

NUTRITION EDUCATION AS IT RELATES TO AUSTRALIAN PROBLEMS

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Paper presented to the Third Annual Conference of the H.E.T.G. of Victoria, 10 October, 1981.

An historical prospective of food habits and nutritional problems

In order to understand the current relevance to health of eating patterns in Australia, it is advantageous to have a knowledge of what used to be eaten, of the directional change of eating patterns, of the health problems as they were and the directional change in health problems.

Our knowledge of food intake patterns in Australia in the early years of European settlement is scant. Mostly, it comes from the literature of the day, public records of food purchase and distribution, newspaper and journal accounts of food and its use. In an effort to fill an important vacuum, we interviewed elderly Australians about their eating habits when they were children, about 1900 until the commencement of World War 1. In this way, and with cross checking with historical records, we reconstructed a typical menu for children living in Victoria at that time:

Daily menu of Australian children from 1900-1914

(B.H. Teow, D.M. Flint and M.L. Wahlqvist, 1980)

8.00 – 8.30 a.m.

- Oatmeal porridge with milk and sugar
- Toasted white bread and jam (plum or melon ginger)
- Cup of tea with milk and sugar or glass of milk

12.00 – 1.00 p.m.

- Cut lunch to school
- Buttered white bread with left over cold meat from roast – add salt and pepper
- Piece of fruit (apple or fruit in season)
- Piece of fruit cake or queen cake
- Mug of water from school tank (rain water)

2.20 – 4.00 p.m.

- White bread and jam
- Piece of fruit cake or biscuit
- Piece of fruit
- Glass of milk or water

5.30 – 6.00 p.m.

- On cold days – soup (shank stock, barley, root vegetables)
- Roast leg of lamb with gravy (dripping from roast, plain flour and water)
- Boiled carrot, cabbage, baked potato, add salt
- Jam roolly polly (suet crust with jam, boiled)
- Cup of tea

Although there may be limitations in the collection of such data, such as the reliability of recall for food intake data, this resource of oral history is one which we will not always have, one which does give us much more insight into our food culture and one which is useful as an instrument in nutrition education.

There is, too, an important resource in the information passed on from generation to generation of Aboriginal Australians about the bushfoods on which they survived. Aboriginal food culture is perhaps the longest continuous food culture existing for 30 to 40 thousand years. Largely ignored by the early European settlers, its relevance to survival in the Australian bush in times of peace and, possibly, in times of conflict is now better appreciated by both civilians and by the Department of Defence. Extensive food analysis is now on the way on Australian bushfoods.

When one examines the changing life expectancies at birth of Australians, one would gain a view that, if food has anything to do with health, then our food intake patterns must have improved. For life expectancy at birth has increased by about 10 years for men and

women since early this century. However, it must also be appreciated that populations of similar genetic stock such as those in Southern and Northern Europe, Greece and Sweden in particular, have a life expectancy at birth 3 or 4 years greater than that in Australia. The Japanese can expect to live longer than Australians. Thus, apparently, we have more to gain. This is not to say that food intake patterns are the only factors in the determination of life expectancy, nor that life expectancy is the only criterion of good health. What is much more difficult to measure is morbidity or ill-health whilst alive.

The nutritional problems

There are several important nutritionally related problems in Australia for which one can develop 'nutritional risk factor profiles'. Examples would be:

1. Obesity
 - a. Family history of obesity
 - b. Lower socioeconomic group
 - c. Recent change in circumstances (marriage, purchase of car, etc.)
 - d. Sedentary lifestyle
 - e. Preference for energy-dense foods
 - f. Alcohol abuse
 - g. Need for oral satisfaction of psychological needs
 - h. Low self-esteem
2. Atherosclerotic Vascular Disease
 - a. Excess energy intake
 - b. Preference for foods with a high saturated fat and/or cholesterol content
 - c. Preference for sodium
 - d. Relative lack of dietary fibre-rich foods
 - e. Elevated serum cholesterol and triglycerides and low serum high density lipoprotein
 - f. Hypertension
3. Neoplastic disease (especially colorectal, breast, uterus and respiratory tract)
 - a. Excess energy intake
 - b. Preference for fat of animal origin
 - c. Low intake of vegetables, wholegrain cereals and fruits
 - d. Alcohol abuse
4. Non-insulin dependent diabetes mellitus
 - a. Excess energy intake
 - b. Avoidance of vegetables, wholegrain cereals and fruits
 - c. Alcohol abuse

5. Upper gastrointestinal haemorrhage
 - a. Alcohol abuse
6. Joint disease
 - a. Excess energy intake with consequent obesity
 - b. Alcohol abuse with consequent hyperuricaemia
7. Urinary calculi
 - a. Inadequate water intake
 - b. Alcohol abuse
 - c. High purine intake
 - d. Excessive ascorbic acid intake
8. Dental caries
 - a. Sucrose abuse
 - b. Snacking
9. Food sensitivity
 - a. Individual sensitivity

The importance of these several nutritionally related problems is that they contribute to premature death. The question then arises, of course, as to what extent advice should be given to the public at large to avoid premature death in a minority. This is a dilemma confronting those who formulate national nutrition policy, part of which is the development of dietary guidelines such as those developed by the Australian working party of the Australian Association of Dietitians of which I was a member:

1. Eat a variety of foods each day
2. Encourage breast feeding
3. Prevent and control obesity
4. Decrease total fat intake
5. Decrease consumption of sucrose
6. Limit alcohol consumption
7. Increase consumption of breads, cereals, fruits and vegetables
8. Reduce sodium intake
9. Encourage water intake

By and large the nutritional risk factor profiles and the Australian dietary guidelines address those problems which are usually regarded as characteristic of affluent society. However, there are those who are at risk from specific nutrient deficiencies in Australia:

1. Particular age groups (women in reproductive age, elderly)
2. Domestic circumstances (single persons, single parents, institutionalised persons)
3. Life style problems (physically inactive, alcohol abusers, cigarette smokers)
4. Socioeconomically disadvantaged (limited education, Aborigines)

5. Iatrogenic (medication, surgery)
6. Other medical problems (obesity, wasting diseases)
7. Food faddism

The nutrient deficiencies to which Australians are subject include the vitamins folacin, thiamin and ascorbic acid, the minerals iron and zinc, dietary fibre and water. For optimal health, a greater intake of carotenoids and of essential fatty acids (both w6 and w3 series) is probably desirable.

It has recently been estimated that at least 1 million Australians are below the poverty line as defined by Professor Henderson. Reports appear in the press and anecdotes are told of how increasing numbers of Australians, particularly the homeless young, are once again subject to periods of hunger and starvation as was experienced during the years of the Great Depression. An example would be the report in 'The Age' of 24 October 1980 in which a 20-year old man was said to have a good meal only twice a week and this, partly because of the provision of food by welfare workers. There were times when he did not eat for 3 or 4 days.

Target groups for education

If we wish to multiply the nutrition education effort, then the first priority must be to teach the educator. For our part in the Department of Human Nutrition at Deakin University, we welcome the contact with Home Economics teachers for this reason and we are developing a Graduate Diploma in Human Nutrition which will be available to professionals in a number of areas. These would include teachers of Home Economics, physical educators, medical practitioners, pharmacists, nurses and other health professionals.

Clearly, nutrition education needs to be developed in the school system as far back as possible, including pre-school education, primary education, secondary education and tertiary education. Australia's first two chairs of Human Nutrition were occupied in early 1978 at Sydney University and at Deakin University.

One suspects, nevertheless, that the most

pervasive instrument of nutrition education in the community is the media, both the print media and the electronic media. The vehicle of education might be food or beverage advertisement, documentary or news item. There is an urgent need for trained nutritionists to engage with the media.

Most of us, however, acquire our information about food and nutrition from our peers and we, as nutritionists, must set adrift good and reliable nutrition information which will disseminate through the community.

Nutrition resources

One of the more important developments on the Australian scene has been the advent of the Australian Nutrition Foundation. Although it was intended to be primarily a national venture, it has developed along federal lines as most other systems in Australia are inclined to do. The Victorian division is particularly active and has its head quarters at the Baker Medical Research Institute in the grounds of the Alfred Hospital. It has a recorded telephone nutrition advice service which can be dialled on (03) 520 2197. It is developing an increasing array of nutrition resource brochures and pamphlets.

Another important development for Victoria in the nutrition education area was Project MUNCH (Materials for Understanding Nutrition and Community Health). The MUNCH team included several home economics educators associated with Rusden Centre for Studies in the Curriculum, and this Project undoubtedly assisted nutrition education in primary schools.

The two university Human Nutrition groups also now provide a critical commentary on nutrition matters with which the media and others must reckon. The vast array of 'pop' nutrition books written by all sorts of instant experts is now also being eroded by more reliable works.

The Australian community has, on previous occasions, shown itself wanting to identify reliable sources of information in the health area. It is beginning to do so and, certainly, nutrition is very much on its mind.

FURTHER READING

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