

https://dspace.org/

Attitudes of recent medical graduates and East Rand doctors to water fluoridation

Jodaikin, A.

1981

http://hdl.handle.net/10539/19577

Jodaikin, A. 1981. Attitudes of recent medical graduates and East Rand doctors to water fluoridation. South African medical journal;59(26):951-2

Downloaded from a DSpace repository. https://dspace.org/

Attitudes of recent medical graduates and East Rand doctors to water fluoridation

A. JODAIKIN

Summary

Samples of medical practitioners on the East Rand and 1979 graduates from two medical schools in the Transvaal were asked to complete a questionnaire dealing with the fluoridation of drinking water. Of the 94,9% who responded, 78,4% supported the fluoridation of drinking water, 7,2% did not, 13,4% were doubtful, and 1% declined to answer. The majority of the subjects did not have any formal education dealing with the fluoridation of drinking water during undergraduate medical courses, and 94,8% of the East Rand practitioners had not attended postgraduate courses on the subject. In order to improve community health on an individual and on an organizational level, it is important that the medical profession effectively assess the question of water fluoridation. Adequate medical undergraduate and/or postgraduate education dealing with the fluoridation of drinking water as well as oral health is therefore necessary.

S. Afr. med. J., **59**, 951 (1981).

The Commission of Inquiry into Fluoridation[1] appointed by the State President in 1966 recommended that 'steps should be taken to encourage, advise and assist local authorities to fluoridate the water supplies of their communities as soon as possible'. More than a decade later, the health professions have failed to ensure that the South African public are benefiting from this preventive measure.

Although the attitudes of various public groups to the fluoridation of water have been described,[2-4] these may in most cases be based on criteria which detract from the objective assessment of the fluoridation of drinking water. René Sand's statement: 'Health cannot be given to people, it demands their participation', quoted by Schwartz and Hansen,[4] is valid. It is, however, the health professions who have the means to assess a preventive procedure. Once satisfied with its safety and effectiveness, they should encourage the general population to participate in deriving the benefits from a particular health regimen. An important component of the health profession in this regard is the medical profession.

Taljaard,[5] in a survey based on a 30% response to questionnaires distributed to officials of the Department of Health, reported the responses of a selected sample of South African medical practitioners to water fluoridation. Six per cent of the 179 replies received revealed that they had never read or heard about the fluoridation of drinking water. Of the remaining 94%, approximately 86% supported water fluoridation, 5% were against this measure, and 9% were doubtful about it.

Since various regions in South Africa do not have optimal fluoride levels in drinking water, dentists often advise patients to use fluoride tablets if the water fluoride levels are substantially low. Many of these patients request advice from medical practitioners in this regard. It is therefore imperative that dentists and doctors have the necessary background information in order to correctly advise patients, as well as to use the opportunity to enlighten patients as to the safety, effectiveness and economic advantages[6] of water fluoridation over fluoride tablets and other known regimens.

The purpose of this investigation was to determine the attitudes of samples of East Rand medical practitioners and recent Transvaal medical graduates to water fluoridation, and to assess whether they had received adequate education on this subject.

Subjects and methods

Proportional random samples (area stratum) of East Rand medical practitioners registered with the Eastern Transvaal Branch of the Medical Association of South Africa and random samples from each of the 1979 classes of graduates from the Universities of Pretoria and the Witwatersrand were asked to complete a questionnaire (Fig. 1) on the fluoridation of drinking water. The retrieved questionnaires (94,9%) were recorded on computer cards and analysed in an IBM 370/158 computer using the *Statistical Package for the Social Sciences.*[7]

Results

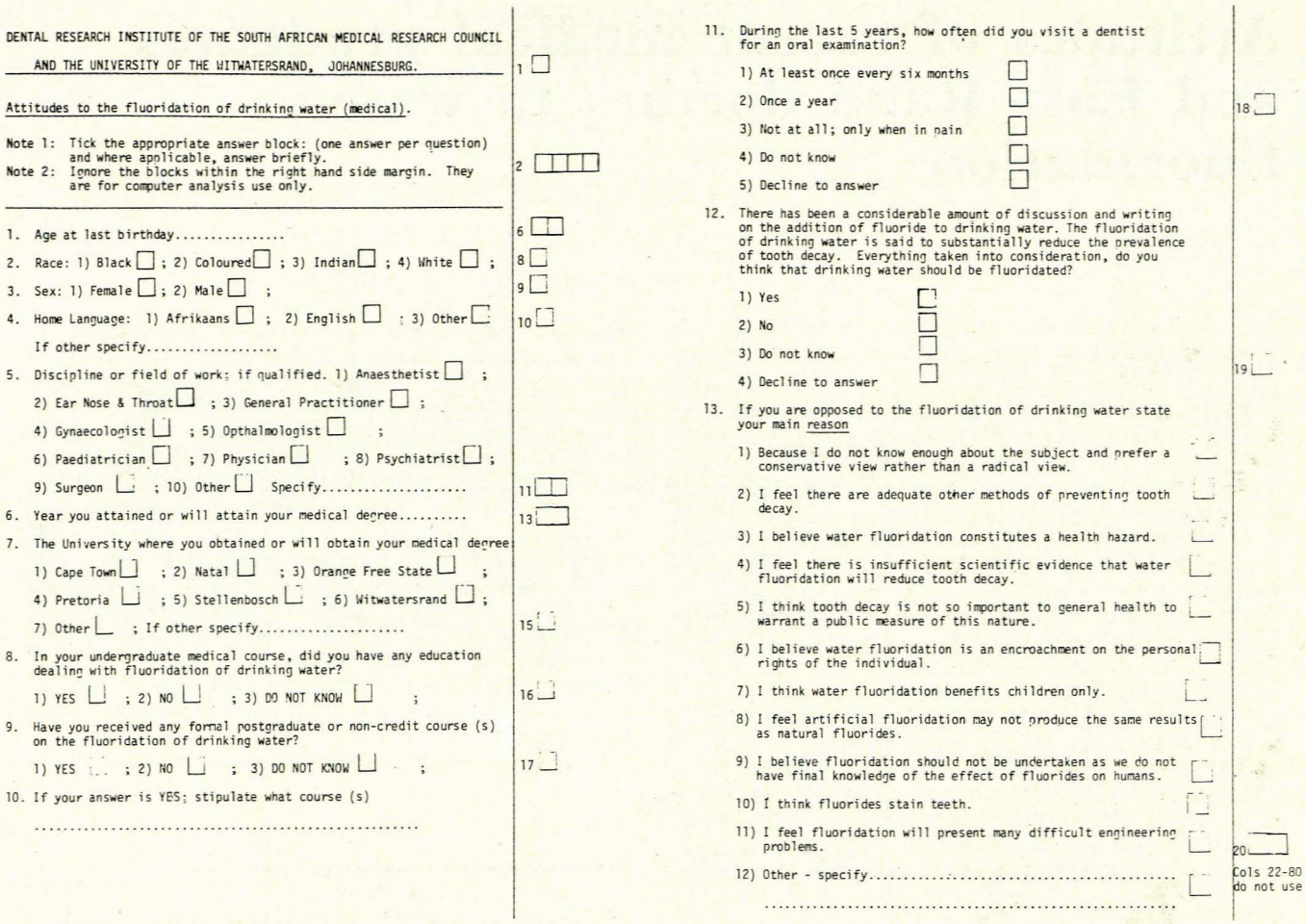
Of the 94,9% who responded, 78,4% supported the fluoridation of drinking water, 7,2% did not, 13,4% were doubtful, while 1% declined to answer. The results of this study indicate that there are no obvious differences between the East Rand medical practitioners and the two groups of recent graduates with regard to their responses to the fluoridation of drinking water. Variables such as age, sex, race, university of graduation and home language did not reveal obvious differences in response to the question of the fluoridation of drinking water. It is of interest to note that none of the specialists was opposed to water fluoridation, although more than 20% of them did not know whether or not to support it.

Of those who opposed the fluoridation of drinking water, 21% did so because of lack of knowledge, preferring a conservative rather than a radical point of view, and 26% because they felt that the effects of fluorides on humans were not completely known.

In the group of medical practitioners who did not visit a dentist (except when in pain) a relatively lower percentage (65,4%) supported fluoridation and a relatively higher percentage (19,2%) did not support fluoridation than in the two groups that visited a dentist at least once a year.

MRC/University of the Witwatersrand Dental Research Institute, Johannesburg
A. JODAIKIN, B.D.S.

Date received: 12 January 1981.



DENTAL RESEARCH INSTITUTE OF THE SOUTH AFRICAN MEDICAL RESEARCH COUNCIL AND THE UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG. 1

Attitudes to the fluoridation of drinking water (medical).

Note 1: Tick the appropriate answer block: (one answer per question) and where applicable, answer briefly.
Note 2: Ignore the blocks within the right hand side margin. They are for computer analysis use only. 2

1. Age at last birthday..... 6
2. Race: 1) Black ; 2) Coloured ; 3) Indian ; 4) White ; 8
3. Sex: 1) Female ; 2) Male ; 9
4. Home Language: 1) Afrikaans ; 2) English ; 3) Other 10
   If other specify.....
5. Discipline or field of work: if qualified. 1) Anaesthetist ;
   2) Ear Nose & Throat ; 3) General Practitioner ;
   4) Gynaecologist ; 5) Opthalmologist ;
   6) Paediatrician ; 7) Physician ; 8) Psychiatrist ;
   9) Surgeon ; 10) Other Specify..... 11
6. Year you attained or will attain your medical degree..... 13
7. The University where you obtained or will obtain your medical degree
   1) Cape Town ; 2) Natal ; 3) Orange Free State ;
   4) Pretoria ; 5) Stellenbosch ; 6) Witwatersrand ;
   7) Other ; If other specify..... 15
8. In your undergraduate medical course, did you have any education dealing with fluoridation of drinking water?
   1) YES ; 2) NO ; 3) DO NOT KNOW ; 16
9. Have you received any formal postgraduate or non-credit course (s) on the fluoridation of drinking water?
   1) YES ; 2) NO ; 3) DO NOT KNOW ; 17
10. If your answer is YES; stipulate what course (s)
    .....

11. During the last 5 years, how often did you visit a dentist for an oral examination?
    1) At least once every six months
    2) Once a year 18
    3) Not at all; only when in pain
    4) Do not know
    5) Decline to answer
12. There has been a considerable amount of discussion and writing on the addition of fluoride to drinking water. The fluoridation of drinking water is said to substantially reduce the prevalence of tooth decay. Everything taken into consideration, do you think that drinking water should be fluoridated?
    1) Yes
    2) No
    3) Do not know
    4) Decline to answer 19
13. If you are opposed to the fluoridation of drinking water state your main reason
    1) Because I do not know enough about the subject and prefer a conservative view rather than a radical view.
    2) I feel there are adequate other methods of preventing tooth decay.
    3) I believe water fluoridation constitutes a health hazard.
    4) I feel there is insufficient scientific evidence that water fluoridation will reduce tooth decay.
    5) I think tooth decay is not so important to general health to warrant a public measure of this nature.
    6) I believe water fluoridation is an encroachment on the personal rights of the individual.
    7) I think water fluoridation benefits children only.
    8) I feel artificial fluoridation may not produce the same results as natural fluorides.
    9) I believe fluoridation should not be undertaken as we do not have final knowledge of the effect of fluorides on humans.
    10) I think fluorides stain teeth.
    11) I feel fluoridation will present many difficult engineering problems. 20
    12) Other - specify.....
    .....

Cols 22-80 do not use

Fig. 1. A questionnaire on the fluoridation of drinking water.

The majority of individuals had received no teaching on the fluoridation of drinking water during their undergraduate medical course and 94,8% of the East Rand practitioners did not attend postgraduate courses on this topic.

Discussion

The pooled and East Rand practitioners' responses to the fluoridation of drinking water appear to differ from those in the investigation by Taljaard,[5] in which a higher percentage of subjects supported water fluoridation. This difference may be attributed to sample selectivity, the 30% response obtained and/or questionnaire differences.

The correlation of attitudes to water fluoridation and the frequency of dental visits are similar to the trend displayed by Schwartz and Hansen[4] in a study which assessed the attitude of the Danish public to water fluoridation. They showed that the smallest percentage of support for water fluoridation was found in the group that did not visit a dentist.

The comparison between the responses of groups which did and did not have undergraduate or postgraduate fluoridation education did not display definite trends. There were contradictions with regard to undergraduate courses concerning fluoridation from the responses of members of the same class. This may be attributed to variable patterns of course attendance or to the fact that formal courses on this subject are not always made available.

The majority of subjects received no formal education on the fluoridation of drinking water. In order to improve community health on an individual and on an organizational level, it is important that the medical profession effectively assess the question of water fluoridation. Adequate medical undergraduate and/or postgraduate education dealing with the fluoridation of drinking water, as well as oral health, is therefore necessary.

I am grateful to Dr P. de Klerk for assisting with the Afrikaans translation of the questionnaire and Drs R. Herr and A. Shawinsky for helping with the retrieval of some of the answered questionnaires. I also acknowledge the guidance received from Professor P. Cleaton-Jones of the Dental Research Institute, University of the Witwatersrand, and thank Mrs J. Long for typing the manuscript.

REFERENCES

1. Commission of Inquiry into Fluoridation (1966): *Report of the Commission of Inquiry into Fluoridation* (RP 17/1967): Pretoria: Government Printer.
2. Jackson, D. (1972): Brit. dent. J., **132**, 219.
3. Heløe, L. A. and Birkeland, J. M. (1974): Community Dent. Oral Epidem., **2**, 95.
4. Schwartz, E. and Hansen, E. R. (1976): *Ibid.*, **4**, 182.
5. Taljaard, L. T. (1979): J. dent. Ass. S. Afr., **34**, 155.
6. Cleaton-Jones, P. E. (1979): Paper presented at the National Symposium on Water Fluoridation, Pretoria, 3 October.
7. Nie, N. H., Hull, C. H., Jenkins, J. G. *et al.* (1975): *Statistical Package for the Social Sciences*, 2nd ed. New York: McGraw-Hill.