

# Effects of educational interventions for self management of asthma in children and adolescents: systematic review and meta-analysis

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**OBJECTIVE:** To determine the effectiveness of educational programmes for the self management of asthma in children and adolescents.

**DATA SOURCES:** Databases of the Cochrane Airways Group, PsychINFO, reference lists of review papers, and eligible studies.

**REVIEW METHODS:** Eligible studies were published randomised controlled trials or controlled clinical trials of educational programmes for the self management of asthma in children and adolescents that reported lung function, morbidity, self perception of asthma control, or utilisation of healthcare services. Eligible studies were abstracted, assessed for methodological quality, and pooled with fixed effects and random effects models.

**RESULTS:** 32 of 45 identified trials were eligible, totalling 3706 patients aged 2 to 18 years. Education in asthma was associated with improved lung function (standardised mean difference 0.50, 95% confidence interval 0.25 to 0.75) and self efficacy (0.36, 0.15 to 0.57) and reduced absenteeism from school (-0.14, -0.23 to -0.04), number of days of restricted activity (-0.29, -0.33 to -0.09), and number of visits to an emergency department (-0.21, -0.33 to -0.09). When pooled by the fixed effects model but not by the random effects model, education was also associated with a reduced number of nights disturbed by asthma. The effect on morbidity was greatest among programmes with strategies based on peak flow, interventions targeted at the individual, and participants with severe asthma.

**CONCLUSIONS:** Educational programmes for the self management of asthma in children and adolescents improve lung function and feelings of self control, reduce absenteeism from school, number of days with restricted activity, number of visits to an emergency department, and possibly number of disturbed nights. Educational programmes should be considered a part of the routine care of young people with asthma.

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