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CHILDREN'S BLOOD PRESSURE AND PHYSICAL ACTIVITY

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Primary prevention of cardiovascular diseases and promotion of active lifestyle should start early. Blood pressure (BP) in childhood correlates with BP in adulthood. The knowledge about children's physical activity influence on BP is limited.

Aims: To analyse the relation between physical activity (PhyA) and time of "screen-activities" (ST) performed by children and BP.

Methods: 428 children were enrolled, provided parent's consent. Measurements: BP: systolic (syst) and diastolic (diast) Z-score, pulse pressure (PP), mean pressure (PM). Activity information was obtained from:

1) a seven-day questionnaire,

2) the K13Plus PhyA and sedentary behaviour scale (K13 PhyS).

Based on Z-score BP values participants were classified in: High-BP (HBP) ≥ 1.03 (n: syst=46, diast=100), Normal-BP (NBP) < 1.03 (n: syst=382, diast=328).

Results:

- Mean $\pm$ DS Age 7.9 $\pm$ 2.4 years. K13 PhyS 5.6 $\pm$ 1.8 points. Screen-time 65.3 $\pm$ 43.4 minutes/day.

PhysA intensity (minutes/day): low 35.5 $\pm$ 32.2, moderate 49.9 $\pm$ 43.6, vigorous 29.2 $\pm$ 21.6, moderate+vigorous 78.7 $\pm$ 49.2

- Correlation's analysis (significant results, (*almost) Pearson C.) : *Moderate+vigorous PhyA*: ZScoreBP_{syst} (-0,163), ZScoreBP_{dias} (-0,116), PP (-0,102*), PM (-0,16).

Moderate PhyA: ZScoreBP_{syst} (-0,102*), PP (-0,115), PM (-0,135).

Vigorous PhyA: ZScoreBP_{syst} (-0,16)

K13 PhyS: ZScoreBP_{syst} (-0,107)

Screen-time: PP (0,12)

- Comparison of means showed: less mean time/day of moderate, and moderate+vigorous PhyA in HBP_{syst} (HBP 38.3 $\pm$ 28,7; 63.7 $\pm$ 39,4. NBP 50,8 $\pm$ 49,1; 82,7 $\pm$ 80,0).

Conclusions:

- Children studied just reach current PhyA and "screen-time" recommendations.

- PhyA have an effect on children's BP values.

- Mean time/day of moderate+vigorous PhyA seems to be the best preventive factor; inversely "screen-time"/day.

- PhyA and BP at childhood relationship must be considered as protective cardiovascular risk factors.

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EVALUATION OF ORAL HYGIENE HABITS IN A PORTUGUESE PRIMARY SCHOOL CHILDREN POPULATION

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Background and aims: Good oral hygiene habits should be implemented very soon in children's development. It is important to quantify the improvements and the dental plaque index can be an easy mean to do it.

Methods: Prospective study, with the application of an anonymous questionnaire to the parents of 194 primary school children of Viana do Castelo, Portugal. During the study period we taught the children how to brush their teeth and we made an evaluation of their dental plaque prior and after it.

Results: The children's age was comprised between 5-9 years and 52% were females. Only 20% of the parents started to brush their children's teeth before 1 year. Ninety-eight percent brush their teeth