Self-efficacy, asthma control and quality of life in adolescents with asthma taking part in an intervention study

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Introduction

Many adolescents with asthma have poor disease control despite the availability of effective therapies. Research has identified that self-efficacy is an important component of chronic disease self-management and may also be important for quality of life [1]. Adult studies have shown that higher self-efficacy is associated with improved asthma control and better quality of life [2]. We aimed to investigate the relationship between asthma control, self-efficacy, and quality of life adolescents with asthma.

Method

We recruited adolescents aged 12-18 years to take part in a randomised controlled trial of a new adolescent intervention aimed at improving asthma self-management. A prescription of at least one preventer medication and an Asthma Control Test (ACT) score of <21 was a criteria for being included in the study. Self-efficacy to manage asthma was measured using a newly developed instrument – the Adolescent Asthma Self Efficacy Questionnaire [3] quality of life was measured using the Pediatric Asthma Quality of Life Questionnaire [⁴]. Questionnaires were completed during the baseline visit in clinic.

Results

A total of 71 participants were recruited (AASEQ=54; PAQoL= 28). We conducted a series of partial correlation co-efficients adjusting for gender as there were significant differences between boys and girls on the ACT and a number of sub-scales. As shown in Table 1, asthma control was not significantly associated with total self-efficacy, although it was in the expected direction (r = .24, p = .07). Better asthma control was associated with the beliefs subscale of the AASEQ. Better self-efficacy and improved asthma control were both significantly associated with improved quality of life.

Table 1 Partial correlations between asthma control, self-efficacy, and quality of life

<table>
<thead>
<tr>
<th>Asthma Control</th>
<th>QoL Symptoms</th>
<th>QoL Activity</th>
<th>QoL Emotion</th>
<th>QoL Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>.450*</td>
<td>.375*</td>
<td>.494*</td>
<td>.480*</td>
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Conclusion: Our results suggest that the SEQ and PAQoL measure different constructs and that there is a complex relationship between self-efficacy, quality of life and asthma control. Better self-efficacy may be associated with having better asthma control and quality of life. Alternatively, having better asthma control may underlie better self-efficacy and better quality of life. Future longitudinal studies should assess the direction of causality between these three constructs to identify the ideal target for interventions to improve the life experience of adolescents with asthma.

References: