

Nursing in Practice

22 – 23rd September 2009, Business Design Centre, London
www.nursinginpractice.com WCRF UK will be exhibiting at this event

National Obesity Forum Conference – Obesity: Time to Get Serious!

5 – 6th October 2009, Royal College of Physicians, London
www.nationalobesityforum.org.uk

Health and Wellbeing in Education

10 – 11th November 2009, NEC, Birmingham
www.healthwellbeingeducation.co.uk WCRF UK will be speaking and exhibiting

10th National Nutrition & Health Conference

12 – 13th November 2009, Olympia Conference Centre, London
www.nutritionandhealth.co.uk

For more information on upcoming conferences visit www.wcrf-uk.org/conferences

Results from front-of-pack labelling research

Research into the most effective front-of-pack (FOP) nutrition labelling has been recently published by the Food Standards Agency (FSA) [1]. The research, a mix of qualitative, quantitative and observational work, offers a comprehensive picture of the ability of shoppers to use different labelling schemes.

The results show that the levels of comprehension of different FOP labels are generally high, but the coexistence of different FOP formats in the marketplace causes confusion among consumers. Some sectors of the population, such as older people and those with lower levels of education, had more difficulty interpreting labels, independent of the type of FOP scheme.

Researchers tested how well consumers evaluated overall healthiness and levels of individual nutrients of a product and how well they compared two products. Overall the best labelling option was combining text (the words high, medium, low), traffic light colours (both indicating nutrients levels in 100g of product), and %GDA, which gives the amount of nutrients in a portion as a percentage of guideline daily amount. Different shoppers preferred different labelling methods, so inclusion of all the options allows consumers to choose their preferred one. The Agency will now look at how to take this FOP labelling scheme forward and how to standardise all UK schemes to this format.

In a recent pan-European study [2] on consumer understanding and use of nutrition information on food labels, UK respondents demonstrated the highest level of nutritional knowledge. However, many consumers thought that a red colour on the traffic light label meant 'avoid' rather than 'eat less'. UK consumers also spent more time reading labels and were most concerned about levels of salt in food.

References

1. Food Standards Agency, 2009 [online]. Available from: <http://www.food.gov.uk/news/newsarchive/2009/may/fsaresponse>
2. EUFIC forum 2009 [online]. Available from: <http://www.eufic.org/upl/1/default/doc/Pan-Euro%20summary.pdf>

Reducing weight gain may improve breast cancer survival

Reducing weight gain after a diagnosis of breast cancer may improve survival, a new, large US study [1] suggests.

The study examined the impact of post-diagnosis weight change on survival using data from the Collaborative Women's Longevity Study, a cohort of 3,993 women with an age range of 20 to 79 years and a diagnosis of invasive non-metastatic breast cancer.

Participants received structured telephone interviews one to two years after diagnosis and a follow-up questionnaire by mail. After an average 6.3 years of follow-up, the researchers registered 421 deaths among the participants, of which 121 were from breast cancer.

There was a statistically significant positive association between post-diagnosis weight gain and Body Mass Index (BMI)



and breast cancer death. Obese women were more than two times more likely to die from breast cancer than healthy-weight

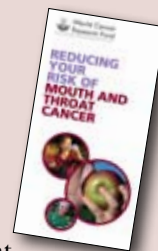
women. Among women who gained weight after breast cancer diagnosis, each 5kg gain was associated with a 13 per cent increase in breast cancer death. Extreme weight loss (around 10kg) was associated with higher all-cause mortality, but not with breast cancer-specific mortality.

WCRF UK [2] recommends that cancer survivors follow the same recommendations as the general public, which include keeping a healthy weight. For complete guidance on diet and physical activity for cancer survivors see our *Eating Well and Being Active Following Cancer Treatment* booklet. Go to www.wcrf-uk.org/health-professionals to download the booklet plus our new free *Guide to Supporting Cancer Survivors*.

References

1. Nichols HB et al. 2009 *Cancer Epidemiol Biomarkers Prev* 18(5):1403-9
2. WCRF/AICR. *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective*. Washington DC: AICR, 2007

Reducing Your Risk of Mouth and Throat Cancer



This leaflet helps you and your patients understand and prevent mouth and throat cancer, which is closely linked to diet and lifestyle. To request a free copy, see the reverse of our Publications Catalogue.

Check our Publications Catalogue to order this and other publications

Visit our health professionals web section at www.wcrf-uk.org/health-professionals

to access more news, statistics and resources on diet, physical activity and cancer prevention

NEW! on the website



Free downloadable meal planners and food diaries!



Free cancer survivors factsheet

Please circulate this newsletter to colleagues to help us spread the message that cancer is a largely preventable disease.

Informed is available free of charge to all health professionals.

How to join the mailing list

Please contact WCRF UK by emailing informed@wcrf.org

World Cancer Research Fund (WCRF UK)

19 Harley Street, London W1G 9QJ
Tel: 020 7343 4200 Fax: 020 7343 4201
Web: www.wcrf-uk.org Email: wcrf@wcrf.org

Registered with the Charity Commission in England and Wales (Registered Charity No: 1000739)
Registered Office: 19 Harley Street, London W1G 9QJ
WCRF UK is part of the WCRF global network.

Editorial committee

Chief Executive: Marilyn Gentry
General Manager: Teresa Nightingale
Head of Education: Lisa Cooney
Deputy Head of Education: Kate Morley
Health Professionals Publications Manager: Silvia Pastorino
Education Programmes Co-ordinator: Nathalie Winn

Newsletter copy reviewers

Dr Eleanor Carlson, Dr Frances Williams, Iona Lidington RD, Jane de Burgh, Paul Rumsby PhD, Dr Chris Stray, Dr Jason Jones, Keng-Gah Tham, June Parris and members of WCRF Science Team and WCRF UK's Executive Committee.

Design and production

Joost Lafèbre and Sabrina Maestri



World Cancer
Research Fund

FOR HEALTH PROFESSIONALS Informed

News on diet, lifestyle and cancer prevention

Effective health behaviour change strategies

Promoting behaviour change would be a cost-effective way to reduce chronic diseases. But how can psychological theories be effectively translated into actual behaviour change on an individual and population level? Which techniques really work?



There is strong evidence that changing people's health behaviour has the potential to decrease some of the largest causes of mortality and disability, such as heart disease and cancer [1]. WCRF UK estimates that unhealthy behaviours such as having a poor diet, being inactive and being overweight are responsible for about a third of the most common cancers in developed countries [2].

Despite the benefits of empowering people to change their health behaviour, effective interventions are lacking. According to the National Institute for Health and Clinical Excellence (NICE), the limited success of interventions may be due to their failure to take into account theories and principles underlying health behaviours [1].

Presently, no strategic approach to health behaviour change exists in the UK. Various models, methods and theories are being used in uncoordinated ways [1], and this makes it more difficult for health professionals to focus on evidence-based strategies.

Problems and solutions

Health behaviour is influenced by numerous variables, including physiological, psychological, emotional, socio-economic and environmental factors. This makes targeted research difficult. There also appears to be a disconnection between academics who develop psychological behaviour change theories and health professionals who implement interventions in the community [3]. According to Mark Conner, Professor of Applied Social Psychology at Leeds University, interventions have so far largely been unsuccessful because they involve too many psychological theories and tend to focus on what behaviour to change, rather than how to change it.

At the 2009 'Promoting Behaviour Change' conference organised by the Association for the Study of Obesity

(ASO) in Leeds, Professor Conner proposed some possible solutions.

Identifying specific variables related to behaviour change, such as social pressures, emotions, attitudes, norms and self-efficacy (an individual's belief in their ability to change), and key 'active ingredients' of behaviour change interventions, is necessary to understand what works and why [4].

Also, greater emphasis needs to be placed on theories aiming to change determinants of behaviour. Different groups and individuals will respond to different interventions so tailoring strategies is also a vital consideration.

Which techniques really work?

Two recent reviews [4, 5] have looked at the effectiveness of different techniques in promoting healthy behaviours.

Self-monitoring, used in addition to at least one other self-regulatory technique, was most consistently associated with successful outcomes.

Self-monitoring relies on patients keeping a record of specified behaviours by, for example, keeping a food diary or filling in a questionnaire. The four most effective self-regulatory techniques were:

◆ **Intention formation:** involves the patient setting a general goal or making a behavioural resolution, such as: "I will take more exercise next week."

◆ **Specific goal setting:** involves detailed planning of what the patient will do. It should include at least one specific attribute like frequency or duration and one 'context' such as where, when or how. For example: "I will run for 20 minutes twice a week after work."

◆ **Review of behavioural goals:** involves reconsideration of previously set goals or intentions.

◆ **Feedback on performance:** involves commenting on how well or badly a person has performed an action.

More information on these and other techniques is available on www.interventiondesign.co.uk, a website dedicated to improving the design and reporting of behaviour change interventions.

NICE guidance for health professionals

Current NICE behaviour change guidelines [1] are based on evidence of effectiveness, theory, fieldwork data and stakeholders' feedback. NICE advises to use interventions that motivate and support people to feel positive about the benefit of changing their behaviour. It suggests planning change in terms of easy steps and helping people set, record and share goals to make a personal commitment to change. It also stresses the importance of the social context and suggests planning coping strategies to prevent relapse.

In the absence of policies to reduce detrimental socio-economic influences on health, promoting behaviour change could represent a cost-effective way to reduce chronic diseases. Currently, there is no conclusive evidence that one technique is better than another. However, self-monitoring and goal setting seem to have been most successful so far. Also, motivational and supportive techniques that help individuals adopt positive attitudes toward health behaviour change are recommended.

References

1. NICE public health guidance 6, 2007. Behaviour change at population, community and individual levels
2. WCRF/AICR. *Policy and Action for Cancer Prevention. Food, Nutrition, and Physical Activity: a Global Perspective*. Washington DC: AICR, 2009
3. Barker M & Swift JA 2009 *Proc Nutr Soc* 68:205-209
4. Webb TL & Sheeran P 2008 *Br J Soc Psychol* 47:373-395
5. Michie S et al (In Press) 2008 [online]. Available from: www.interventiondesign.co.uk/wp-content/uploads/2008/09/abraham-et-al-2.pdf

Free downloadable meal planners
and food diaries available at
www.wcrf-uk.org/health-professionals

"Stopping cancer before it starts"

Increasing mouth cancer awareness

This year, Mouth Cancer Action Week has been extended to a full month in November. According to the awareness event's official website [1], about 5,000 new cases are diagnosed in the UK every year. Rates have increased by 17 per cent in the last four years and rates in men are twice those in women.

Risk factors

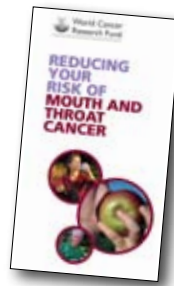
Smoking and drinking alcohol are two of the most important risk factors, and the risk is multiplied for people who both drink and smoke [2, 3]. New preventability estimates, calculated for the WCRF/AICR Policy Report, show that by not drinking alcohol about 41 per cent of cases of mouth, larynx and pharynx cancers could be prevented [4]. By stopping smoking and/or reducing their alcohol intake people can substantially reduce their risk of mouth and throat cancer [3].

Evidence also shows that eating a diet rich in vegetables and fruits could probably help prevent mouth cancer [2]. Vegetables and fruits are rich in

antioxidants and other phytochemicals that may help prevent cell damage.

The Mouth Cancer Action Month in November is a good opportunity for health professionals to make people aware of the risk factors for mouth cancer and explain that, by making simple changes to their lifestyle, the risk of this cancer can be substantially reduced.

Our leaflet *Reducing Your Risk of Mouth and Throat Cancer* gives information on who is at risk, the key risk factors and the symptoms to look out for. For more information see the Publications Catalogue.



References

1. www.mouthcancer.org
2. WCRF/AICR. *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective*. Washington DC: AICR, 2007
3. Pelucchi C 2008 *Eur J Cancer Prev* 17(4):340-4
4. WCRF/AICR. *Policy and Action for Cancer Prevention. Food, Nutrition, and Physical Activity: a Global Perspective*. Washington DC: AICR, 2009

Effective obesity management

Many dietary interventions are designed to change and reduce the amount of food people consume. Although often successful in the short-term, most interventions don't lead to long-term weight loss.

Jane Ogden, Professor of Health Psychology at the University of Surrey, has focused her research on evaluating the factors affecting long-term weight management. Here we give an overview of her work on the psychology of eating [1] and her top advice on how to manage obesity [2].

Why we eat

People eat for many reasons, including biological, social and cultural ones. Food also plays a role in our emotional life; we might eat because we are bored, for comfort or pleasure, and sometimes we use food to communicate how we feel to others and ourselves. Eating is also a habit learned during childhood and modelled on familiar behaviours; with time, eating habits become natural and we don't have to think about them. Essentially we eat because at the time the immediate benefits of eating seem to outweigh the negative effects of overeating. Any attempt to change dietary behaviours should take into account all these factors.

Why dietary interventions don't work

Most dietary interventions involve restricting a person's food intake. Often these interventions try to change habits that have been well established since childhood, which are difficult to change in the long term. Because many people use food to express emotions and to interact with others, restricting their food choices also affects their emotional and

social life. Another pitfall of most diets is forbidding certain foods, which are seen as 'bad'. This creates a state of denial that makes those foods even more attractive.

Effective dietary interventions

Professor Ogden has put together a check-list of what to do during weight management interventions.

- ◆ Emphasise what can be eaten rather than what can't
- ◆ Take small, low-effort steps towards changing dietary habits
- ◆ Minimise the importance of the emotional and social function of eating
- ◆ Find substitutes for eating, such as undertaking a new activity
- ◆ Underline the immediate negative consequences of overeating as well as the long-term ones
- ◆ Explain the immediate benefits of eating healthily, like feeling and looking better
- ◆ Empower people to take control

Although it is important to empower people to change their diet, a policy that combines behavioural change with an environment that makes healthy choices easier and sustainable would be the most successful strategy to reduce obesity [3].

References

1. Ogden J *The psychology of eating: From healthy to disordered behaviour*. Oxford, 2003
2. Ogden J (In Press) 2009. Improving obesity treatment: what can we learn from current management approaches? *Sheffield Primary Care Trust*
3. WCRF/AICR. *Policy and Action for Cancer Prevention. Food, Nutrition, and Physical Activity: a Global Perspective*. Washington DC: AICR, 2009



Satiation, satiety and weight maintenance

With increasing worldwide obesity levels, it has become more important to understand how we maintain the balance between energy intake and expenditure. Satiation and satiety are two important regulators of appetite, which in turn affect energy intake.

The satiety conference organised by the British Nutrition Foundation [1] in June explained the complex physiological and psychological factors influencing satiety and satiation and how they affect our eating behaviour. Here we summarise some of the evidence presented.

How satiation and satiety work

Satiation is the process that causes us to stop eating, thus controlling the amount of food we eat in one sitting. Satiety is the feeling of fullness that persists after eating, suppressing hunger between meals.

Satiation is initially influenced by sensory cues, such as the taste, texture and smell of food, and cognitive factors, like expectations. When the food reaches the stomach, gastric distension and the release of gut hormones induce satiation [2].

Physiologically, satiety is mainly affected by intestinal hormones, which are released when food is consumed [2]. In the long term satiety is partly influenced by leptin, a hormone which is found in proportion to the amount of fat in the body. However, obese people continue to consume excessive energy despite high levels of leptin [3].

What we eat affects satiation and satiety

The conference aimed to examine whether these mechanisms could be used to help maintain a healthy weight. Any food or drink can affect appetite, so it is important to determine which ones are potentially more satiating.

A lot of research has looked into different macronutrients and characteristics of foods. Various studies indicate that protein exerts greater satiety compared to carbohydrates and fats for the same amount of energy. Fat seems to be the least satiating macronutrient, predisposing to overconsumption, and this could be related to its high palatability. However, when energy density, the amount of energy in a specified unit of weight, is taken into account, no significant difference has been found between the satiating effects of protein, fats and carbohydrates [3].

Many studies show that fibre, especially viscous fibre like pectin, affects satiety. Fibre also adds bulk to foods, which causes longer chewing time and increases stomach distension, thereby promoting satiety [4].

Energy from liquids seems to be less satiating than solid foods. However, it is probably the way in which liquids are consumed that matters [3]. For example, liquid calories consumed as a drink, such as fizzy drinks and squashes, are less satiating than soups, which are consumed as foods. Alcohol leads to higher energy consumption when drunk before a meal [3].

Energy density, a key element of diets

Overall the energy density of foods and drinks, rather than their macronutrient content, is the factor that has been most consistently linked to energy intake [3].

The main determinants of energy density are water and fat. Fibre can also reduce the energy density of foods. Low energy-dense foods, such as vegetables, fruits and wholegrain cereals, contain more water and less fat than high energy-dense foods [5].

Studies have shown that people tend to eat the same weight of food rather than a regular amount of energy every day [5]. This means that the lower the calorie content per weight of foods eaten, the less energy people naturally consume. The implication of this finding is crucial for developing strategies that help people maintain a healthy weight without substantially changing the amount of food they eat.

A number of studies, including the WCRF/AICR Second Expert Report [6], have demonstrated the efficacy of low energy-dense diets in increasing satiety and reducing energy intake in the short term in both adults and children [3]. Until now only a few studies have investigated the long-term efficacy of low energy-dense diets on weight maintenance. In one of these, a large prospective study of middle-aged women with an eight-year follow-up, diets high in energy density were associated with greater weight gain [7]. Although more research is needed, the findings are encouraging.

A complex picture

Many elements apart from satiety and satiety can also affect what we eat. Our dietary choices are controlled by a number of other factors including the palatability, variety and portion size of the food available; the social context in which we eat; everyday distractions, such as television watching; and the effect of other physiological cues, like exercise and even sleep [3].

Differences between individuals are important in driving eating behaviour, and it is possible that many people are less responsive to internal physiological cues, and more influenced by the current 'obesogenic' environment, which makes it easy for people to gain weight.

So far energy density seems one of the best tools available to help people maintain a healthy weight. See our *Energy Density: Finding the Balance for Cancer Prevention* leaflet in the Publications Catalogue for more information.

References

1. Satiety conference, BNF 2009 [online]. Available from: <http://www.nutrition.org.uk/home.asp?siteId=43§ionId=1594&parentSection=302&which=2>
2. Blundell et al 1987, In J. Solms et al (Eds.) *Food Acceptance and Nutrition*, pp 205-219
3. Benelarm B 2009 *Nutrition Bulletin* 34:126-173
4. Slavin J & Green H 2007 *Nutrition Bulletin* 32(1):32-42
5. Rolls 2000 *Journal of Nutrition* 54:988-96
6. WCRF/AICR. *Food, Nutrition, Physical Activity, and Prevention of Cancer: a Global Perspective* Washington DC: AICR, 2007
7. Bas-Rastrollo et al 2008 *Am J Clin Nutr* 88:769-77



Increasing fat oxidation: recent research highlights

At the recent Royal Society of Medicine conference 'Obesity - a reality check? Towards a deeper understanding', Christine Williams, Professor of Nutrition and Pro-Vice Chancellor at the University of Reading, gave an update on the effect of diet and exercise on fat oxidation and weight reduction.

Fat oxidation is the process of burning body fat as a fuel to create energy. Stores of fat are virtually unlimited in the body, so fat is one of the main sources of energy. To maintain a healthy weight we need to achieve energy balance, when energy and fat consumption match energy and fat oxidation. Understanding the factors that increase fat oxidation could therefore help reduce obesity.

Here we summarise the findings from recent research into fat oxidation and weight loss:

1. **Exercise increases fat oxidation.** Prior exercise has been repeatedly shown to reduce levels of triglycerides in the blood both during fasting and after meals, especially after meals high in dietary fat [1]. There is also evidence that accumulating short bouts of physical activity, such as three 10-minute bouts, is as effective as a single 30-minute exercise session [2].



2. **The type of fat consumed influences fat oxidation.** Studies have shown that when meals are high in saturated fats, found in animal products such as meat and dairy products, and some vegetable fats like palm oil, a higher percentage of dietary fat is stored as body fat compared to meals high in unsaturated fats [3]. When diets are high in unsaturated fats, found for example in most vegetable oils, there is an increase in the percentage of dietary fat oxidised and in daily energy expenditure. This could lead to lower obesity and insulin resistance, both risk factors for many cancers.
3. **Oligofructose could help support weight loss and improve glucose regulation.** Oligofructose, a fermentable carbohydrate, is found in many plant foods, including wheat, bananas, onions, chicory and asparagus. It is not digested in the small intestine and is fermented by friendly bacteria in the gut. There is some evidence that a diet high in fermentable carbohydrates has satiating effects that could promote energy balance and decrease fat stores [4].

The overall message from these research highlights is to eat mainly a plant-based diet, reduce saturated fat intake and be regularly physically active.

References

1. Gill JM 2004 *Eur J Lipid Sci Technol* 106:110-121
2. Stensel et al 2006 *Am J Clin Nutr* 83(1):24-29
3. Kien et al 2005 *Am J Clin Nutr* 82(2):320-326
4. Parnell JA 2009 *Am J Clin Nutr* 89(6):1751-9

How to reduce salt in our diet

New voluntary targets for salt reductions in manufactured foods for 2010-2012 have recently been released by the Food Standards Agency (FSA) [1]. The new targets, which are more challenging than previous ones, will help UK consumers reduce their average salt intake from the current 8.6g a day to the recommended 6g a day maximum for adults. Excess salt intake increases blood pressure and is a probable cause of stomach cancer [2].

Although in recent years the food industry has made some progress in reducing the salt in its products, about 75 per cent of the salt in our diet still comes from processed and manufactured foods. It is important to help patients limit their salt intake and recognise which foods are the worst offenders.

Tips to reduce salt intake

- ◆ **Eat more vegetables and fruits and prepare meals with fresh products** as often as possible. Processed and canned foods are often high in salt, as sodium is added to preserve foods and give flavour. So switching to fresh ingredients will automatically cut salt in your diet.
- ◆ **Beware of hidden salt.** Some processed foods may not taste salty but can still be high in salt. Watch out for hidden salt in bread, breakfast cereals, soups and ready meals.

- ◆ **Read food labels.** Avoid products that contain more than 1.5g of salt per 100g. These are signposted as 'red' on the FSA traffic light front-of-pack labels. When buying canned foods, choose products without added salt or those canned in water rather than brine.

- ◆ **Salt is not the same as sodium.** Some labels only show the sodium content of the product. Multiply sodium by 2.5 to work out the equivalent salt value in grams.

- ◆ **Use spices, herbs, garlic and lemon instead of salt when preparing foods.** Gradually reduce the salt added during cooking and at the table. Your taste buds will adjust within a few weeks.

We have just published our new *A Closer Look At: Salt* leaflet, which explains the link between salt and cancer and includes tips to reduce salt intake and suggestions for healthy swaps. See our Publications Catalogue for more information.

References

1. Food Standards Agency, 2009. [online]. Available from: <http://www.food.gov.uk/news/pressreleases/2006/mar/targets>
2. WCRF/AICR. *Food, Nutrition, Physical Activity, and the Prevention of Cancer: a Global Perspective*. Washington DC: AICR, 2007

