A historic look at Canadian’s attitude on water fluoridation

What is this research about?
Fluoride was added to drinking water because research found that fluoride lowered the rate of tooth decay (cavities). There has always been controversy and debate about fluoridation. This paper looks at the history of fluoridation in Canada from 1945-1980. The researcher looks at the attitudes of society on advances in medicine and science and their trust in experts.

How can you use this research?
Policymakers & organizations working in public health and oral health can learn about the history of the fluoride issue in Canada and use this information when working in the area of fluoridation.

Consumers and citizens groups can use this information to learn the history of both side of the fluoride debate.

About the Researchers:
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Article citation:

What you need to know:
The 1950s and early 1960s are said to be a time of trust in science and medicine. Adding fluoride to drinking water has often been controversial in Canada. Looking at the history of this issue, this study shows attitudes of uncertainty and anxiety about science and medicine during this time.

Cite this work:

Keywords:
Medicine, science, experts, fluoridation, populism, drinking water.

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What did the researchers do?

The history of fluoridation in Canada was studied. They researched fluoridation debates in Canada and gathered data on public attitude. Sources searched included: the newspapers of 3 large cities, and letters to national, provincial and local authorities. This information was used to show how the two sides presented their arguments.

What did the researchers find?

In the early 1950s, medical and dental associations as well as individual doctors, dentists and researchers began endorsing fluoride in drinking water. The evidence showed it reduced tooth decay and the experts agreed it was safe. There were also outspoken experts, citizens groups, and individuals on both the anti- and pro-fluoride side.

The laws for implementing water fluoridation varied by province. Most often a referendum (a vote by the public on a single question) was required. Although the votes were usually close, fluoridation failed to pass more than 60% of the time. The researcher found the following areas of debate and the arguments that each side of the issue presented:

<table>
<thead>
<tr>
<th>Areas of debate</th>
<th>Anti-fluoridation side of the debate</th>
<th>Pro-fluoridation side of the debate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science &amp; expertise</td>
<td>Proud of their research and scientific literacy. Warned that science had been wrong in the past; not enough research had been done</td>
<td>Limited material available for the public. Key message was to trust the experts.</td>
</tr>
<tr>
<td>Health effects</td>
<td>Argued fluoride could cause a range of health problems: cancer, heart disease, birth defects, kidney problems, skeletal changes, allergic reactions</td>
<td>Fluoride would reduce tooth decay (and therefore further infections and mouth diseases). Excessive fluoride would cause skeletal fluorosis. Rejected other negative health claims</td>
</tr>
<tr>
<td>Civil rights</td>
<td>Infringement on personal freedom – people should not have to consume a substance against their will</td>
<td></td>
</tr>
<tr>
<td>Cost</td>
<td>Most water isn’t consumed for drinking; it is used other ways. Other sources of fluoride would be more cost efficient</td>
<td>Fluoridation was low-cost per person and would cut down on dental bills and lead to significant long-term savings</td>
</tr>
<tr>
<td>Natural?</td>
<td>The type of fluoride being added to water in not natural (not the same chemical formula as what is found naturally in water)</td>
<td>Fluoride is found naturally in nearly all streams and ground water, but it doesn’t add up to the right amount for preventing tooth decay</td>
</tr>
<tr>
<td>Environment</td>
<td>Fluoridation might endanger aquatic life</td>
<td></td>
</tr>
<tr>
<td>Radical theories</td>
<td>Fluoridation was a communist plot. Fluoridation was a way for the aluminum industry to get rid of toxic waste products</td>
<td></td>
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</tbody>
</table>

Many historians have described a significant switch in attitude between the 1950s and the late 1960s. They describe the 1950s and early 1960s as a time when people believed in science, medicine, and experts; and the late 1960s and 1970s as more radical and liberal times.

Using fluoridation as an example, this study shows attitudes of uncertainty and anxiety about scientific progress in the 1950s.