Food for thought

There is mounting evidence that mental ill health may be linked to our changing diet, says **Courtney Van de Weyer**

The rise in obesity is very much on the public and political agenda. Too many people eating too much unhealthy food, while exercising too little, is leading to a big rise in the number of individuals, many of them children, whose weight far exceeds what is healthy. And in turn, these unhealthy lifestyles are contributing to the increase in diseases such as diabetes and diet-related cancers.

Exercise is important, but it is really the recent changes in the amount and type of food we eat that is the root cause of these dramatic changes in the pattern of disease.

Although they don't receive as much attention, mental health and behavioural problems are also on the rise, and are an equally serious public health concern. One in four people is likely to experience a mental illness at some point in their life, and mental ill health is now the leading cause of disability among working age adults. The costs of mental ill health to the UK economy are approaching £100bn a year.

Mental health problems are thought to be the result of a combination of biological, psychological and social factors. Of the biological factors, one of the most obvious, yet under-recognised, is the role of nutrition.

Just like the other organs of the body, the brain is affected by what we eat and drink. Both its physical structure and its functioning are highly dependent on receiving the correct range and ratio of vital nutrients, beginning at conception and continuing throughout life. If the brain does not receive adequate nutrition, and therefore cannot function correctly, it seems likely that this could result in mental health problems.

Enormous upheavals in the food and farming system have occurred alongside the global rise in mental health and behavioural problems. The industrialisation of farming, the rise of processed foods, the pervasiveness of food advertising, and global food policies unconcerned with health have all contributed to the population eating a diet which is radically different to that of 50 years ago. One possibility is that the change in our diet is partly responsible for the increase in mental health problems.

Indeed, there is now a growing body of scientific research which confirms that there is a connection between what we eat and the way we think, feel or behave. The evidence suggests that our diet may affect not simply day-to-day changes in mood, but also the risk of developing mental illness or behavioural problems. Conditions such as depression, schizophrenia, attention deficit hyperactivity disorder and dementia have all been researched.

Taken together, the research suggests that—as with physical health problems—too many people eating the wrong kind of food may be a significant factor in the rise of mental and behavioural problems. And, although the evidence does not suggest that mental health conditions can be cured by diet alone, it does seem possible that an improved diet could relieve some of the symptoms, improve the effectiveness of medication or reduce the side effects of some medications.

Pulling the evidence together, what is perhaps most striking is the wide range of nutrients that appear to be important for brain and mental health, all working in combination to provide what the brain needs to develop and function effectively. There is no 'magic bullet' (regardless of the current excitement and heavy marketing of omega-3).

Just like physical health, dietary benefits for the mind result from the consumption of a varied and balanced diet based largely on complex carbohydrates, essential fats, high quality protein and food rich in micronutrients. In other words, a diet rich in fruits and vegetables, wholegrain cereals, pulses, nuts and seeds and occasional lean meats and oily fish.

Unfortunately, this is precisely the diet that majority of the population do not eat. Most people do not achieve even the most basic of dietary

goals, such as consuming five portions of fruits and vegetables a day, eating two portions of fish a week or basing most of their meals on complex carbohydrates from wholegrain sources. Many factors affect people's food choices, including lack of information and education; highly effective marketing of unhealthy foods; cost and availability of healthy options; unhealthy ingredients in everyday processed foods; and low-quality catering in schools, hospitals and prisons.

And evidence is growing that even if healthy diets were more widely adopted, food may be of lower nutritional value than in the past, because of new agricultural methods and long storage times. Micronutrients and certain essential fats are just some of the food components that may have declined in many important foods due to production methods—yet these are the very types of nutrients that may be the most important for mental health.

"It is astonishing that health service managers are not more interested in the links between diet and mental health"

Although the scientific evidence is growing, there is still a good deal of resistance to the idea that food affects mental health. The official attitude from relevant government departments and the established medical community is that there is either no evidence of a connection, or that more evidence is necessary before dietary improvements are recommended in mental health treatment.

This is patently absurd. Not only is there plenty of evidence to suggest a link between diet and mental health, but there is no disadvantage in supporting the adoption of better diets. For those suffering mental health problems, who commonly suffer from poor dietary-related physical health (such as coronary heart disease or diabetes) as well, it is arguably negligent to not provide dietary advice.

Calls for 'more research' can go on forever since science rarely, if ever, provides certainty. There are still trials testing the role of diet in heart disease. Yet what doctor would not recommend dietary changes when faced with a patient with heart disease?

Considering the high costs of drug treatment and long waiting lists for talking therapies, it is astonishing that health service managers are not more interested in the links between diet and mental health. Not only could better diets improve mental health and make treatments more effective, but physical health will also improve, relieving even more pressure on the health service.

And a new emphasis on improving diet for mental health could also provide what many mental health service users want, but don't often get—greater control over their own treatment.

Work to improve the nation's diet is becoming urgent as the costs of diet-related poor health grow. But it is still too little and, unfortunately for many, too late. Issues such as junk food advertising, poor quality public sector catering, the inclusion of damaging ingredients (such as *trans*-fats and additives) in processed foods and the worrying effects of industrialised farming are all leading to real problems for the nation's health.

Not only are the causes clear, but so are many of the solutions. The question is how much longer will we have to wait before effective action is taken?

Courtney Van de Weyer is food and mental health project officer at Sustain: the alliance for better food and farming.

Changing Diets, Changing Minds: how food affects mental well being and behaviour **is available from Sustain. www.sustainweb.org, or call 020 7837 1228.**

How has our diet changed?

- **In the past 60 years there has been a 34 per cent decline in UK vegetable consumption. Only 13 per cent of men and 15 per cent of woman currently eat their 'five-a-day'**
- **Fish consumption has fallen by 59 per cent since the second world war**
- **The commercial pressing of soybeans for oil to be added to processed foods has led to a thousand-fold increase in intake. Soya oil contains high levels of omega-6 fatty acids, which compete with the benefits of omega-3**
- **Processed foods have introduced a new and dangerous form of fat into the food supply. *Trans*-fats, which allow foods to have a long shelf life, have no nutritional benefit, yet are much unhealthier than saturated fats**
- **The average person in the UK will ingest over 4kg of additives every year—which have not been tested for effects on behaviour or assessed in combination with other additives**
- **Meat consumption has risen dramatically at the same time that farming methods have changed its nutritional profile. Intensively reared animals (including chicken, beef and fish) are higher in fat than those that are traditionally reared**

What does the science say?

- **In controlled trials, an essential fatty acid (normally found in breast milk) added to infant formula milk improved cognitive abilities at 18 months and at three years**
- **Removal of certain foods from the diets of children with attention deficit led to an improvement in symptoms. The reintroduction of the same foods led to relapse**
- **A controlled study in a young offenders' institution found that anti-social behaviour fell among those who received dietary supplements**
- **Countries with low fish consumption seem to have a relatively higher prevalence of major depression, bipolar disorder, postpartum depression and seasonal affective disorder**
- **Several controlled trials have shown benefits when levels of folate, zinc and certain essential fatty acids are increased in the diets of patients with depression**
- **Long term epidemiological studies have linked a lifetime of a healthy diet to a decreased risk of Alzheimer's disease. Low levels of saturated fats and high levels of fruits and vegetables have been shown to greatly benefit the ageing brain**