

The Fight Over Water Fluoridation in Israel—Potential Modes of Action in Light of the “American Experience”

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The article “Why I continue to support water fluoridation” by Herschel S. Horowitz (1) published in 2000 was a reply to “Why I changed my mind about water fluoridation” by John Colquhoun (2) in 1997. These two papers are only small examples, along with many publications in the United States and other parts of the world, of the ongoing intensive, emotional, and relentless debate over water fluoridation. The controversy started even before 1945, when Grand Rapids, Michigan, became the first city to adjust the level of the fluoride in its drinking water to the recommended optimal level (3).

Water fluoridation in Israel was initially introduced on a municipal level in Jerusalem in 1981 (4). However, the Knesset (Israeli Parliament) approved nationwide fluoridation legislation only in 1998. The aim is that about 95 percent of Israel’s population will benefit from fluoridated water (5). In practice, the natural water fluoride levels will be adjusted to those optimal levels that have been established by combining specific local conditions with scientific worldwide experience. This project, based on valid and scientifically accepted research criteria, should provide the most efficient, safe, and cost-effective method for preventing and decreasing the level of dental caries (6).

Over the past year, a campaign against the fluoridation project has become more and more evident in Israel. The material published by opponents of fluoridation—distributed in pamphlets, daily journals, and mass media resources—illustrates, as in the United States, an endless and unrestrained “duel” between opponents and supporters of fluoridation. Similar to the situation in the United States, the opponents are waging the brunt of the

campaign. The advocates are heard to a much lesser degree by the public.

In the United States, the issue of water fluoridation is decided upon by referenda at local levels. The distressing reality is that residents are not always in favor of water fluoridation (7). It is a well-known fact that those opposing fluoridation invest endless efforts and substantial amounts of money for antifluoridation propaganda, especially adjacent to the voting date. There are also reports from other countries in the world indicating that fluoridation has been ceased mainly due to political pressure (3,7,8).

In Israel, local referenda are unprecedented. Therefore, the political battlefield is transferred to the municipal authorities and the Knesset. As already mentioned, legislation in favor of national water fluoridation in Israel was approved in 1998. The implementation date has already been postponed from 2001 to June 2002. The Ministry of Health has explained this as “due to technical constraints.” It would not be unexpected to hear the opponents’ voices become even louder as the implementation date approaches. As in the United States, in addition to mass publications, the opponents recruit the help of public representatives, public workers, mayors, members of the Knesset, and government ministers with the ultimate aim of creating and expanding an antifluoridation lobby. These “recruited forces,” motivated by their own political agenda, potentially express antifluoridation opinions at local and national levels.

The pivotal component of Israeli fluoridation opponents’ objections to fluoridation concerns the public’s health and safety. Fluoridation opponents claim that fluoride added to drinking water may put at stake the

well-being and quality of life of the public. Unscientific publications appear regularly in the daily journals and electronic mass media with no references to supporting studies mentioned. Rather, the public is flooded with names of individuals and organizations, as well as so-called studies that apparently present fluoride as a dangerous and poisonous element (9). Israeli antifluoridationists totally ignore or even deny the demonstrated role of fluoride, which at optimal dosage plays a major role in lowering and preventing dental decay.

The issues of civil rights, the right to freedom, the supposed lack of need for fluoridation among adults, and the price and suggested low cost effectiveness are not as popular in the antifluoridation campaign in Israel as they are in the United States (3). However, these issues, too, need to be dealt with as an integral part of any nationwide oral health campaign.

The inevitable question that should be brought to discussion at this critical time is: what are the best actions to be taken by the supporters of fluoridation in Israel, especially in light of the American experience?

The “No Comment” Approach

One of the possible modes of action against the increasing antifluoridation wave is restraint and avoidance of any confrontation. This “no comment” approach, often mentioned in the American literature (3,6,7), is based on the logic that by bringing the fluoridation issue to full public awareness, an increasing level of fear related to possible health damage and doubt about safety, efficacy, and essentiality is anticipated, and would actually serve the interest of the opponents.

A wealth of information is currently conveniently accessible, including the

popular and commonly used Internet data resources. The Israeli public is also more intensely involved in political decision making. The terms "transparency" and "visibility" have gained increasing popularity in every aspect of government-controlled life. These facts disallow avoiding a full and optimal response to the ongoing anti-fluoridation propaganda.

Education and Persuasion

The main and most important mode of action is, undoubtedly, continuous persuasion. The supporters of fluoridation, morally and professionally, have a clear conscience. None of the many studies on fluorides have ever demonstrated negative or damaging health effects as defined by scientific criteria (3,6-8,10). Fluoridation of drinking water—together with viral disease vaccinations, water chlorination, and milk pasteurization—is considered by the medical establishment as one of the most significant worldwide successes in promoting public health and disease prevention.

In the year 2000 the US Surgeon General published for the first time a report dedicated to the oral health status of US citizens (10). That report surveyed trends in the state of oral health over the last 50 years and concluded that the significant proven improvement in caries disease was mainly due to the widespread use of fluorides in drinking water and dentifrices.

Nevertheless, the American experience demonstrates that, despite profound persuasive efforts, which are continuously conducted, there is no decrease in the extent and intensity of the anti-fluoridation propaganda (3,11). A situation in which the many efforts invested in promoting fluoridation are regarded as Sisyphean has to be urgently avoided.

The mission for dental public health workers and academicians is neither easy nor simple. A wide range of subjects need to be explained adequately to the public and its leaders. Among others, these include: the meaning of scientific evidence-based care, the significance of toxic doses ("only the dose makes a poison"), the strong support of dentists for fluoridation despite the fact that this might potentially harm them financially, and the value of narrowing social health disparities obtained via nationwide fluoridation.

A Global Effort

A continuous daily struggle of the supporters must, in our opinion, continue on a worldwide level and be adjusted to different target groups in different countries. It is pertinent to establish a global bank of information that would concentrate all past and present data regarding the issue of water fluoridation. This bank would be available to every country for both contributing from its own experience and benefiting from the experience of others. In this way professional and academic staff will be able to present clearly and immediately not only the scientifically proven advantages of fluoridation for public health, but also the lack of danger from a controlled use of fluorides. This is in contrast to what the opponents would like the public to hear. In addition, updated governmental publications for the professional and academic staff as well as for those in the public service should be available and sent to all those concerned. It is important to remember the fact that the largest target group, the public and its leaders, is commonly exposed to publications through daily multimedia and, to a much lesser extent if at all, to scientific publications. Therefore, nationwide publications (Internet, daily papers, and multimedia) should not be exclusively dominated by the opponents. We must provide the public with the right "tools" for demanding from the authorities the health benefits derived from fluoridating drinking water.

The dental public health profession, throughout the world, needs to be aware of the fact that the fluoridation battle has no boundaries. Most of the anti-fluoridation lobby in Israel has been launched from the United States. In each country we need to address this fact and fully realize the consequences of a domino effect. The dental health loss of one region is a loss to us all.

The Accountability and Quality Assurance Approach

In the past, many organizations and institutions were not expected to supply evidence-based rationales for their actions. Due to ongoing social, ethical, and legal developments, they now are demanded to supply detailed accountability for their principles and actions. This development is positive and should only be encouraged and taken

advantage of.

In July 2001, a failure in the water system in one area in Israel led to suspected chemical contamination and resulted in public panic and confusion. For one day, water supplies were cut off in one central region. This event revealed the high sensitivity and tremendous impact on the public of drinking water quality. The responsible, fast, effective, successful, and fully accountable handling of this failure by the national water authorities resulted in no health damage whatsoever. This was evidence of the highest professional responsibility related to this subject. This conduct stands in stark contradiction with the impression that fluoridation opponents tried to create. The anti-fluoridation lobby pounced on the event as an illustration of poor water quality supervision, inadequate monitoring of water content, and unprofessional handling of technical failures. The public health establishment needs to demonstrate that this event was an example of responsible accountability.

The Donabedian model (12) of quality assurance is most relevant to the present discussion. The model is based on the principle that the desired outcome, which in the case of water fluoridation is the prevention of dental decay by optimal concentration of fluoride in drinking water, will be achieved if the structure (standardized adequate equipment and skilled and trained personnel), as well as the process (maintenance plans, preparations of mechanisms for rapid resolution of problems, and precise and detailed registration) would follow the accepted and known protocols.

We would like to bring an example from our personal experience. Recently we were invited to a meeting on the subject of water fluoridation in a town near Tel Aviv, which was attended by the city mayor, academic faculty members, representatives of the Ministry of Health, and a municipal staff including representatives of the department of environmental affairs and water engineers. We ended the meeting with the following conclusions: It is imperative to emphasize repeatedly that the efforts needed to achieve effective and beneficial results are neither easy nor straightforward; however, they should lead to important public health benefits. Public dele-

gates have a social and ethical commitment to their constituents, especially the lower social classes, which usually demonstrate a higher morbidity from dental caries. The apprehension of local authorities to become involved and to take responsibility for a complicated task is not uncommon, but unacceptable under any circumstances.

It is easy to accept the relentless opposition to water fluoridation as a *fait accompli*. For public health workers, who have always been attentive to the community, it is also tempting to accept defeat and revert to the alternative, less controversial, means of preventing caries. These traditionally have included optimal oral hygiene, dietary modification, fissure sealants, and individual use of topical and systemic fluorides. These measures might be effective for certain individual sectors of the public. However, we firmly believe that none of these methods can even approach the potential health effect of water fluoridation for the whole population. This is most significantly relevant for the lower socioeconomic

groups, who *a priori* can only be optimally reached by water fluoridation.

The American experience helps us to understand that the opposition to water fluoridation will not diminish, but—on the contrary—is expected to strengthen. We must look forward without illusions, and anticipate and establish effective modes of action and cooperation. These will serve as the basis for our ongoing frank and persuasive efforts, derived from a deep and honest belief in the justice of our way.

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