Abstract title: Response profiles to a Motivational Communication-based inhaled corticosteroid adherence intervention in adults with asthma

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Background: Daily adherence to inhaled corticosteroids (ICS) is critical for achieving optimal asthma control, yet adherence is generally low. Using one additional canister per year is clinically significant, relating to a 21% decrease in asthma-related mortality.

Objective: To determine the characteristics of patients who achieved the target increase in adherence level (succeeded) following a brief Motivational Communication-based intervention.

Methods: The sample was 14 poorly controlled (Mean ACQ \geq 0.8), non-adherent (%ICS \leq 50) adults with asthma (M(SD)age= 51.4 (4.9) yrs, 50% women). Nonparametric tests were used to determine the response profile of those who attained, vs. didn't, the targeted increase in adherence at 1 year.

Results: Less than half the sample (43%) reached the target. On average, this group had higher BMIs and had asthma for a longer period of time (M(SD)BMI= 29.1 (3.9) vs 27.1 (5.6); M(SD) duration=27.2 (25.6) yrs vs 13.5 (9.2)), 100% (vs. 25%) reported being non-smokers and 80% (vs. 43%) had a partner. Those who succeeded also reported more physical illnesses other than asthma (100% vs 50%) and mental health issues (67% vs 38%). Those who succeeded had higher mean baseline scores of perceived competence (SMD PCS=0.6), autonomy-support (SMD HCCQ= 1.1), worse initial asthma control (SMD ACQ=0.7) and lower quality of life (SMD AQLQ=-0.6).

Conclusion: Findings suggest that having higher levels of self-efficacy, perceived autonomysupport, social support and a healthy lifestyle but more health issues may be linked to increased ICS adherence in response to motivational counselling. This may be due to the benefits of changing being more obvious and being better equipped to face the challenge.

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