Adherence to pharmacotherapy improves school performance in children with rhinitis and asthma

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Background: Adherence to pharmacotherapy reduces clinical symptoms of asthma and rhinitis, however, little is known of its impact on school performance in children.

Objective: To evaluate the impact of pharmacotherapy on the control of rhinitis symptoms in a school population.

Methods: A cross-sectional study, carried out in eight schools of two cities. All participants were given a questionnaire assessing parameters related to the severity of rhinitis and asthma, pharmacotherapy, adherence, school absenteeism and the scores obtained during the last academic year.

Results: 1109 students agreed to participate. We divided the students into two groups: symptomatic group (36 %) and asymptomatic group (63 %). The symptomatic group had a higher frequency of school absenteeism (1 vs. 3.1 days/year/patient, p < 0.01) and lower academic performance (failed, 20 vs. 33 %, p < 0.01) than the asymptomatic group. After dividing the symptomatic group between adherents and non-adherents to the pharmacological treatment, the group of adherents had a similar school performance than the asymptomatic group.

Conclusions: Asthma and rhinitis are associated with poor school performance in children and with an increase in school absenteeism, but adherence to pharmacotherapy can improve clinical control and reduce the negative impact on the school level.

Keywords: Asthma; Rhinitis; Adherence to pharmacotherapy; School performance