

IN BRIEF

- Dentists are relative strangers to controversy.
- Dentists may feel uncomfortable discussing controversial issues.
- Individual dentists may take some comfort from knowing how other colleagues feel.

Attitudes to water fluoridation in general dental practice in the North East of England

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Objective To find out the knowledge of, and attitudes towards, water fluoridation of a sample of general dental practitioners working in the North East of England.

Design Anonymous, self-completed postal questionnaire.

Setting North East of England, both a fluoridated and non-fluoridated area.

Subjects and methods Following a small pilot survey, questionnaire to 79 general dental practitioners (44 in a non-fluoridated area, 35 in an area supplied with fluoridated water at one part per million) contracted to provide National Health Service (NHS) treatment in the North East of England.

Results Fifty-five general dental practitioners returned questionnaires (a 70% response rate). Most respondents supported the principle of water fluoridation. Over half of the respondents indicated that they would benefit from more information and training on the issue of water fluoridation. There were marked differences in knowledge and attitudes to fluoridation between dental principals and associates. The sample was evenly split about what to do with a parent who was unsure about (whether to support) fluoridation even after the dentist had discussed the issue and answered questions.

Conclusions The majority of general dental practitioners support water fluoridation although some lack knowledge and expertise which might inhibit advocacy of it.

Public health arguments rarely intrude on day-to-day dental clinical activity. Occasionally, the spectre of long waiting times may overshadow referral decision-making or pressures on National Health Service (NHS) dentistry may provoke debate on access issues for individual patients. Unlike our medical colleagues, dentists get involved in relatively few controversial public health issues, so it is important to understand how general dental practitioners feel about public health issues that might be raised in their

surgeries,¹ and for which their support is most valuable about water fluoridation. We already know how the public feel.² So, we conducted a study of North East general dental practitioners knowledge and attitudes to water fluoridation, and compared them with the findings of a similar study of medical health professionals and mumps, measles and rubella combined vaccination (MMR).³

METHOD

Following a small pilot survey, an anonymous, self-administered questionnaire was sent to all general dental practitioners contracting to provide care on the NHS in a health district (44 in a non-fluoridated area, 35 in an area supplied with fluoridated water at one part per million) contracted to provide NHS treatment in the North East of England. A copy of the British Dental Association (BDA) fact file on fluoridation (which was available at the time of the study) was enclosed with the questionnaire. A reminder was mailed to all participants and the results were analysed on an *Excel* spreadsheet.

RESULTS

Fifty-five GDPs returned the questionnaires (a 70% response rate), 39 (71%) of whom were principals (contracted personally to provide NHS dental treatment as an independent practitioner), 15 (27%) were associates (contracted personally to provide NHS dental treatment in association with a principal), one (2%) was a vocational dental practitioner (a formal training relationship with a principal). As with the answers to the questionnaire, there were no differences in the response rate between practitioners in fluoridated or non-fluoridated areas.

Most respondents supported the principle of water fluoridation to prevent dental decay (58% strongly without any reservations, 38% with some reservations). Over half the respondents indicated they would benefit from more information and training on the issue of water fluoridation, and 58% would like training on how to advocate it. Just under a third of respondents (30%) had read the BDA fact file, and all of them found it extremely or moderately useful. Respondents wished to have improved sources of information on levels of fluoride in their local water supplies (obtainable from the consultant in dental public health serving the area of residence/practice location). There was also a reluctance to supply fluoride supplements to children who needed them for fear of litigation (whether justified or not).

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Table 1 Responses to key questions by status of respondent

Question	Dental Principal % (n = 39)	Dental Associate % (n = 16)
Prescribes fluoride	25	15
Confidant to discuss dental benefits of fluoride	56	38
Would refer any complex fluoride queries to a consultant in dental public health	25	54
Fluoride supplements are appropriate in high caries risk cases, in a non-fluoridated area	75	100
Training is needed on water fluoridation in general	61	38
Training is needed specifically on advocating the use of fluoride to fight dental disease	56	62
Water fluoridation is a good thing and should be encouraged without any reservations	53	69

Table 2 Comparing confidence of 206 general medical and 79 dental practitioners (GMPs, GDPs) advocating controversial public health issues (MMR, Water fluoridation)

GMP/MMR (%)	Confidence	GDP/WF (%)
46	Very confident	52
46	Fairly confident	40
8	Not confident	6
0	Not confident at all	2

There were marked differences in knowledge and attitudes to fluoridation between dental principals and associates. Principals were more likely to prescribe supplements, be confident in discussing the dental benefits of fluoride and think training is needed on water fluoridation in general; whereas associates were more likely to refer any complex fluoride queries, think fluoride supplements appropriate in high risk/low fluoride areas, and think water fluoridation should be encouraged without any reservation (Table 1).

A small number of respondents erroneously thought it was possible that excess fluoride ingestion may be associated with osteoporosis (18%), hyperthyroidism (8%), osteosarcoma (6%), gastric carcinoma (6%) or down syndrome (2%). Though most respondents correctly stated that such an association was unlikely (70%, 70%, 76%, 76%, 88% respectively), under a quarter did not know. In relation to active advocacy, the sample was evenly split regarding what to do with a parent who was unsure about (whether to support) fluoridation even after the dentist had discussed the issue and answered questions. Half (48%) said they would continue to recommend fluoridation, 48% said they would not take the matter forward and would try not to influence the parent either way.

DISCUSSION

Whilst there are differences between principals and associates, most general dental practitioners in this survey supported water fluoridation. This is important because the general public are likely to seek their opinions on the issue,⁴ and if new water fluoridation schemes are to be implemented, the support of all health professionals including GDPs will be vital and of practical help.

This study shows that some GDPs lack knowledge of water fluoridation (for example, any possible effects on general health), and that this uncertainty (perhaps exacerbated by lay press handling of the issue)⁵ may result in only half of general dental practitioners actively advocating the issue. This is not unique to dentistry or this issue: the position is similar for doctors and, for example, MMR (which has been controversial in the United Kingdom) (Table 2).

Dentists express a need for training support, especially in this complex area of dental public health. To those who have to deal with the issue from day-to-day, it can be difficult to keep up-to-date and enthusiastic; for most general dental practitioners, water fluoridation is an occasional issue. If support for the issue is to be sustained, the training and support must be forthcoming, and not just when new schemes are contemplated; many dentists work in fluoridated areas where schemes have to be defended against relentless anti-fluoridation pressure (and where dentists can be encouraged to capitalise on their patients' good teeth to promote the benefits of fluoride).

Finally, there is a lesson for the undergraduate curriculum. Medical students are actively taught from early on in the curriculum how important public health advocacy is, their duty as health professionals to be active public health advocates, and the rudiments of advocacy. Though dentistry has fewer dental public health advocacy opportunities, nevertheless the skills of future dentists in this area should be developed. It will be a missed dental public health opportunity if general dental practitioners cannot or will not advocate water fluoridation.

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Information on water fluoridation (for example occasional papers from the Medical Research Council) can be obtained from the British Fluoridation Society, Ward 4, Booth Hall Children's Hospital, Charlestown Road, Manchester M9 7AA Email: bjfs@bjfsweb.org; Tel/fax: 0161 220 5223; Website: www.bjfsweb.org

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