



REVISTA PAULISTA DE PEDIATRIA

www.rpped.com.br



ORIGINAL ARTICLE

Prevalence of sedentary behavior and its correlates among primary and secondary school students



Rodrigo Wiltgen Ferreira^{a,*}, Airton José Rombaldi^a,
Luiza Isnardi Cardoso Ricardo^b, Pedro Curi Hallal^{a,b}, Mario Renato Azevedo^a

^a Physical Education Post Graduation Program, Universidade Federal de Pelotas (Ufpel), Pelotas, RS, Brazil

^b Epidemiology Post Graduation Program, Universidade Federal de Pelotas (Ufpel), Pelotas, RS, Brazil

Received 11 February 2015; accepted 4 June 2015

Available online 9 October 2015

KEYWORDS

Sedentary lifestyle;
Adolescent behavior;
Adolescents;
Television;
Internet

Abstract

Objective: To determine the students' exposure to four different sedentary behavior (SB) indicators and their associations with gender, grade, age, economic status and physical activity level.

Methods: A cross-sectional study was conducted in 2013. The SB was collected using the HELENA instrument, composed by screen time questions (TV, video games and internet) and sitting activities on school opposite shift. The cut point of ≥ 2 h/day was used to categorize the outcome. The Poisson regression was used for associations between the outcome and the independent variables (95% significance level), controlling for confounding variables and the possible design effect.

Results: The sample was composed by 8661 students. The overall prevalence of SB was 69.2% (CI95% 68.1–70.2) on weekdays, and 79.6% (CI95% 78.7–80.5) on weekends. Females were more associated with the outcome, except to electronic games. Advanced grades students were more involved in sitting tasks when compared to the early grades. Older students were more likely to surf on net for ≥ 2 h/day. Higher economic level students were more likely to engage in video games and internet. Active individuals were less likely to engage in SB on weekdays.

Conclusions: The prevalence of SB was high, mainly on weekends. The associations with sex, age, grade and physical activity level should be considered into elaboration of more efficient interventions on SB control.

© 2015 Sociedade de Pediatria de São Paulo. Published by Elsevier Editora Ltda. This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/>).

* Corresponding author.

E-mail: wiltgenrodrigo@gmail.com (R.W. Ferreira).

PALAVRAS-CHAVE

Estilo de vida sedentário;
Comportamento do adolescente;
Adolescentes;
Televisão;
Internet

Prevalência de comportamento sedentário de escolares e fatores associados**Resumo**

Objetivo: Determinar a exposição de escolares a quatro indicadores diferentes de comportamento sedentário (CS) e suas associações com gênero, série escolar, idade, condição econômica e nível de atividade física.

Métodos: Um estudo transversal foi realizado em 2013. Os CS foram obtidos utilizando o instrumento HELENA, composto por perguntas sobre tempo de tela (TV, videogames e internet) e atividades na posição sentada na escola em relação ao turno. O ponto de corte de ≥ 2 horas/dia foi usado para categorizar o desfecho. A regressão de Poisson foi utilizada para avaliar associações entre o desfecho e as variáveis independentes (nível de significância de 95%), controlando as variáveis de confusão e o possível efeito do desenho.

Resultados: A amostra foi composta por 8661 alunos. A prevalência geral de CS foi de 69,2% (IC95%: 68,1–70,2) em dias de semana, e 79,6% (IC95%: 78,7–80,5) nos fins de semana. O sexo feminino mostrou maior associação com o desfecho, exceto para jogos eletrônicos. Estudantes de séries mais avançadas estavam mais envolvidos em tarefas na posição sentada, quando comparados com as séries iniciais. Os alunos mais velhos eram mais propensos a navegar na internet por mais de duas horas por dia. Estudantes com condição econômica mais elevada eram mais propensos a passar o tempo em videogames e internet. Indivíduos ativos eram menos propensos a se envolver em CS durante a semana.

Conclusões: A prevalência da CS foi elevada, principalmente nos fins de semana. As associações com sexo, idade, série escolar e nível de atividade física devem ser consideradas para elaborar intervenções mais eficientes no controle dos CS.

© 2015 Sociedade de Pediatria de São Paulo. Publicado por Elsevier Editora Ltda. Este é um artigo Open Access sob a licença CC BY (<https://creativecommons.org/licenses/by/4.0/deed.pt>).

Introduction

Since the end of World War II, there was an intensification in the communication process, particularly stimulated by television watching. There are several benefits of intensifying the communication process, but in recent decades studies have shown that excessive sedentary time can lead to poor health, particularly among the new generations that grow in an era of massive technology use.¹ Sedentary behavior (SB) is being conceptualized in the literature as any activity with an energy cost equal to or less than 1.5 METs,¹ held in reclining or sitting posture.²

Childhood and adolescence are particularly relevant for the study of SB because the period is characterized by marked physical and mental changes.³ In this sense, there is evidence that SB plays directly impacts on many health outcomes, such as obesity, metabolic syndrome and cardiovascular diseases,^{4–6} also been described as related to reductions in life expectancy.⁷ Due to its effects on health, recommendations on SB were released in 2001, with an update on 2011.⁸

A recent review study identified 24 Brazilian studies about SB, most of which focusing on digital media or screen time (television, games and computer).⁹ However,

differences in measurement tools (questionnaire structure), as well as analytical approaches (SB thresholds, regression types, and possible confounder control) make it difficult to compare data from different studies. In addition, it is necessary to analyze the possible associations with social, demographic and behavioral variables in order to conduct effective interventions on controlling SB.

The aim of the present study was to evaluate exposure to four different indicators of SB among adolescents of Pelotas, Brazil, and its associations with gender, grade, age, economic level and physical activity.

Method

This cross sectional study was part of the third follow-up data collection of an intervention called “Physical Education +: Practicing health at school”. This study was conducted in 56 public schools of the city of Pelotas, Brazil in 2012 and 2013. The main objective of the intervention was to disseminate information related to physical activity and general health through physical education classes. Data presented in this article are a snapshot of exposure to SB.

A multistage sampling process was used, divided on two steps, referring to each intervention year. Each year it was conducted a raffle among all the city eligible schools to guarantee the representativeness of the sample. More information about the sampling process is available on the Spohr et al.¹⁰ paper. The first step was conducted on 2012. A list of the primary and secondary public schools of the city was obtained. We then stratified school according to type (state vs. city) and city area (urban vs rural). A

¹ Unit of physical activity intensity referred to basal metabolism. One MET is equivalent to 3.5 ml/kg/min. or 1 kcal/kg/h. For example, vigorous walking requires four times more energy than basal metabolism, therefore, 4 METs. The fact of being in a standing position requires two times more energy than basal metabolism (2 METs), thus, the individual is not considered on SB.

Download English Version:

<https://daneshyari.com/en/article/4176174>

Download Persian Version:

<https://daneshyari.com/article/4176174>

[Daneshyari.com](https://daneshyari.com)