Practical Aspects of Nutrition of the Elderly at Home

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Of the 10 million elderly men and women in the United Kingdom, more than 95% live at home, mostly on their own or with one other person (1). Similarly, in most other countries, developed and developing, the vast majority of old people live in the community. Some manage without undue assistance, others rely on the care of family or support services.

DEFINITION OF ELDERLY

In the United Kingdom the term “elderly” is applied to “persons of pensionable age”: women 60 years and over, men 65 years and over. In order to make practical nutritional recommendations there may be advantages in studying the “young old” as a separate group from the “old old,” or making a distinction between those who remain independent and those who have become dependent on others (this would be applicable in all countries, whatever the life expectancy).

DIETARY PATTERN

The dietary pattern in the majority of old people remains similar to that established by habits at a younger age and their nutritional status continues to be adequate even in extreme old age (2). Some survive to become “elderly elite”; however, a study in Great Britain reported that malnutrition is likely to be twice as common in the over 80s as in those elderly people under 80 years of age (3). Because of increasing numbers of “old old,” there are likely to be greater demands on the already overstretched social and medical services.

THE ROLE OF PRACTICAL NUTRITION

Practical nutrition for the elderly at home seeks to influence or endorse their food choice in order to help them to achieve and maintain well-being with increasing life
expectancy. It has a role in the prevention of malnutrition, in preference to crisis treatment.

TYPES OF MALNUTRITION

Four distinct, but sometimes interrelated, types of malnutrition have been described: specific, sudden, recurrent, and long-standing malnutrition. Each calls for training in recognition and prevention by medical and paramedical personnel, and by care providers, including neighbors and relations (4).

RISK FACTORS

Many studies have identified elderly groups nutritionally at risk of malnutrition through medical, psychological, or socio-economic conditions (5–15). The housebound are one such at-risk group. However, not all housebound people are malnourished, although they might be if, for example, there are circumstances (warning signals) such as insufficient food stores at home or loneliness or observed depression leading to impaired appetite (see Table 1).

WARNING SIGNALS

The concept of observable warning signals has led to the suggestion of a community-based approach to the prevention of malnutrition: care providers in touch with elderly men and women can be taught early recognition of warning signals applicable to their community, and practical steps for simple intervention (16).

Intervention may be simple and inexpensive, for example, help with the shopping, or it may highlight the need for referral for medical or paramedical services, or the

<table>
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<tr>
<th>TABLE 1. Examples of observable warning signals</th>
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<tr>
<td>Recent unintended weight change ±3 kg</td>
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<td>Physical disability affecting food shopping, preparation, or intake</td>
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<td>Lack of sunlight</td>
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<td>Bereavement and/or observed depression/loneliness</td>
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<td>Mental confusion affecting eating</td>
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<td>High alcohol consumption</td>
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<td>Polypharmacy/long-term medication</td>
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<td>Missed meals/snacks/fluids</td>
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<td>Food wastage/rejection</td>
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<td>Insufficient food stores at home</td>
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<tr>
<td>Lack of fruits/juices/vegetables</td>
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<td>Low budget for food</td>
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<td>Poor nutritional knowledge</td>
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urgency for introduction to a total package of care, including meals programs or other community services.

**PRACTICAL NUTRITION FOR THE “YOUNG OLD”**

Prevention of malnutrition in elderly people begins with the “young old” and dietary guidelines have taken their rightful place in the forefront of preventive medicine. Despite this, investigations on men and women around the time of retirement from work have revealed, for example, fat intakes markedly higher than current recommendations (17). At retirement, there is motivation to maintain health and independence, but this is hampered by confusion with the multiplicity of messages and lack of guidance from the medical profession (18), as indicated in Table 2. Nutritional guidance is needed for conditions that could interfere with preparation and enjoyment of food; these include increasingly reported joint and muscle pains, impaired hearing, anxieties, depression and stress, lack of exercise, dependence on medication, and smoking. Unfortunately, practical nutrition rarely forms a part of medical training. This stresses the importance of the dietitian.

Perhaps the most important message practical nutrition can give to the “young old” is one of moderation.

**PRACTICAL NUTRITION FOR THE “OLD OLD”**

For the “old old” remaining relatively healthy and independent at home, the question that needs to be asked is not “can we alter food habits?,” but rather “should we?”. By the time men and women have survived to advanced old age, the dietary risks are lessened. Lowering salt and sugar reduces palatability, and restricting fat reduces energy and nutrient intakes and diminishes palatability. For elderly individuals, it is important to keep up the enjoyment of food and not to be overrestrictive.

**NUTRITIONAL COUNSELING**

Counseling may be needed on, for example, obesity, exercise, sunlight, drug–nutrient interactions, supplements versus foods, dietary fiber, and fluids. Practical
advice can reach elderly men and women through specialized cookbooks, shopping checklists, talks and demonstrations in clubs, retirement cookery classes, and informative, entertaining programs on radio and television.

CONTRIBUTION BY THE FOOD INDUSTRY

It is not true that "the elderly are set in their ways and will not try new foods." Food manufacturers and shopkeepers—and nutrition educators—would do well to note the major influences on change in food choice among elderly men and women: health, taste, convenience, price, and availability in small portions (19).

The food industry can assist this choice by producing enjoyable, nourishing, easy to prepare foods; easy to open and store; available in small sizes at reasonable cost; a changing variety of small packs of nutritious instant and convenience foods. Foods need to be nutrient-dense, especially for those with diminished appetite, giving maximum nourishment and maximum safety with minimum effort. They also need to take into account maximum acceptability in flavor, texture, aroma, and appearance.

PRACTICAL NUTRITION FOR THE FRAIL ELDERLY

Without adequate nutritional and social support, old people may need to be placed too early into total care. With adequate nutrition, they may achieve a greater resistance to disease and speedier recovery from illness. Negative stereotypes need to be questioned, for example, "they eat less as they grow older"; "they need soft/pureed foods because they cannot chew"; "they need dietary supplements." These may apply to some, but certainly not to all.

PRACTICAL NUTRITION FOR AND FROM THE CARE PROVIDERS

It may be necessary to provide old people with extra help for shopping and food preparation; for some, assistive feeding equipment and adaptations to the kitchen can encourage self-help.

It is advisable to provide nutritional guidance not only to the old people themselves but also to those who may be caring for them in the community. This may include recipe guidance for those providing meals at home, delivered meals, or meals at clubs or day hospitals.

MEALS PROGRAMS

Meals programs need to be seen in the context of the total diet. In the United Kingdom there have been imaginative alternatives suggested to meals on wheels, for example, small freezers, microwaves or steamers provided in the client's home, and suitable meals delivered in batches so that they can be chosen and cooked at
the time most desired by the old person. Food policies have been established. Their aim is to provide food within a prescribed budget that is nutritionally sound, safe to eat, looks attractive, tastes good, and is enjoyed by the clients. Enjoyment of food is paramount (20).

It must be remembered that food that is not eaten is not nourishing.

REFERENCES

1. Population figures. Sources: Office of Population Censuses and Surveys; General Register Office (Scotland); General Register Office (Northern Ireland).
20. Davies L. Opportunities for better health in the elderly through mass catering. A document of the Nutrition Unit, World Health Organization, Regional Office for Europe, Copenhagen, Denmark (in press).

DISCUSSION

Dr. Meredith: How do you deal with fadism in the older age group? I have seen people who put soy protein powder on everything because they think they are protein deficient.

Dr. Davies: This is where the medical profession can help enormously. People have food beliefs that sometimes don’t matter, but sometimes they do, and what the doctor says is
usually believed. The doctor should provide an opportunity for discussing diet and food beliefs.

Dr. Vellas: One characteristic of elderly people is that weight lost after stress is often not regained. How do you explain this?

Dr. Davies: Failure to regain weight loss could of course be due to disease. It could also be due to factors such as loneliness, which may inhibit eating. This is where our warning signal concept is useful. One of the warning signals is weight change. This should trigger an investigation into possible social or disease factors.

Dr. Vellas: I should like to make a comment on malnutrition in the elderly based on the Aging Process Study in New Mexico. This is a longitudinal study of 200 elderly people in good health. Between 1980, when the mean age was 72 years, and 1990 there has been no decrease in average weight in this population nor in arm circumference. There has been a small increase in serum albumin. Thus, the aging process alone is not a cause of malnutrition in this population. There are three patterns of malnutrition in this age group. First, there is disease such as malignancy or Alzheimer’s disease; then there is acute disease such as a stroke or a fracture; and finally there is malnutrition associated with the normal aging process. In order to prevent malnutrition in the elderly population it is very important to measure weight and to do diagnostic investigations if there is weight loss. The earlier a problem is recognized, the more chance there will be of sorting it out and preventing the development of serious malnutrition.

Dr. Guesry: For a company like ours, it is tempting to develop products for the elderly specially adapted to their needs in terms of taste, texture, packaging, nutritional content, and so on. The big problem is that the elderly don’t want to be told they are old, so I think such products are likely to remain on the shelves. What is your view of this marketing problem?

Dr. Davies: I faced this some years ago when I wrote a book called Easy Cooking for One or Two. There was no mention of the elderly in the title for precisely this reason, but I deliberately chose foods that I knew old people like and I made them as nourishing and tempting as possible, and in small quantities because a lot of old people do not want to buy food and waste it. What I think is needed is nice flavor and suitably small packaging. I have tasted many of the foods put on the market for the elderly and there is no way I should want to continue to eat them! If you were to produce nourishing, good tasting food in small quantities, I think the problem would be solved.

Dr. Steen: How do you think the responsibility for old people should be divided between the various agencies?

Dr. Davies: In the first place, it is clear that a majority of old people would prefer to look after themselves with the help of relatives, friends, and neighbors. This is not always possible and there are cases where the social services have to be involved. But there should not be a lot of government officials making independent inquiries. It is far preferable to have one care worker, with access to the provision of a variety of services, responsible for evaluating the needs and wishes of the old person. What is happening in Britain at the moment is that, because of limited funds and services, there has been a devolution of responsibility away from social services and into the private sector. This has advantages but it also has dangers, particularly from the point of view of cost for old people.

Dr. Steen: The reason I asked my question was that I am concerned that some countries pay more attention to the needs of healthy elderly people than they do to providing diagnosis, therapy, and rehabilitation for really ill people.

Dr. Davies: Of course, diagnosis, therapy, and rehabilitation are important, but by paying attention to the needs of healthy elderly people (including their socio-economic and psycho-
logical needs), we can often provide sufficient support, including incentive for self-help, to prevent the health crisis. I think what you are talking about is balance of provision, so that limited resources are not squandered. As I implied in my previous answer, holistic assessment (for therapeutic and social goals) is essential to ensure that provision of service is targeted to individual needs. Without this assessment there is the risk of providing some people with more help than they need while denying others sufficient help. Holistic assessment of old people in whom subclinical malnutrition might be prevented must surely be preferable to crisis treatment, both in human and financial terms.

Dr. Schiffman: What are your thoughts about texture preferences of older people? How much energy are they willing to put into chewing and crunching? Do they like grainy foods or crunchy foods? What is your impression of the British population?

Dr. Davies: Most old people like food to have texture. In fact, it is observed that, when offered attractive food that is difficult to chew, they will often remove their dentures and masticate the food with their hard gums. However, they are inclined to avoid food that works its way painfully under dentures, or that may cause choking, for example, fruits with pips and fish with small bones. A pureed diet should be offered only for short-term necessity, with re-evaluation for a return as soon as possible to food with texture. In rehabilitation it is important for people to be encouraged to use their chewing ability.