PREDICTORS OF ASTHMA CONTROL IN PAEDIATRICS

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BACKGROUND

Asthma is the most frequent chronic disease in pediatrics with a rising incidence and prevalence in the last 30 years¹⁻³

Physical activity (PA) is highly recommended in asthmatic patients in whom obesity and sedentary behaviour may contribute to worse disease control⁴⁻⁷

PA may reduce asthma symptoms by:

- increasing exercise tolerance and capacity
- inducing anti-inflammatory effects⁸

AIMS and METHODS

To describe predictors of asthma severity and control in children and adolescents with asthma

- Cross-sectional study
- 3 months
- Asthma + follow-up Paediatric medical appointments
- Self-reported questionnaire: asthma control, socio-demographic information, physical activity patterns, and sedentary behaviour

Descriptive Statistics

RESULTS

Inferential Statistics

Number of participants = 114

Table 1 – Baseline characteristics of participants

	frequency (%)
Gender – boys	82 (71.9)
BMI	
Normal	53 (46.5)
Low	5 (4.4)
Excess	20 (17.5)
Obesity	36 (31.6)
Triggers	
Dust mites / Polen	71 (62.3)
Sedentarism (screen time)	
>2 hours/day	41 (36)
1 hour/day	34 (29.8)
Asthma control [§]	
well controlled	58 (50.9)
uncontrolled	13 (11.4)
Age – Median (IQR)	12.5 (10-15)

Table 2 – Comparison of participants according to asthma control

	well controlled	uncontrolled	p-value
Participants			
PA frequency			
4-5x/week	66.7%	12.1%	0.003*
PA duration			
60 min/day	56%	18.8%	0.015*
Normal BMI	56%	12.5%	0.034*
Inhaled corticosteroids	58%	7%	0.041*
Parents			
Non-smoking	82.8%	0	<0.001*
PA	53.4%	5.2%	0.031*

*Fisher's exact test

Higher parents' school level was associated with better asthma control
No association found between sedentary behaviour and asthma control

CONCLUSIONS

The study provided indications that socio-demographic factors must be taken into account when prescribing physical activity in asthmatic patients

The findings are in accordance with previous reports that low PA may be associated with higher risk of uncontrolled asthma

Limitations: small sample size, non-parametric tests, parental assistance with the questionnaire, Berkson's bias, healthcare access bias, recall bias

An adequate asthma control strategy should weight the complexity of the family dynamics and involve all the stakeholders in order to improve disease outcomes

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DISCLOSURES

In relation to this presentation, I declare that there are no conflicts of interest