidade das escolas oferecia duas aulas semanais de EF (97,1%) com duração de 45 a 50 minutos (95,7%). A capacitação anual para professores de EF foi mais frequente nas escolas públicas (92,9%). A maior parte das escolas oferecia um recreio no período de aula (92,3%), no entanto, nas escolas privadas, recreios com duração de 16 a 30 minutos (75,0%), supervisionados (65,6%) e com materiais disponíveis (65,6%) foram mais frequentes. As atividades no contraturno eram ofertadas em oito a cada dez escolas, contudo, a oferta de AF em outros contextos foi mais frequente nas privadas (40,0% vs. 14,3%; p=0,003). Contudo, a participação no programa "Saúde na Escola" foi maior nas escolas públicas (57,6% vs. 31,2%; p=0,011). As oportunidades para prática de AF nas escolas investigadas estão sendo ofertadas com frequência e duração insuficientes para a promoção de AF recomendada para adolescentes nesse contexto.*

Palavras-chave: *Adolescente; Exercício; Escolas.*

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INTRODUCTION

It is estimated that only two out of ten adolescents are physically active[1]. Increasing the practice of physical activity (PA) in this population group is therefore one of the public health priorities. In this context, school represents an important space for the promotion of PA in this age group[2], since it is a recognized social institution, where a large part of adolescents spend about one third of their day in this place and presents potential to increase the participation of children and adolescents in PA.

In this sense, international studies[3-5] have focused on the school environment in order to identify characteristics related to healthy habits among young people, such as the practice of PA. The availability of facilities for PA, as well as the design of the school environment, the quality of school recess and Physical Education (PE) classes, the social support of teachers and family are associated with the practice of PA[3,5]. In a recent study, the practice of PA in school was related to the presence of policies to encourage PA in these places, such as changes in the school curriculum and training of teachers and school staff[2].

The literature points out that opportunities for the practice of PA in school should not be limited only in PE classes, but also in other contexts such as school recess and extracurricular activities[2,3,5,6]. In 2011, the Evaluation of the Effectiveness of PA Programs in Brazil[4] identified as main strategies for the intervention of PA in schools the training of PE teachers, modifications in PE curricula, access to equipment and materials and adjustment of interventions for the specific target population. However, it is known that in Brazil, the implementation of actions to promote PA in the school faces several barriers, with emphasis on the low salaries and devaluation of teachers, as well as curricular and methodological aspects in PE classes[6].

It is also believed that the strategies adopted by schools related to PA can vary according to the type of institution (public *vs.* private schools), given that schools have the freedom to structure their Political Pedagogical Project according to their requirements. Therefore, it is necessary to identify the opportunities for the practice of PA in schools. This study sought to identify opportunities for the practice of PA through interviews with PE teachers, and to compare them between public and private schools of Curitiba (PR).

METHODOLOGICAL PROCEDURES

Study design

The present study is characterized as a secondary survey to a cross-sectional household survey conducted with adolescents from different regions of Curitiba (PR), titled "Projeto ESPAÇOS Adolescentes", described in detail in a previous study[7]. Firstly, schools were identified, and later these were contacted and invited to participate in the research. This study was approved by the Ethics Research Committee of the Pontifical Catholic University of Paraná (136,945).

Contact with schools

A total of 161 elementary and high schools (EFSF) were identified, of which 97 (60%) of the public and 64 (40%) of the private education system. Then, an authorization was requested from the State and Municipal Departments of Education to carry out collections. The principals of schools were contacted for the purpose of scheduling a visit to clarify the research. Given the number of schools visited, it was defined by researchers that the principals would be asked to schedule the interview with PE teachers, preferably that with the longest service in the respective school. School principal and teacher signed the informed consent form (TCLE).

Inclusion and exclusion criteria

Schools located in the city of Curitiba (PR) that offered EFSF and/or high schools that presented PE classes in their curriculum were considered eligible. Schools in which teachers did not respond to the questionnaire were excluded.

Data collection procedures

Data collection took place between September 2013 and May 2014. Previously, a data collection team with four researchers was trained to clarify doubts about interview procedures. Each teacher was individually interviewed at the school where he worked. The average interview time was 35 minutes.

Data collection instrument

This study evaluated opportunities for the practice of PA in the school, the set of actions, programs and activities, regular or occasional, which are promoted or are present in the educational institutions included in the survey. To identify the opportunities for the practice of PA in the school, the "Evaluation of the Promotion of Physical Activity in School (APAFE)" instrument was used. This instrument is an adaptation of the School Physical Activity Policy Assessment (S-PAPA), developed and validated with 31 PE teachers from the United States[2]. The reproducibility of the original instrument presented values considered "moderate" or "near perfect" (Kappa 0.42-0.87)[2]. APAFE is composed of a session of general school contexts, such as level of education offered, structures related to the practice of PA, and three specific modules that include: module 1 (48 items) - Physical Education: identify the characteristics of PE teachers, content and curriculum of classes, and funds allocated to PE; module 2 (33 items) - Recreation: measures the characteristics of the school recess, such as recess duration, characteristics of recess activities and presence of supervisors; module 3 (25 items) - Extracurricular activities: verify the presence of extracurricular activities related to the practice of PA, such as, for example, programs in the after school activities. The APAFE reproducibility (adapted instrument) presented values similar to the original instrument, being considered "moderate" to "near perfect"

(Kappa 0.47-0.81), and agreement percentage above 80%. In general, the instrument presents as options "no", "yes" and "do not know", multiple choice and open questions.

Data analysis

Data were tabulated in the Epidata Entry software. In the data analysis, absolute and relative frequency distribution was performed. To verify the differences between public and private schools in relation to the variables analyzed, the Chi-square test and the Fisher's test were used. The significance level was set at $p < 0.05$. All analyses were performed in the statistical package SPSS version 23.0.

RESULTS

Of the 161 schools identified, 18 refused to participate in the survey (11.0%), 11 did not respond to contact (9.0%), 10 were ineligible (6.0%) and 05 did not present information about the variables evaluated in this study (3.1%). In total, 117 PE teachers were interviewed (72.6% from public schools). Regarding the general characteristics, most schools had between 500 and 1,000 students (36.8%), and most (public 74.1%, private 68.8%) reported not using other spaces such as parks, squares or public gymnasiums during PE classes (data not shown).

Table 1 presents characteristics related to the opportunities for practicing PA during PE classes, recreation and extracurricular activities. Most schools offered two week PE classes for both EFSF (97.1%) and high school (78.9%), and only public high schools offered four weekly PE classes (18.8%). Almost all schools have PE classes lasting 45 to 50 minutes (95.7%), while 92.9% of public schools offered annual training for PE teachers, and half of private schools (51.6%) carried out this action. Approximately nine out of ten schools (88.0%) had budget for PE classes, and the acquisition of materials requested by the PE teacher is "always" carried out in half the schools (51.7%).

Almost all schools offered only one recess per school shift (92.3%), but one in five private schools (21.9%) offered two or more recesses ($p = 0.002$) per school shift (table 2) . The proportion of schools with 16 to 30 minutes (75.0%) of supervised PE (65.6%) with adequate material (65.6%) was higher in private than in public schools.

Extracurricular activities were offered in one in five schools (Table 3), but were more frequent in private schools (40.0%) compared to public schools (14.3%; $p = 0.003$). Most schools offered after school activities (public: 81.2% and private: 93.8%, $p = 0.149$). Approximately nine out of ten schools addressed the theme "Health Promotion" in their curriculum and 50.4% participated in the "Health promotion in school" program, and participation in this program was higher in public schools (57.6%) than in private schools (31.2%, $p = 0.011$). Only public schools participated in the community-in-school program (12.9%).

Table 1. Characteristics of opportunities for the practice of PA during Physical Education classes in public and private schools. Curitiba (PR), 2014.

	Teaching network							
	Public (n=85)		Private (n=32)				Total (n= 117)	
	n	%	n	%	X^2	p	n	%
PE								
EFSF PE (classes/week)								
1 class	1	1.3	-	-	1.033	0.309[F]	1	1.0
2 classes	76	97.4	24	96.0			100	97.1
3 classes	1	1.3	1	4.0			2	1.9
High school PE (classes/week)								
1 class	2	3.1	5	19.2	*-	-	7	7.8
2 classes	50	78.1	21	80.8			71	78.9
4 classes	12	18.8	-	-			12	13.3
Duration of PE classes (minutes)								
45-50	82	96.5	30	93.8	0.421	0.613[F]	112	95.7
55-60	3	3.5	2	6.2			5	4.3
Annual training for PE teachers								
No	6	7.1	15	48.4	25.581	<0.001	21	18.3
Yes	78	92.9	16	51.6			94	81.7
Budget for PE								
No	11	12.9	3	9.4	0.278	0.725[F]	14	12.0
Yes	74	87.1	29	90.6			103	88.0
Purchase of requested PE materials								
Few times	14	16.5	9	29.0	4.701	0.095	23	19.8
Often	22	25.9	11	35.5			33	28.5
Always	49	57.6	11	35.5			60	51.7

PE = Physical Education. EFSF = elementary school of final grades. X^2 = Chi-square; F = Fisher's test. * = due to data distribution, it was not possible to apply the statistical test.

Table 2. Characteristics of opportunities for the practice of PA during recess in public and private schools. Curitiba (PR), 2014.

	Teaching network							
	Public (n=85)		Private (n=32)				Total (n= 117)	
	n	%	n	%	X^2	p	n	%
Recess								
Number of recesses								
1	83	97.6	25	78.1	12.478	0.002[F]	108	92.3
2 or more	2	2.4	7	21.9			9	7.7
Recess duration								
10 15	49	57.6	8	25.0	9.918	0.001	57	48.7
16-30	36	42.4	24	75.0			60	51.3
Guided activities performed during recess								
No	65	76.5	11	34.4	18.098	<0.001	76	65.0
Yes	20	23.5	21	65.6			41	35.0
Materials for use during recess								
No	49	57.6	11	34.4	5.040	0.037	60	51.3
Yes	36	42.4	21	65.6			57	48.7
Budget for the purchase of these materials								
No	71	83.5	18	56.2	1.693	0.193	89	76.1
Yes	2	2.4	7	21.9			9	7.7
Do not know	12	14.1	7	21.9			19	16.2

PE = Physical Education. EFSF = elementary school of final grades. X^2 = Chi-square; F = Fisher's test.

Table 3. Characteristics of opportunities for the practice of PA during Extracurricular Activities in public and private schools. Curitiba (PR), 2014.

	Teaching network							
	Public (n=85)		Private (n=32)				Total (n= 117)	
	n	%	n	%	X^2	p	n	%
Extracurricular Activities								
Offering of PA in other contexts								
No	72	85.7	18	60.0	8.794	0.003	90	78.9
Yes	12	14.3	12	40.0			24	21.1
Offer of after school activities								
No	16	18.8	2	6.2	2.823	0.149[F]	18	15.4
Yes	69	81.2	30	93.8			99	84.6
Approach to the "Health Promotion" project								
No	12	14.1	2	6.2	1.366	0.345[F]	14	12.0
Yes	73	85.9	30	93.8			103	88.0
Participation in health-related programs at school								
No	36	42.4	22	68.8	6.480	0.011	58	49.6
Yes	49	57.6	10	31.2			59	50.4
Participation in the " community-in-school" program								
No	67	78.8	30	93.8	0.383	0.536	97	82.9
Yes	11	12.9	-	-			11	9.4
Do not know	7	8.2	2	6.2			9	7.7

PE = Physical Education. EFSF = elementary school of final grades. X2 = Chi-square; F = Fisher's test.

DISCUSSION

The present study described the characteristics of opportunities for the practice of PA in public and private schools in PE contexts, school recess and extracurricular activities. Disparities between public and private schools of Curitiba (PR) were observed within the contexts analyzed. While the private network presented a more favorable environment for the practice of PA, such as duration and number of recesses, activities and adequate PA materials and extracurricular offer of PA, the public network presented greater participation in health promotion programs at school.

Almost all schools offered at least two weekly PE classes. This result is consistent with other Brazilian studies that identified the same number of classes offered in elementary and high schools of the public and private network[8,9]. However, approximately one in five public high schools offered four weekly PE classes. This result can be explained by gaps in national and local legislation and policies. In fact, the Federal Law (PLS 249/12) determines a minimum of two weekly PE classes in schools, leaving at the discretion of each school's Political Educational Project (PPP) the inclusion of a greater number of PE classes in the curriculum[10]. As a result, some schools organize the curriculum in the semester regimen, so they concentrate annual PE workload in just one semester. Thus, the exposure of students to PE classes is not only low but also inconsistent, as demonstrated by the National School Health Survey[11], in which only half of students in

the ninth grade attended two weekly classes or more[11]. The low number of PE classes offered in schools has been widely described in national and international studies, especially in high schools[11,12]. A recent UNESCO report shows the decline in the offering of PE classes in all regions of the world, and emphasizes the need for increased PE classes[12].

Low exposure to PE classes may represent a reduction in opportunities for youth and adult development. In fact, school PE has been considered the most comprehensive system for learning skills, sel-confidence and understanding of lifelong participation in PA[1,12]. A national study identified that students who participated in at least two weekly PE classes were 27% more likely to meet PA recommendations[9]. In this sense, the great challenge is to increase the participation of students in PE classes. UNESCO suggests that PE should enable children and adolescents to become physically active, and this offer must be present from the earliest years of life and throughout the school day up to secondary education. Other actions are required: to ensure inclusive PE with gender equality and inclusion of people with disabilities, to build the PE vision involving curricular flexibility and community partnerships to put principles into practice[12].

The annual participation of PE teachers in improvement courses was observed in nine out of ten public schools and in only half of private schools. Improvement courses and trainings for teachers and school staff are considered important strategies in promoting PA in these environments[5]. In addition, in PE classes taught by trained teachers, children and adolescents spend more time in AFMV, when compared to classes taught by untrained professionals[13]. On the other hand, most teachers reported that acquisition of materials requested for PE classes is almost always or always carried out, which is inconsistent with the findings of UNESCO[12], suggesting that at least in the sample of the present study, this does not appear be a limiting aspect of PE classes. However, the broad structure for PE classes in the form of teacher training, curricula, PE equipment and materials was not characterized in the schools investigated. The fulfillment of these characteristics is a peculiarity inherent to the effective interventions in the engagement of students for the practice of PA[4,14].

School recess was identified in all schools analyzed, which is a positive aspect. In this sense, the recess time can be a great opportunity for practicing PA. Evidence indicates that the active behavior during school recess represents 44% of the total time spent practicing PA in the school period, and that students spend 1/3 of the total recess time in AFMV[15,16]. In addition, interventions based on access to PA structures and equipment at school during school recess demonstrate effectiveness for increasing PA levels[16]. However, among the schools analyzed, the frequency of two or more weekly recesses, the duration and availability of materials was higher among private schools than among public schools. Taken together, these findings suggest that students enrolled in private schools are exposed to a more favorable environment for recreational PA than those in public schools. While children and adolescents from higher income families and

those who are usually present in private schools may have more access to other PA opportunities (e.g., gyms and clubs), those in the public network may have the school as the only favorable space for PA[1]. This feature may contribute to the inequality in PA levels observed in population studies[17]. Such differences can be related to absences of minimum parameters in the legislation that guarantee greater access to school recess. For example, the opinion of the Basic Education Chamber (CEB) No. 02/2003 establishes only the maximum limit (1/6 of school activities) and not the minimum and the frequency or duration of school recess[18,19].

The offer of PA in other school contexts was identified in a small portion, being higher in the private network (37.5%), compared to the public network (14.3%). This finding is worrying, since interventions before and after schools are considered to be an important part of PA promotion programs in school[18]. In fact, extracurricular activities can represent the daily PA time recommended for children and adolescents[20-22]. This finding also points out to the lower opportunity for participation in PA in other contexts among public school students. However, participation in health-related programs at school was higher in the public network (57.6%) than in the private network. This result can be attributed, in part, to programs implemented by the federal[23] and state governments aiming to extend the school day and the curricular organization, from the perspective of full education[24,25], focused on public schools. On the other hand, there is no evidence to support the effectiveness of these programs in the promotion of PA in public schools, which highlights the need to evaluate them.

Finally, some factors need to be taken into account when interpreting the results of the present study. The information was obtained through reports from PE teachers. They may be unaware of some information, especially regarding school recess and extracurricular activities, as well as underestimating or overestimating activities and/or promotion actions of developed PA. In addition, the sample is not representative of all PE teachers of Curitiba/PR. It is noteworthy that it is not possible from this study to identify the level of participation of schoolchildren in PA offered by schools. The information collected is limited to public and private schools of the city of Curitiba/PR. Therefore, further studies should be carried out in other Brazilian regions, allowing the comparison of results. It is emphasized the need of studies with representative samples of Brazilian schoolchildren, so that the scenario of PA promotion in schools can be known.

It is concluded that the opportunities for practicing PA in the schools of Curitiba, Brazil are similar between public or private schools regarding the amount and duration of PE classes, but differ in terms of school recess and extracurricular activities, these being more frequent in private schools. In addition to the opportunities for PA in the analyzed contexts, it was observed that the time allocated to school PE is low, and there is no standardization regarding the characteristics of time, resources and recess activities. Also, it was not possible to identify the percentage of extracurricular activities aimed at the practice of PA. Thus, the opportunities for

the practice of PA in school need advancement, especially in relation to the amount of PE classes, materials and activities available during school recess and the offer of extracurricular activities.

REFERENCES

1. Sallis JF, McKenzie TL, Beets MW, Beighle A, Erwin H, Lee S. Physical education's role in public health: steps forward and backward over 20 years and HOPE for the Future. Res Q Exerc Sport 2012;83(2):125-35.
2. Lounsbery M, McKenzie TL, Morrow JR, Jr., Fau MS, Holt KA. District and school physical education policies: implications for physical education and recess time. Ann Behav Med 2013; (1):131-41 .
3. Knuth AG, Hallal PC. School environment and physical activity in children and adolescents: systematic review. Rev Bras Ativ Fís Saúde 2012;17(6):463-73.
4. Brasil. Ministério da Saúde: Avaliação de Efetividade de Programas de Atividade Física no Brasil. Brasília/DF. 2011.
5. Robertson-Wilson JE, Dargavel MD, Bryden PJ, Giles-Corti B. Physical activity policies and legislation in schools: a systematic review. Am J Prev Med 2012;43(6):643-9.
6. Hoehner CM, Soares J, Parra PD, Ribeiro IC, Joshu CE, Pratt M, et al. Physical activity interventions in Latin America: a systematic review. Am J Prev Med 2008;34(3):224-33.
7. Alberico CO, Schipperijn J, Reis RS. Use of global positioning system for physical activity research in youth: ESPAÇOS Adolescentes, Brazil. Prev Med in press 2017, 103: 59-65
8. Fortes MO, Azevedo MR, Kremer MM, Hallal PC. A educação física escolar na cidade de Pelotas-RS: contexto das aulas e conteúdos. Rev Educ Fís/UEM 2012;23(1):69-78.
9. Tassitano RM, Barros MV, Tenorio MC, Bezerra J, Florindo AA, Reis RS. Enrollment in physical education is associated with health-related behavior among high school students. J Sch Health 2010;80(3):126-33.
10. Brasil. Projeto de Lei do Senado número 249, de 2012. 2012.
11. Instituto Brasileiro de Geografia e Estatística. Pesquisa Nacional de Saúde do Escolar. 2016.
12. UNESCO. Diretrizes em educação física de qualidade (EFQ) para gestores de políticas. Brasília. 2015.
13. Lonsdale C, Rosenkranz RR, Peralta LR, Bennie A, Fahey P, Lubans DR. A systematic review and meta-analysis of interventions designed to increase moderate-to-vigorous physical activity in school physical education lessons. Prev Med 2013;56(2):152-61.
14. Dobbins M, De Corby K, Robeson P, Husson H, Tirilis D. School-based physical activity programs for promoting physical activity and fitness in children and adolescents aged 6-18. Cochrane Database Syst Rev 2009; 21(1):Cd007651.
15. Ickes MJ, Erwin H, Beighle A. Systematic Review of Recess Interventions to Increase Physical Activity. J Phys Act Health 2013;10(6):910-26.
16. Escalante Y, Garcia-Hermoso A, Backx K, Saavedra JM. Playground designs to increase physical activity levels during school recess: a systematic review. Health Educ Behav 2014;41(2):138-44.
17. Hallal PC, Knuth AG, Cruz DK, Mendes MI, Malta DC. Physical activity practice among Brazilian adolescents. Ciênc Saúde Coletiva 2010;15 (supl.2):3035-42.
18. Brasil. Parecer n. CEB 02/2003, de 19 de fevereiro de 2003. Câmara de Educação Básica / Conselho Nacional de Educação. Brasília: Ministério da Educação. 2003.
19. Centers for Disease Control and Prevention. School Health Guidelines to Promote Healthy Eating and Physical Activity. MMWR Recomm Rep 2011;60(RR-5):1-76.

20. Mears R, Jago R. Effectiveness of after-school interventions at increasing moderate-to-vigorous physical activity levels in 5- to 18-year olds: a systematic review and meta-analysis. Br J Sports Med in press.
21. Grydeland M, Bergh IH, Bjelland M, Lien N, Andersen LF, Ommundsen Y, et al. Intervention effects on physical activity: the HEIA study - a cluster randomized controlled trial. Int J Behav Nutr Phys Act 2013;10(17).
22. Barros MV, Nahas MV, Hallal PC, Farias Junior JC, Florindo AA, Barros SS. Effectiveness of a school-based intervention on physical activity for high school students in Brazil: the Saude na Boa project. J Phys Act Health 2009;6(2):163-9.
23. Brasil. Cadernos de Atenção Básica: Saúde na Escola. Brasília: Ministério da Saúde. 2009;1(24).
24. Brasil. Ministério da Educação. Programa Mais Educação (Decreto 7.083/10). 2010.
25. Brasil. Ministério da Educação. Programa Viva a Escola (Resolução n. 3683/2008).

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