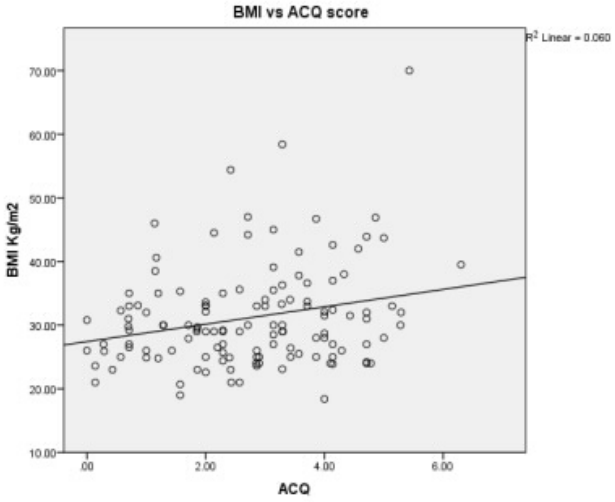
questionnaire (ACQ) scores of patients attending a specialist asthma clinic, as compared to objective parameters used for assessing disease severity.

Methods Measurements of IgE, Blood Eosinophils, FEV1%, FVC%, FEV1/FVC ratio, BMI and ACQ were recorded for patients attending an asthma clinic. BTS management step was also looked at.

Results 110 Pts mean (SD) age 52 (17), BMI 31 (8), ACQ 2.7 (1.4), Step BTS 3.5, FEV1% 71 (22.6) FEV1/FVC 69 (15.2) were investigated. There was a strong correlation between ACQ and BMI (r=0.244, p<0.05) and BTS step (r=0.411, p=<0.05) but not IgE or FEV1/FVC rato. There was a weak correlation between ACQ and Blood Eosinophils (r=–0.184, p=<0.05). There were significantly worse ACQ scores in those with BMI>=30 Kg/m^2 (p<0.05) and %FVC (p<0.05) but no significant differences in FEV1%, IgE, Blood Eosinophils or FEV1/FVC.

Conclusion Obesity appears to have asignificant influence on ACQ scores as a measure of asthma control and needs tobe taken into account when using this measure as an indication of severity, andformulating management plans with regards to patient care.

1. Scott S, Currie J, Albert P, Calverley P, Wilding JP. Risk of misdiagnosis, health-related quality of life, and BMI in patients who are overweight withdoctor-diagnosed asthma. *Chest*. 2012Mar; 141(3):616–24



Abstract P272 Figure 1

P273 ASTHMA: IS IT AS PREDICTABLE AS THE SEASONS?

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Background Current literature shows a distinct peak in asthma exacerbations in September among children, attributing it in part to their return to school and the spread of viral agents accompanying this. There is comparatively little recent research into the trends in adults, however. This study examines seasonal variations in asthma exacerbations in a population of adults with asthma from the community.

Methods The study population was identified from The Health Improvement Network database of anonymised GP records. Patients were between 16–40 years and had a prescription for asthma treatment during a qualification window of 1998–2000. Current analyses are restricted to patients with at least 5 years of data available pre-qualification. In this instance we defined exacerbations as acute oral prednisolone prescriptions. The daily total number of exacerbations was calculated from 01-01-1999 to 31-12-2003. To explore the potential relationship between exacerbations and co-morbidities, we also explored antibiotic and antiviral prescriptions as well as treatments for seasonal allergic rhinitis in this cohort.

Results 38,439 patients with current asthma were identified. Prednisolone exacerbations decreased from the beginning of the year until summer, at which point there was a peak in June (Figure: solid line). They then increased in autumn peaking at the end of October, then increasing throughout winter. During the summer there was a similar peak observed in both prednisolone exacerbations and seasonal allergic rhinitis prescriptions in this cohort. From September through to May the trends observed in prednisolone exacerbations were similar to those seen in antiviral and antibiotic prescriptions.

Conclusions Within the seasonal trends observed, there appears to be some correlation between the summer peak in exacerbations and seasonal allergic rhinitis prescriptions. There are also similarities seen in exacerbations during the beginning and end of the year and antibiotic and antiviral prescriptions. These findings suggest that infections and seasonal allergic rhinitis might be drivers for asthma exacerbations in adults.

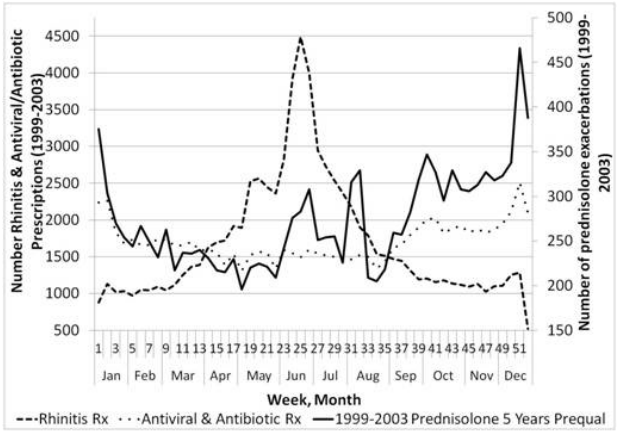

Figure: Daily total number of prednisolone exacerbations, allergic rhinitis prescriptions and antibiotic/antiviral prescriptions between 1999 and 2003

Abstract P273 Figure 1

P274 DESIGNING A BEHAVIOURAL-EDUCATIONAL INTERVENTION USING INTERVENTION MAPPING TO REDUCE THE HIGH RATES OF PAEDIATRIC ASTHMA HOSPITAL ADMISSIONS IN AN INNER-CITY AREA OF BIRMINGHAM

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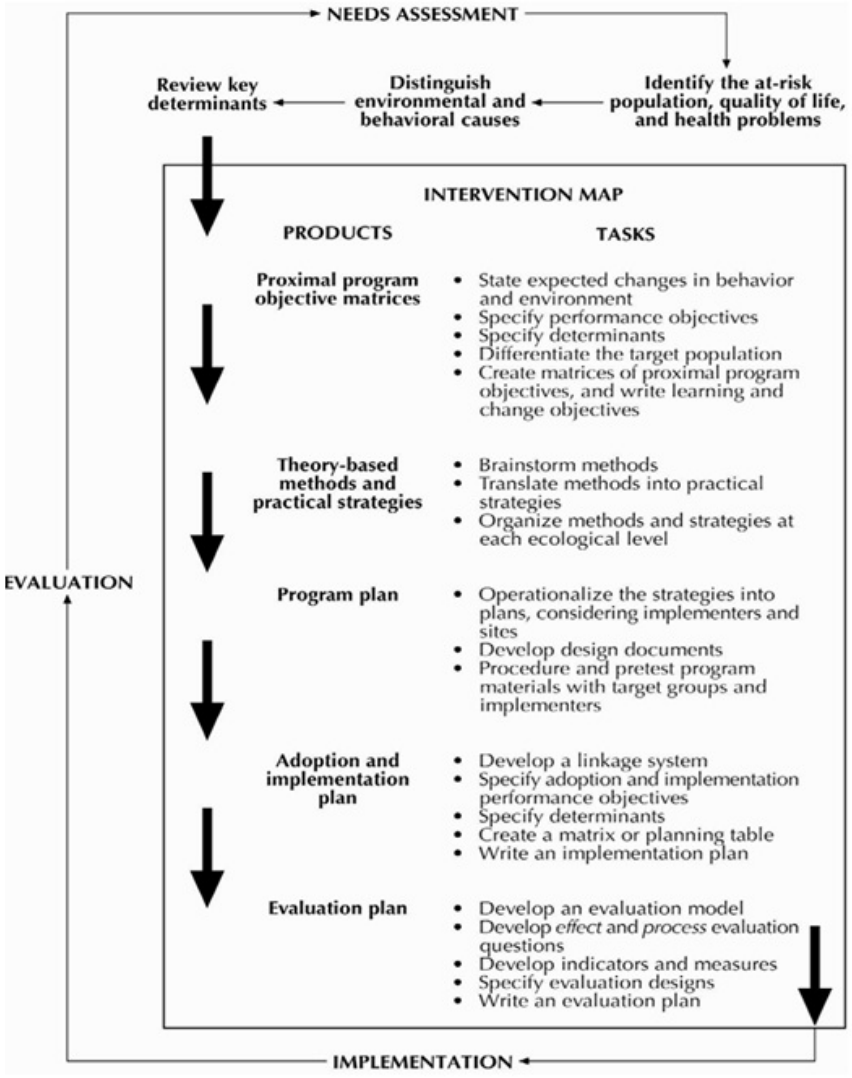
Background Interventions based on empirically supported theory are effective in eliciting behaviour change (BC) (Michie & Prestwich, 2010). We used intervention mapping to design a BC intervention to promote effective asthma management.

Method An evidence review on BC interventions for asthma was conducted; quantitative admissions data was collated; and qualitative research was used to explore family and patient experiences. These were used in the six processes of intervention mapping: needs assessment, proximal programme objective matrices, theory-based



Abstract P274 Figure 1

methods and practical strategies, intervention design, adoption and implementation, and evaluation.

Findings The six stages demonstrated that self-management behaviours are a critical component of asthma care and that childhood asthma care may be influenced through behaviour and environment. The process showed how intervention methods based on self-regulatory theory (Leventhal et al., 1984) are applicable to self-management behaviours and can be translated into practical applications for asthma self-management.

Figure 1. Intervention mapping process diagram (Bartholomew et al., 2001)

Step one involved conducting a literature review, collecting preliminary data and developing the asthma PRECEDE model. Step 2 highlighted the at-risk group and explores relevant theories/frameworks e.g. Asthma self-management behavioural framework (Bartholomew et al., 2001). Performance objectives and determinants were established in order to devise a change objective matrix. Step 3 linked BC techniques to determinants and change objectives in order to change behaviour. Step 4 was the intervention design targeting asthma self-management. Key features were child centred teaching including a video and facilitating family/GP links. Step 5 encompassed the logistics of the intervention i.e. mode of delivery, costing and outcome expectations e.g. perceived benefits and better health. Step 6 outlined how the intervention would be evaluated including baseline and follow-ups, review of ED attendances, self-reported measures, Asthma Quality of Life Scale and Paediatric Asthma Control Test.

Discussion The intervention mapping process aided the design of an intervention tailored to a child's own data and to the specific needs of a child/family. The intervention should help a child progress to more advanced asthma management and promote a tie between child/family and GP. The next step is to implement and evaluate this intervention at Birmingham Children's Hospital to tackle the paediatric high rates of asthma hospital admissions.

Words: 345 (excluding subheadings and diagram)

P275 PREVALENCE AND TREATMENT OF ACTIVE ASTHMA IN SCOTLAND USING THE PRESCRIBING INFORMATION SYSTEM

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Background Many studies of the clinical epidemiology of asthma that have used routinely collected drug prescription or dispensing data have been limited to samples assumed to be representative of the national population from which they are drawn. Our aim was to describe asthma prevalence and treatment in children and young