

FOCUS ON RESEARCH

THE EFFECT OF REMUNERATION AND EDUCATION ON THE IMPLEMENTATION OF RESEARCH EVIDENCE TO REDUCE INEQUALITIES IN ORAL HEALTH

Researchers

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Aim

To evaluate the impact of two strategies on dentists' use of a treatment to prevent decay in children's teeth. This treatment – preventive fissure sealants (PFS) - is strongly supported by research evidence. While recommended for children at high risk of tooth decay, it remains under-used. Improved prevention could help reduce oral health inequalities, as there is a strong and persistent caries-deprivation link.

Project Outline/Methodology

NHS Scotland Practitioner Services Division's database was used to sample Scottish General Dental Practitioners (GDPs) working in more deprived areas. Recruited GDPs were assigned randomly to one of four groups. The **fee group** were offered a fee for each PFS treatment they completed; the **education group** were invited to a workshop on evidence based practice; the **both group** were offered fee plus workshop; the **control group** were offered neither.

We then compared the four groups on the basis of the proportion of 12-14 year olds who had their recently erupted second permanent molars protected by PFS treatment, based on a sample 25 children seen by each GDP. Detailed psychology and economic analyses were conducted.

Key Results

Recruitment, retention and participation were good: 53% (149/284) of GDPs were recruited in 2003; 89% returned data on 2,833 children in 2005. 55 of 73 GDPs attended a workshop, and 48 of 76 claimed for PFS.

Taking account of baseline differences, 10% more children of fee group GDPs received a PFS by the end of the study. One third of children seen by GDPs offered a fee had second molars treated with PFS.

Economic analysis showed that the fee intervention was the most cost effective, and that replication of the results Scotland-wide would cost around £0.9m.

GDPs in the education group were more aware of the

value of obtaining, evaluating and using research evidence in clinical practice.

We did not find any statistically significant differences in PFS treatment relating to the education intervention, or that either intervention improved the targeting of PFS to those at high risk.

Psychology analysis revealed that variables such as GDPs' intention and extent of prior planning, while predicting placement of PFS, were not influenced by the interventions.

Conclusions

The study indicates that if PFS attracted a fee for item of service, significant numbers of Scottish children would benefit.

While the educational intervention did not encourage more PFS placement, many GDPs perceived benefits in using evidence more generally.

What does this study add to the field?

This was the first experimental study in general dental practice to use a rigorous design to compare the effects of fee and education based interventions. It demonstrates how practitioners can be encouraged to move towards more preventive care.

Implications for Practice or Policy

Changing the fee structure to promote preventive care (Scottish Executive, Nov 2005) is likely to change clinical behaviour significantly, and impact on future restorative treatment patterns for children (and related costs). Training and audit in preventive care may reinforce the impact of such a change.

Where to next?

Further research on the impact of different fee levels may be warranted, along with follow up of PFS placed by GDPs, to monitor retention rates and to estimate the level of caries prevention.

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