The awareness and behaviour of dutch women before and after the national folic acid campaign in the northern netherlands - What is the role of the pharmacist?

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Pre-conceptional use of folic acid reduces the risk of a child with a neural tube defect considerably. In November 1993, Dutch health authorities recommended that women planning pregnancy should take folic acid pills in the periconceptional period to reduce the risk of fetal neural tube defects. In the Autumn of 1995, a national campaign was organized to inform women and health care professionals in a systematic way. To evaluate the effect of the Dutch National Folic Acid Campaign, we studied the knowledge and behaviour of periconceptional use of folic acid before and after the folic acid campaign.

Four cross sectional studies in the Northern Netherlands in four subsequent years (1994, 1995, 1996 and 1998) were carried out. Pregnant women who visited the midwife, obstetrician or general practitioner for the first or second consultation during pregnancy were asked to fill out a questionnaire about their knowledge and behaviour regarding folic acid. The first two surveys in 1994 (n=485) and 1995 (n=352) were before the national folic acid campaign and the two in 1996 (n=350) and 1998 (n=453) were one and three years after the campaign, respectively.

The results of these four surveys show that awareness of folic acid increased dramatically over the years. In 1994 and 1995, less than half of the women had heard of folic acid before their pregnancy, whereas this percentage was nearly 75% in 1998. Although most of the pregnant women had heard of folic acid, they did not all know the recommended period to use it. Of the lower-educated women, 25% knew the advised period compared to 60% of the higher educated women.

Of the 453 respondents in 1998, 85% planned their pregnancy, of whom 78% had heard about folic acid before pregnancy. The percentage of pregnant women who used folic acid during the entire recommended period increased from 0.4% in 1994 to 35.5% in 1998. For use during any part of recommended period, the percentage was 7.8 in 1994 and 62.5 in 1998 (table).
Table. Compliance with the advised period for folic acid use (4 weeks prior to 8 weeks after conception) in the Northern Netherlands.

<table>
<thead>
<tr>
<th></th>
<th>number of respondents</th>
<th>entire recommended period (%)</th>
<th>start before conception* (%)</th>
<th>any part of recommended period (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 1994(^{1,2})</td>
<td>485</td>
<td>0.4</td>
<td>0.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Autumn 1995(^{2,3})</td>
<td>352</td>
<td>4.8</td>
<td>7.1</td>
<td>16.2</td>
</tr>
<tr>
<td>Campaign</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Autumn 1996(^{4})</td>
<td>350</td>
<td>14.9</td>
<td>18.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Autumn 1998</td>
<td>453</td>
<td>35.5</td>
<td>42.6</td>
<td>62.5</td>
</tr>
</tbody>
</table>

Role of the pharmacist

In two regions in The Netherlands (Northern-Netherlands and the ‘Randstad’), a random sample of 150 community pharmacists (response 72%) was sent a questionnaire with questions about their knowledge, attitude and behaviour regarding the use of folic acid by women of childbearing age. The results shows that the attitude of pharmacists towards the use of folic acid by women with the desire for a child is highly positive. Most of the pharmacist distribute folic acid brochures in their pharmacy and posters are on the walls to catch the attention of the women in question. Nearly thirty percent of the Dutch pharmacists informed their oral-contraceptive users by means of the following printed text on the box of the pills: "If you stop using the pill because of the desire for a child, please ask your pharmacist for information about the use of folic acid before you become pregnant". This is an excellent/outstanding opportunity to inform women about the preventive benefits of folic acid in case of pregnancy. The percentage of women who heard about folic acid from the pharmacist increased during the investigated years. Five percent in 1995 and 14% in 1998.

The role of community pharmacists in promoting the use of folic acid has also been explored in the UK. In 1997, the Health Education Authority (HEA) conducted a survey amongst health professionals to gauge their knowledge of the use of folic acid in pregnancy and the extent to which they had an opportunity to promote use of folic acid in the early months of pregnancy and pre-conception. The results showed that community pharmacists were well placed to promote the message, since on average, they reported seeing more women of childbearing age per month than other health professionals. Community pharmacists’ knowledge and understanding of folic acid use compared well with that of other health professionals. Subsequently, the HEA and the National Pharmaceutical Association piloted a service package to enable community pharmacists and their medicines counter assistants to make an informed contribution to the promotion of the use of folic acid in planned pregnancy. The use of an additional label on oral contraceptives seems to be unique to the Netherlands but could be adopted by pharmacists in other countries.

It is noteworthy that some pharmacists did not put stickers on oral contraceptives for women at either end of the age spectrum. These women could have an unplanned pregnancy and therefore need the information.
Younger women need to be educated from an early age about the importance of folic acid. Wild et al found in their survey of young women (aged 16-19) that 21 out of 150 were aware of the benefits of folic acid and more than half of this age group said that they had never heard of folic acid. This is one area where the pharmacists’ responses and current practice could be challenged.

The efforts of community pharmacists to provide women with information about the pre-conceptional intake of folic acid are only worthwhile if they lead to an increase in the percentage of women with an adequate intake of folic acid. There are no published empirical studies of the efficacy of the pharmacist’s information activities in this area.

The prime concern for the promotion of the pre-conceptional intake of extra folic acid is not so much to persuade women to take folic acid, but to provide information at the right time. The best time is shortly before the first attempt to conceive. If the pharmacist, whether by means of a label on the box of contraceptive pills or another appropriate communication strategy, can draw the attention of a woman at that time to the issue of folic acid and the health of the child, the chances are increased that the woman will use folic acid. We are currently involved in planning a study to optimize the communication strategy for community pharmacists’ interventions on folic acid and to measure its efficacy.

Conclusions

The percentage of pharmacists who inserted information in the contraceptive pill packages increased to 29 in 1998. Although information on the contraceptive packages seems an excellent opportunity to inform women about the preventive benefits of folic acid in case of pregnancy, orthant and can be improved. I think that there is a need to increase the proactivity of community pharmacists in information-giving about folic acid. Areas that were identified that need to be addressed are pharmacists’ own perceptions about which women should be targeted, and work to influence GPs’ opinions and/or increase pharmacists’ skills in persuading GPs of the value and appropriateness of the pharmacists’ input.

Literature

LTW de Jong-van den Berg, AH van der Zee, Evelyn Schaafsma, Denhard de Smit, C Anderson and MC Cornel. Counselling women about periconceptional use of folic acid: The role of the community pharmacist can be improved. Int J of Pharmacy Practice 1999;7:138-42.