LETTERS TO THE EDITOR

Smoking among children and young people in Japan

I read with great interest the editorial on children and smoking (July 1992;47:485–8). The increase in the number of under age smokers and of young women smoking is one of Japan's most important problems.[1] There seems to be no doubt that cigarette advertising (especially on television) and the sale of tobacco through vending machines in the street are responsible for the increase of smoking among youngsters.[2,3]

It is believed that about 30% of primary school pupils, 50% of junior high school students, and 70% of senior high school students in Japan have tried smoking at least once or twice. According to a recent survey by the Japan Know Your Body Study, 8% of boys and 3% of girls among third year students at junior high school (14–15 year olds) said that they smoked occasionally or regularly, but only 1% of sixth grade pupils at primary school (11–12 year olds). The survey also showed that the prevalance of smoking among third year students at senior high school (17–18 year olds) increased to 37% for boys and 15% for girls.

Now it is important to prevent smoking among junior high school students. The real issue is how to teach them not to start smoking. In Japan primary school pupils learn that smoking is unhealthy in their sixth year and children learn English at junior high school. I found some interesting illustrative antismoking sentences in an English-Japanese dictionary for junior high school students (figure). I hope that English teachers show similar attitudes toward smoking and tell their students of the health hazards as well as providing unattractive images of tobacco using these expressions.

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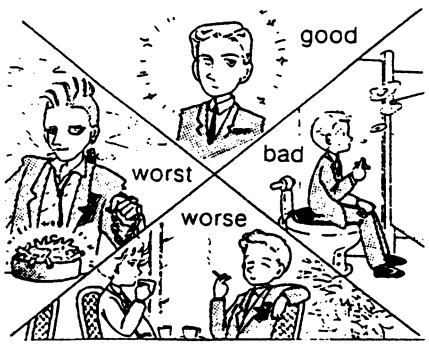
worst [wə́:rst ワ〜スト] (最上級)最も悪い.
Ken is a good boy; he never smokes. Bob is a bad boy; he sometimes smokes. Joe is worse than Bob; he often smokes. Roy is the worst of all; he always smokes. ケンはいい子です. 彼は全然タバコをすわない. ボブは悪い子です. 彼は時々タバコをすいます. ジョーはボブより悪い. 彼はしばしばタバコをすいます. ロイはみんなの中でいちばん悪い. 彼はいつもタバコをすいます.



Smoking is bad for the health. Reproduced from Sanseido's Junior Crown English-Japanese dictionary (7th ed, 1988) by courtesy of Sanseido Co Ltd.

Controlled trial of respiratory muscle training in chronic airflow limitation

In their study on respiratory muscle training in chronic airflow limitation, Dr G Guyatt and his colleagues (August 1992;47: 598–602) found no differences between resistance breathing and sham training with regard to respiratory muscle function, exercise tolerance, and wellbeing. Subsequently they discuss several strengths and drawbacks of the study, on which we would like to comment.

Although the perception of increased airflow obstruction may be decreased in patients with chronic obstructive lung disease it is hardly believable that they would not be aware of the magnitude of the inspiratory load during training sessions, even if they were in part focused on diaphragmatic breathing. On the assumption that they were correctly informed about the study design the double blindness of the study can be questioned. This may not have influenced the final results, but represents a common problem in the conduct of studies comparing low versus high training intensities.

Patients with a limited exercise tolerance due to reduced inspiratory muscle strength are likely to benefit most from specific training of these muscles.[1-3] An accurate method of establishing this is measurement of respiratory muscle force development during a maximal symptom limited exercise test,[4] or selection of patients with severely lowered inspiratory muscle strength at rest, as the authors suggest themselves.

Adopting a non-fatiguing breathing pattern during respiratory muscle training is a well known strategy to minimise the work load of these muscles. Therefore several studies have used a target pressure or flow, with visual feedback for the patient.[2,5,6] These studies did show improvement of respiratory muscle strength and endurance. In the present study by Dr Guyatt and his group training intensity was poorly controlled, as stated by the authors. Moreover, there was a considerable degree of noncompliance in this home based, partially supervised study. These considerations may provide a different view on the first part of the title of their paper.

In conclusion, the present study does not meet the criteria of properly applied inspiratory muscle training, which uses a feedback about either flow or pressure and which is diligently controlled by a supervising nurse or physiotherapist.

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1 Pardy RL, Rivington RN, Despas PJ, Macklem PT. The effects of inspiratory muscle training on exercise performance in chronic airflow limitation. *Am Rev Respir Dis* 1981;123:426–33.
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AUTHOR'S REPLY Dr Dekhuijzen and others raise several points. With respect to blindness, patients were told that the study was designed to test methods of training the breathing muscles. They were not told anything about the training regimens. None of the control group complained about conducting training without resistance. The purpose of blinding is to prevent placebo effects in the control group, and to prevent biased assessment in those measuing the outcome. We believe that our strategy achieved both purposes.

We examined our data to detect an effect in the subgroup of patients with low, or very low, inspiratory muscle pressures. We did not find a greater effect in this subgroup.

Our rigorously conducted meta-analysis provides the best current summary of the effects of respiratory muscle training.[1] Overall, we found no evidence of improvement in functional exercise capacity or functional state with training. A secondary analysis suggested that endurance and function may be improved if resistance training with control of breathing pattern is undertaken. This secondary analysis, however, met only some of the criteria for a subgroup analysis that one should believe.[2] The hypothesis that resistance training programmes in which breathing pattern and flow rate are controlled are actually of benefit to patients may warrant further investigation.

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