RESEARCH SUMMARY

Dental screening of school children

The effectiveness of school dental screening: dental attendance and treatment of those screened positive
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Objectives
To determine dental attendance and treatment outcomes following two models of dental screening.
Design An observational prospective cohort study.
Setting Infant, primary and junior schools in the North West of England.
Subjects
Children aged six to nine years at the start of the study.
Results
In the 'New model' of school dental screening 46% of screened positive and 41% of screened negative children attended a dentist during the study period. Some 44% of children referred with caries in permanent teeth attended a dentist and 53% of those attending received treatment for the referred condition. Larger proportions of children from disadvantaged backgrounds were screened positive but higher proportions of children from more affluent backgrounds attended the dentist and subsequently received treatment.
Conclusions
School dental screening has a minimal impact on dental attendance and only a small proportion of screened positive children receive appropriate treatment. The programme fails to reduce inequalities in utilisation of dental services.

IN BRIEF

- School dental screening is ineffective at prompting children to attend a dentist.
- Screened positive children fail to receive appropriate dental care.
- School dental screening fails to reduce socio-economic inequalities.
- Can school dental screening in its current format be justified?
- Can access to schools afforded by dental screening be better used?

COMMENT

Dental screening of school children is a long established function of the Community Dental Service. The objective of screening is the detection of an unrecognised health problem in an individual in order to secure effective care. A previous randomised control trial of dental screening of children aged six to nine years reported no benefit from dental screening of school children in terms of reducing the levels of untreated dental disease or stimulating dental attendance. The results of this study show that school dental screening is ineffective in promoting dental attendance (irrespective of whether a Traditional or New Model of screening is utilised). In addition there was a low level of post screen treatment carried out for those children who were screened positive.

However, analysis in relation to the provision of treatment was confined to the new model of dental screening population only. Whilst the study indicates that screening was ineffective in promoting dental attendance there is no reference to potential local issues in relation to dental access. If access to dental care is a significant problem in the study area then that will impact upon the subsequent attendance of screen positive children. An important principle of screening is that adequate treatment facilities are available for those individuals who are screened positive and subsequently diagnosed positive.

An important finding from this study is that school dental screening has the potential to increase inequalities in dental health. When the study population was broken down into quintiles, according to the Index of Multiple Deprivation, children in the most affluent quintile were less likely to be referred from dental screening than children in the most deprived quintile. But once referred, however, children in the most affluent quintile were more likely to subsequently attend a dentist. Once again there is no information in relation to dental access patterns within the identified quintiles.

This study reinforces the findings of other investigations into the outcomes of dental screening of school children. Subsequent uptake and utilisation of dental care is disappointing. There are ethical issues raised in relation to the continuance of a screening programme that does not produce clear benefit to individuals screened. It is appropriate to consider whether the cost of screening (both opportunity and financial) exceeds the benefit obtained. There is a need for a policy decision at national level in relation to the continuance of dental screening programmes in the light of current evidence around effectiveness.

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