Knowledge about folic acid and the prevention of neural tube defects in two general practice populations

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SUMMARY

Knowledge about the link between folic acid supplementation in pregnancy and the prevention of neural tube defects was assessed in women from two contrasting general practices using a questionnaire. The persisting lack of awareness, particularly in the more at-risk group from the inner city area, lends support to the argument in favour of the fortification of flour.

Keywords: pregnancy; folic acid; neural tube defects; questionnaire.

Introduction

ALTHOUGH the knowledge that folic acid supplements in pregnancy can prevent neural tube defects is not new, the debate on how best to implement this knowledge is still unresolved. Despite increased media attention and public health messages, there is evidence that this information is not reaching enough women.[1,2]

Method

During two separate one-month periods, a simple questionnaire was given to all women aged 15–40 years attending for GP appointments in two teaching practices, one in an inner city area (Aug 1995), the other in a suburban setting (Dec 1995). The questionnaire was approved by all the partners in each practice prior to its use. The main questions concerned knowledge about spina bifida, folic acid and the connection between the two. Respondents were also asked from which sources they had obtained their information. On returning the questionnaire, women were given a leaflet about healthy eating and folic acid supplements in pregnancy.

Results

Questionnaires were completed by 105 women in the inner city practice and 103 in the suburban one. Overall, fewer that half of the respondents were aware of a connection between folic acid and spina bifida; women in the suburban practice were consistently better informed (Table 1). In the multi-ethnic inner city practice, there were no major differences in knowledge between ethnic groups.

Magazines and newspapers were cited as the most common source of information in both practices (44% suburban and 50% inner city), and television and radio as the second most common in the suburban practice (30%) but not in the inner city one (8%). Health professionals were mentioned as a source of information by fewer than a third of (28% suburban and 25% inner city).

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In the inner city practice, pregnant women appeared to be no more aware of the link between folic acid and neural tube defects than non-pregnant women (26% of pregnant women versus 22% of non-pregnant women). In contrast, pregnant women were much better informed in the suburban practice (80% of pregnant women versus 38% of non-pregnant women knew of the link).

Discussion

The numbers in this study are small and this limits detailed comparison between the two practices. However, the message is clear — the level of knowledge about the preventive value of folic acid is unacceptably low in both groups. The lack of knowledge among pregnant women from the inner city practice is particularly concerning and demonstrates a failure of existing strategies to reach those most at risk.

Although media attention to this topic may be having some effect, with respondents in both practices citing this as their most common source of information, it does not seem to have raised awareness dramatically. Health professionals informing women prior to or in early pregnancy are also unlikely to reach enough women as many pregnancies are unplanned. In addition, women in deprived areas are less likely to attend for pre-pregnancy counselling.[3]

This small study contributes to the growing body of opinion that the fortification of flour (including chapati flour[4]) is the only policy likely to have sufficient impact. The Department of Health and Human Services in the United States has recently ordered that flour be fortified from January 1998.[5] The amount has been specified to provide a daily supplement of no more than 1 mg to the average diet: enough to prevent neural tube defects, but in

Table 1. Population characteristics and responses to the questionnaire regarding spina bifida and folic acid in two contrasting general practices.

		Suburban (n = 103)	Inner city (n = 105)
Age (years)	15–20	7	13
	21–25	9	32
	26–30	25	33
	31–35	26	18
	36–40	26	9
Ethnic group	Afro-caribbean	1	14
	Asian	0	18
	White European	98	68
	Other	4	5
Currently pregnant		13	27
Heard of spina bifida		99	94
Accurate description of spina bifida given		65	47
Knew of a link between spina bifida and folic acid		43	24
Correct explanation of link given		38	22

most cases insufficient to mask pernicious anaemia or cause significant problems with anticonvulsant control, which have been the most commonly voiced concerns in the past.[6] Fortification would not only ensure the greatest coverage of the population, but would also minimize inequity between women in different social groups.

References

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