Physical activity habits in children: Do sports management institutions need to increase efforts?

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1. INTRODUCTION

According to the World Health Organization (WHO), acting (in the sense of creating healthy lifestyle habits) at an early age while still in early childhood proves essential, as this is a period of rapid physical and cognitive development and a period during which the child's habits are formed and family lifestyle habits are open to change and adaptation (WHO, 2019). Within these habits, physical activity time (PA), sedentary behaviour time (SB) and sleep time (ST) stand out. For children aged 3 to 4 years the recommendations for PA are 180 minutes of varied physical activity of any intensity, of which at least 60 minutes of a moderate to vigorous intensity activity, distributed throughout the day (WHO, 2019). Children aged 5 years should perform an average of 60 minutes per day of moderate to vigorous intensity PA. SB time should not extend for more than 1 hour at a time and sitting for prolonged periods of time should be avoided (WHO, 2019). Children aged 3 and 4 should get 10-13 hours of good quality sleep, which may include a nap, with regular sleeping and waking hours (WHO, 2019). In turn, 5-year-olds should get 9 to 11 hours of uninterrupted sleep (Canadian Society for Exercise Physiology, 2022). When disrespected, all these habits mentioned above, potentiate the risk of mortality from non-communicable diseases, which are responsible for 71% of all deaths worldwide each year (WHO, 2018), and will result in increasingly less sustainable socioeconomic costs, making the prevention and control of these pathologies a crucial need (Mikkelsen et al., 2019). Alongside this, it is considered that sports management facilities can play an important role in the of practice by promoting and creating a diverse offer. Based on the above, the aim of this study is to analyse the PA habits, sedentary behaviours and sleep habits of children aged 3-5 years according to the recommendations, in order to try to understand whether greater efforts need to be made by sports management institutions to enhance the practice.

2. METODOLOGY

Quantitative cross-sectional study, with a sample of 49 children from 3 to 5 years old (3 years: n=26; 4 years: n=8; 5 years: n=15). The National Food and Physical Activity Survey was used for data collection. For the SB and ST analysis, the Canadian 24-Hour Movement Guidelines for 0-4 years were used. SPSS 28.0 software was used for data processing.

3. RESULTS

The descriptive analysis indicated that 26 of the 49 children were 3 years old (53.1%), 8 were 4 years old (16.3%) and 15 were 5 years old (30.6%). As for BMI, 69.4% of the children (n = 34) were normal weight, 20.24% (n = 10) overweight and 10.2% (n = 5) obese. Regarding the academic qualifications of the children's parents, it was found that both mothers and fathers had secondary education, with 40.8% (n = 20) and 51% (n = 25) respectively. Considering PA habits, 61.2% (n = 30) of mothers and 42.9% (n = 21) of fathers had no PA habit. The results revealed that 17 children (34.7%) practiced programmed PA (except physical education classes) and that of these, four practiced more than one activity per week. The results indicate that no age group can meet the recommendations

Regarding SB, results showed that the time spent in this behaviour during the week and weekend increases as the child gets older. Children aged 3 years old spend on average around 65.77 minutes of the day in SB, those aged 4-years-olds around 91.88 minutes and those aged 5 years old around 92 minutes. At the weekend, 3-year-olds spend an average of 95.19 minutes, 4-year-olds 140.63 minutes and 5-year-olds 180 minutes. The relationship between the average weekly time (working days + weekend) of SB, in front of the television and playing on the computer or console, with the recommended health guidelines, is represented in table 1.

Table 1. Relationship between SB and guidelines.

Child´s age	**N**	**Average SB (min/day)**	**SD**	***Guidelines (min/day)***	**Status**
3	26	80,48	48,95	<60	Above
4	8	116,25	56,41	<60	Above
5	15	136,00	67,07	<60	Above

Considering ST, the results showed that during the week (working days) the 3-year-olds children sleep on average about 9.87 hours, the 4-year-old about 9.17 hours and the 5-year-olds about 9.27 hours. At the weekend, 3-year-olds sleep an average of 10.56 hours, 4-year-olds 9.75 hours and 5-year-old 9.67 hours.

4. CONCLUSIONS

The aim of this study was to analyse the PA habits, SB and sleeping habits of children aged 3-5 years old according to the recommendations, to try to understand

whether greater efforts need to be made by sports management institutions to enhance the practice. Although most children had a normal weight, the results of this study revealed that most children not only did not meet the recommendations for PA practice, but also the recommendations regarding sleeping hours and spent too much time in PA. In this sense, we believe that more efforts will be needed by sports management institutions, highlighting their importance as spaces that encourage the practice of physical activity in children. It is suggested that these institutions promote "family-friendly spaces" where, at the same time, children and their families can practice physical activity. This paper highlights the need to further promote the practice of PA and its importance, as well as the need to introduce more PA programs in sports facilities, contributing not only to the health of children, but also to the economy of sports organizations.

5. REFERENCES

Canadian Society for Exercise Physiology. (2022). *24-Hour Movement Guidelines for the Children and Youth (5-17 years)*. https://csepguidelines.ca/guidelines/children-youth/

Mikkelsen, B., Williams, J., Rakovac, I., Wickramasinghe, K., Hennis, A., Shin, H.-R., Farmer, M., Weber, M., Berdzuli, N., Borges, C., Huber, M. & Breda, J. (2019). Life course approach to prevention and control of non-communicable diseases. *BMJ*, *364*, l257. https://doi.org/10.1136/bmj.l257

WHO. (2019). *Diretrizes da atividade física, comportamento sedentário e sono para crianças com menos de 5 anos de idade*. https://apps.who.int/iris/bitstream/handle/10665/311664/9786500208764-por.pdf?sequence=61&isAllowed=y

WHO. (2018). *Noncommunicable Diseases - Country Profiles 2018*. https://apps.who.int/iris/handle/10665/274512