

# Effects of asthma training on inhaler device selection and utilisation in general practice

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## Background

Optimal asthma symptom control is likely to result from nurses selection of, and patients' adherence to an appropriate drug delivery device. The aim of this study was to investigate the influence of structured asthma training on inhaler selection in general practice.

## Methods

### Influences on inhaler selection: 1-5 rating questionnaire

- A questionnaire was constructed using statements from interviews with asthma trained nurses
- 44 influences on device selection were identified
- The questionnaire was then piloted on a wider sample to identify ambiguities and errors
- Final questionnaire was sent to 1500 randomly selected asthma trained nurses, who were asked to rate each statement on a Likert scale of 1 (strongly disagree) to 5 (strongly agree)
- Results expressed as mean ( SD) importance score

### Rationale for inhaler selection: qualitative questionnaire

- An open-ended questionnaire was devised to explore asthma nurses' perceptions of how and why these factors influenced their choice of inhaler and was sent to 20% (300) of the original study population
- Nurses were asked 'has your asthma training affected the way you now select inhalers for patients?'
- Responses were analysed by thematic analysis.

## Results

### Influences on inhaler device selection: 1-5 rating questionnaire

- 573 (32.8%) replies to the first questionnaire were received.
- Among the most important influences on device selection were asthma training (mean 4.1; SD 0.9), lifestyle (4.24; 0.72), inhaler ease of use (4.6; 2.0), patient's preference (4.5;0.6) and poor inspiratory flow (4.4; 0.6)

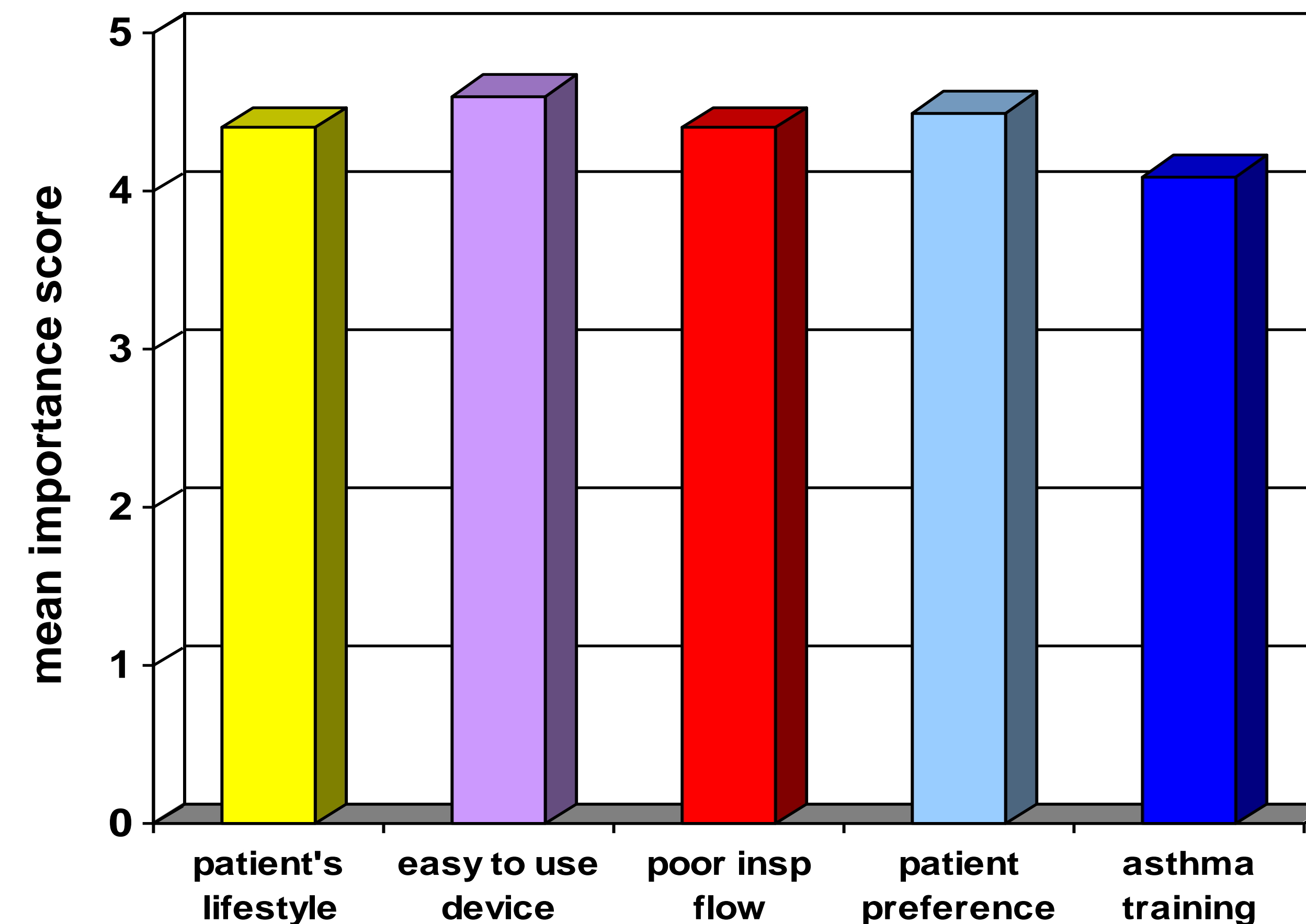


Figure 1: important influences on device selection

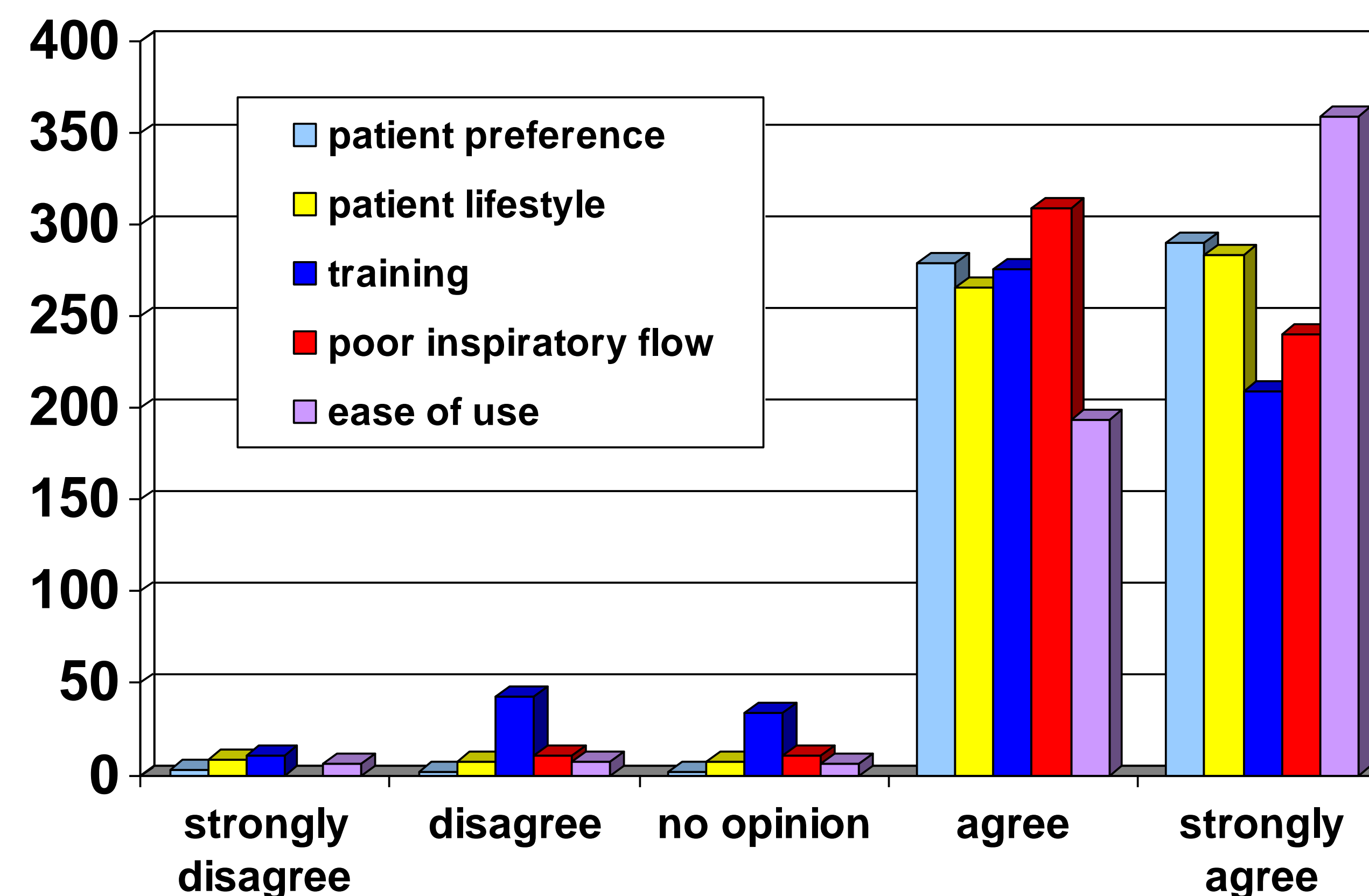


Figure 2: Distribution of scores

### Rationale for inhaler selection: qualitative questionnaire

- Response rate to the second questionnaire was 21% (n=63)
- Rationales for inhaler selection (themes) were:
  - asthma training
  - age-related considerations
  - cost
  - availability of placebo device

### Effects of training on knowledge

Respondent 20: I am 'more knowledgeable about the effectiveness of different types of inhalers/spacers' and have 'awareness of factors affecting patients preferences'.

Respondent 3: 'Device and good technique are the most important factors in ensuring good deposition of the drug, and, to a great extent, compliance'

### Effects of training on practitioner confidence

Respondent 58: 'Confidence in all inhaler devices and knowledge that compliance and ability to use effectively take precedence of manufacturer'

Respondent 27: I am 'aware that patients only use devices that they like and am now confident to teach them whichever they choose'

Respondent 37: More evidence-based information given to patients – gives me confidence in advising patients re. appropriate devices thereby improving patient confidence in my management'

### Effects of training on patient needs

Respondent 7: 'I look at the patients on an individual basis instead of just their age'

Respondent 16: 'I am more aware of the difficulties encountered, range of abilities, preferences and needs of the many people who have asthma. Also the need to help aid compliance of asthma medication'

## Key messages

- In this group of nurses, asthma training was an important influence on inhaler device selection; other high scores reflect appropriate implementation of that knowledge by consideration of patient and disease-specific selection criteria.
- Structured asthma training appears to optimise clinical performance and nurse confidence