

## Editorials

## Do smoking parents seek the best advice for their asthmatic children?

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In this issue of *Thorax* a further paper from Dundee is published which explores a group of 438 children aged 2–12 years with asthma. In their first paper<sup>1</sup> the authors investigated passive smoke exposure, as measured by salivary cotinine levels, and found that exposure to tobacco smoke was highest where housing conditions were crowded and where several heavy smokers smoked in the same room as the child. In a second paper<sup>2</sup> the authors reported that the intervention of asking the parents to reduce the exposure of their asthmatic children to tobacco smoke was ineffective.

The latest paper by Crombie *et al*<sup>3</sup> on page 9 investigates how often the 438 asthmatic children were taken to their family practitioners (GPs), either for asthma or non-asthma problems, and relates this to their smoke exposure. Smoke exposure was assessed both by salivary cotinine levels and also by the history of intensity of exposure as judged by the number of parents who smoked, how many cigarettes they smoked, and whether the parents smoked in the presence of the child. For non-asthma problems, consultation rates were not statistically different for children with different cotinine levels. However, for asthma, GP contacts were lower in those whose parents were heavy smokers, who frequently smoked in the room with their child, and where the mother or both parents smoked. When exposure was judged by cotinine levels, asthma consultation rates showed a curious relationship in that children with moderate (intermediate) cotinine levels were less likely to be seen for asthma than those with low or high cotinine levels. There was therefore some inconsistency between the history of exposure to smoke and the cotinine levels in their effect on consultation rates. Throughout the group asthma contacts were higher in those with more severe asthma, as defined by the BTS steps of treatment in the British asthma guidelines.<sup>4</sup> Independent of social class, children with asthma whose parents smoke heavily are less likely to be taken to the doctor for asthma symptoms than those with non-smoking parents, which suggests that some other factor is at work.

Passive smoking is a well established cause, not only of increased respiratory symptoms in infancy and early childhood<sup>5</sup> and in school age children,<sup>6</sup> but also of wheezing.<sup>7</sup> Many studies exploring the links between passive smoking and asthma depend on measures of asthma morbidity which include GP attendance levels; this paper cautions us

that attendance levels may underestimate morbidity in asthmatic children whose parents smoke.

The study does not give an explanation for this finding, but the authors suggest that smokers may be reluctant to take their chesty children to the doctor, perhaps for fear that they may be criticised for causing the problem by smoking. Alternatively, by themselves having chest symptoms caused by smoking, they may not take their children's symptoms so seriously, regarding a cough or wheeze as just another variety of chestiness which is to be accepted. It has been reported that adult patients with asthma found the asthmatic cough and breathlessness much less acceptable than wheeze or sleep disturbance,<sup>8</sup> yet perhaps the acceptance of cough among parents with "smoker's cough" is higher. The whole area of the tolerance or acceptance of symptoms by parents and patients, and its effect on consulting behaviour, justifies further research.

The study is important for two reasons. Firstly, it confirms that GP attendance may not in itself be a good index of morbidity for asthma in children because of the confounding factors related to parental behaviour and, secondly, children with asthma whose parents smoke may not only be more likely to develop asthma, but may be managed less closely, possibly to their detriment. Doctors and nurses should be aware of this in planning routine asthma care for children.

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- 1 Irvine L, Crombie IK, Clark RA, *et al*. What determines levels of passive smoking in children with asthma? *Thorax* 1997;52:766–9.
- 2 Irvine L, Crombie IK, Clark RA, *et al*. Advising parents of asthmatic children on passive smoking: randomised controlled trial. *BMJ* 1999;318:1456–9.
- 3 Crombie IK, Wright A, Irvine L, *et al*. Does passive smoking increase the frequency of health service contacts in children with asthma? *Thorax* 2001; 56:9–12.
- 4 British Thoracic Society, National Asthma Campaign, Royal College of Physicians of London, *et al*. The British guidelines on asthma management: 1995 review and position statement. *Thorax* 1997;52(Suppl 1): S1–21.
- 5 Strachan DP, Cook DG. Parental smoking and lower respiratory illness in infancy and early childhood. *Thorax* 1997;52:905–14.
- 6 Cook DG, Strachan DP. Parental smoking and prevalence of respiratory symptoms and asthma in school age children. *Thorax* 1997;52:1081–94.
- 7 Strachan DP, Cook DG. Parental smoking and childhood asthma: longitudinal and case-control studies. *Thorax* 1998;53:204–12.
- 8 Osman LM, McKenzie L, Cairns J, *et al*. Patient weights for asthma symptoms: an investigation of patient preferences using conjoint analysis. *Am J Respir Crit Care Med* 1999;159:A692.