Food as Medicine conference
Healthy farming = healthy food
An ethical approach to obesity
Do doctors underestimate patient’s interest in lifestyle change?
Lifestyle medicine
Kitchen on prescription
Ayurvedic perspectives on self-care
Are we medicalising normal human experience?
Medical student resilience symposium

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Lifestyle, seat belts and sugar tax

Nutrition and lifestyle are the roots of much chronic disease. So what should be done: coercion, persuasion, neo-liberal laissez faire? Libertarians say it is up to the individual, but for liberty to work there has to be an equality, something that’s in short supply in our divided society where deprivation plays a big part in how people eat, live their lives, and die. The inverse care law tells us that those needing a nutritional leg up most and who lack the resources for leading healthier lifestyles are the least likely to get them. This issue of JHH considers different sides of the lifestyle coin.

Whether or not the force of law, or better information, or neo-liberal policies are the way forward, the fact is that if post-2000 trends continue 18% of men and more than 21% of women will be obese worldwide by 2025; 6% of men and 9% of women severely. Meanwhile ironically, tragically, predictably, under-nourishment will still be killing most of the world’s poorest (NCD Risk Factor Collaboration 2016).

Freedom to choose how you live sounds like a good idea, yet there is a place for the law in all this. After 1983 using seatbelts was no longer a ‘lifestyle choice’; fatalities have fallen by 60% and serious injuries by 67%. The 2007 smoking ban has seen heart attack rates in the UK falling by more than 40% – much of this attributable to reduced second hand smoke exposure. It seems laws can make a difference if certain lifestyle choices harm innocent bystanders. Should the state intervene if the way people eat or live their lives harms others? Is the tide of diet- and lifestyle-related chronic disease harming us all by threatening to inundate and sink our increasingly unsustainable NHS?

Treating type 2 diabetes and its complications currently costs the NHS £8.8 billion a year (Hex et al 2012), just over 8% of its annual budget. The prevalence of diabetes is estimated to rise to 4 million by 2025. As long as it is viewed as a chronic, irreversible condition, diabetes management will remain very much pharmaceutical. Yet the drugs used cost the NHS hundreds of millions of pounds though they barely reduce its awful complications – kidney, eye and nerve disease – and have even less impact on diabetics’ very high incidence of heart attacks, stroke or early death. So why are people with type 2 diabetes seldom told that they are carbohydrate intolerant, and should forego bread, rice, and sugar and can eat healthy fats now that cheese and butter, as a result of new research, have been taken off the danger list?

Are doctors to blame if the information on which they base their clinical decisions and advice to patient is distorted by commercial pressures? The pharma industry has found a vast goldmine in ‘treating’ diabetes and high cholesterol. The food industry remains free to make cheap unhealthy foods, and drinks that pack ten teaspoons of sugar into every can, and to market them aggressively. This is one unholy alliance: we pay Big Food to make us ill and then pay Big Pharma to pick up the pieces!

You might think people would eat more wisely once they were told that the pounds they were piling on made them odds on for diabetes or an early coronary. This would work if human beings were completely rational, and didn’t live in an obesogenic society and accept being called ‘consumers’; and where an unending supply of food, for many of us wakes up unconscious famine-fear, compelling us to stoke up even though we no longer need the calories to fuel hunting and gathering or labouring in the fields.

Somehow, in the long term, our unsustainable ways – our entire society’s ‘lifestyle’ – will have to change. But the NHS doesn’t have that long. Let’s hope the diabetes/obesity/CVD tsunami brings it home; food can be medicine, or it can be health-toxic. It’s a message that may soon be hitting cardiologists hardest. Aseem Malhotra is an NHS cardiologist who gets it. He is saying loud and clear that healthcare systems must incorporate lifestyle medicine because it is cheap, and without side-effects. He also sees promoting low-fat foods as perhaps the biggest mistake in modern medical history (Malhotra 2016). And he dismisses so-called ‘bad cholesterol’ as a factor in cardiovascular disease once people are over the age of 60.

Can we expect the tanker-turning political acts needed to ‘incorporate lifestyle medicine into health systems’ to be driven by neoliberal economics? Or on the contrary, does ‘the market’ prefer its ‘consumers’ to be infantilised and disempowered? Would a benign ‘nanny state’ be better at treating society’s oral obsession with having more stuff? Then what kind of professional development campaign could free doctors – too long constrained by big pharma’s blinkers – to start practising lifestyle medicine? In a society founded on liberty, equality, brother-sisterhood and sustainability all this could happen. ‘You can be in my dream if I can be in yours’ (Dylan 1963).
Doctors can only tackle chronic disease with the right tools. Teach them nutrition.

Jerome Burne
Editor, HealthInsightUK

Here’s a really bad idea. Send a dozen nutritionists to work alongside regular doctors in a Medecins Sans Frontieres team providing emergency treatment to the wounded in a war zone. It’s a bad idea because they would lack any relevant skills. They might help speed up recovery but in the operating theatre they’d be worse than useless as the wounded come in.

It’s obviously a ludicrous idea but how is it different to GPs trying to deal with a daily stream of people with chronic disease? With (usually) the most cursory knowledge of nutrition and ways to change lifestyle, aren’t they doing something very similar?

Everyone agrees we have an increasingly unhealthy population with rates of obesity, diabetes, cancer and Alzheimer’s soaring. And many estimates put the proportion of cases that could be avoided by eating well and following a healthier lifestyle at around 50%. Yet 40,000 skilled and expensive trained GPs sit on the front line to deal with patients needing help with nutrition and lifestyle with no real knowledge of how best to do it. The only difference between them and the theoretical nutritionists in an operating theatre is that their patients die over years rather than hours. The GPs’ toolbox needs a major upgrade.

Why this mismatch between medical skills and what patients need has to change was the focus of the Food: The Forgotten Medicine conference, organised by the College of Medicine. The speakers were nearly all doctors or clinicians who had already incorporated nutrition into their practice.

They talked with passion and authority on how this approach can offer GPs a far more sophisticated set of options to deal with the myriad problems that come with chronic disease. By the end it was all too clear that the existing toolbox GPs and other medics rely on to deal with chronic metabolic diseases – eat a healthy balanced diet and try to get a bit of exercise – is desperately in need of a massive upgrade.

The grand old man of nutritional medicine, the American doctor Andrew Weil, took us on a whistlestop tour of some of the possibilities.

A patient is more than just a physical body’, he began, immediately introducing a much broader perspective than the one usually available in a time-poor GP’s surgery,
emphasising the importance of such lifestyle issues as sleep, ways of handling stress and social connections as factors that can help or hinder health.

All of which can directly impact on such an obviously physiological problem as raised inflammation, often found in people with chronic disease. The aim of the non-drug approach is to return the system to a healthy balance between enough inflammation for repair and protection but not enough to cause damage.

A patient is more than just a physical body

Sophisticated nutrition offers options

Nutrition and changes in lifestyle offer a number of ways to do this including fasting, taking an anti-inflammatory compound such as curcumin (from the spice turmeric) and Weil’s Anti-Inflammation Diet – which is a variation on the familiar Mediterranean one. ‘It’s very similar to the traditional Japanese or Asian diets,’ he says, ‘which are now tragically being displaced by SAD – Standard American Diet.’

One of the attractions of sophisticated nutrition is the number of options – nearly all low risk when used carefully – that may work for different conditions. So another route to bringing down inflammation is to reduce intake of polyunsaturated vegetable oils, used for cooking and found in processed foods.

This is now controversial since vegetable oils have long been sold as the healthy option, in contrast to those dangerous saturated fats, but the evidence increasingly suggests that the two should swap approval ratings. Here again a good grip on nutrition is needed to help patients to understand the evidence and to make this switch not just with fats but also to make sense of the confusion currently swirling around the debate over the benefits of a low carbohydrate diet.

‘Instead of vegetable oils go for fats found in fruits such as olives and avocado which are generally beneficial,’ says Weil. ‘This is the kind of data that doctors need to advise patients about but they can’t do it at the moment as they don’t have the data.’

How lifestyle can turn on healthy genes

Not only are there more safe options with nutrition but when used together they tend to co-operate rather than compete. For instance, there is a third way to bring down inflammation, in addition to fasting and compounds such as curcumin, which is with exercise. But why those three? At first sight they seem rather arbitrary.

This is a good example of the way that the lifestyle approach can use multiple approaches that benefit the whole body. It’s been known for a long time that both fasting and exercise are, obviously, ways of losing weight but also for living longer and, more recently, that one of the ways they work is by cleaning up the garbage and waste products that can build up in the cells of older people.

One of the attractions of sophisticated nutrition is the number of options …that may work for different conditions

But how does curcumin fit in here? The reason that, along with exercise and fasting, it provides similar benefits is because they are all able to turn on a set of genes known as sirtuins which have been linked with increased lifespan, garbage clean-up and reducing inflammation. Curcumin is just one of a type of plant chemical known as a polyphenol, which can have very specific effects, often by altering gene activity.

There are thousands of polyphenols found in a wide variety of fruits and vegetables and researchers are teasing out the huge range of their effects such as encouraging weight loss, slowing tumour growth, lowering blood sugar and protecting the brain. Plants known to be rich in them include red grapes, green tea, dark chocolate (the expert on polyphenols at the conference was Simon Mills of the National Institute of Medical Herbalists).

How can you advise on fats if you don’t know nutrition?

Among the many natural substances that can also affect gene activity are the omega 3 fatty acids, commonly found in fish oils, nuts and seeds. ‘But even though the evidence for their benefit to the brain and cardiovascular system is very strong and has been growing for years, it continues to be largely ignored,’ says Dr Alex Richardson of Oxford University, one of the leading lipid researchers.

‘We know it is vital for mother and baby, yet despite widespread deficiencies in pregnant woman there is no programme for supplementing it. The benefit for children with behavioural difficulties is well established and yet it is not a regular part of any psychiatric programme.’

Being able to ignore omega 3 benefits is to be expected if you know very little about fats in general. However the recent increasingly heated debate over the high fat/low fat issue highlights the way doctors’ ignorance may have been tipping patients out of the frying pan and into the fire for years. And the issue is not just how much fat we should be getting but what sorts.

Polyunsaturated vegetable oils have long been recommended as the healthy alternative to saturated fats, but experts like Weil and Richardson claim they should be
used sparingly, not least because of their effect on inflammation. Yet omega 3 is also polyunsaturated but it’s anti-inflammatory. It’s complicated. And that’s just the start, Richardson points out. If you want to properly advise patients over saturated fats you really need know there are at least 30 different types with quite different properties before you start.

**Your poo: the new medical frontier**

So nutrition and lifestyle is not a soft option and it is about to get a lot more complicated as Professor Tim Spector of King’s College London made clear when he took us on a witty and lightening tour of our microbiome – poo to you. It’s emerging as a leading player in our health, also regulating weight gain or loss, how well we handle fats, our levels of inflammation, and probably our moods and mental states also.

> There is a big difference in the way different people respond to a food. That’s why setting guidelines is so fraught.

‘The influence of this two-pound colony of bacteria living in our guts is one of the reasons why it is hard to get consistent and clear results from trials involving diet,’ says Spector. ‘We all share around 99% of our genes with other people but our microbiome is far more individual. Yours is only about 20% similar in its combination of bacterial species to anyone else’s. That means a big difference in the way different people respond to a food. That’s why setting guidelines is so fraught.’

But there are also certain common patterns. Having a large number of species down there is a sign of health. ‘People with chronic diseases, such as heart disease and diabetes, all have much less diversity. It seems possible that increasing diversity will become a treatment and diet of meals from food outlets like McDonald’s. ‘After just 10 days of eating nothing else, the number of species recorded in his poo was down by 1,200.’

‘Exactly what’s going on isn’t clear. It could be the lack of fruit and vegetables or it could be all the chemicals – the emulsifiers, the artificial sweeteners and maybe the number of antibiotic courses you had as a child affects how you handle it.’

After what was only a brief glimpse of the specific and varied ways you can directly affect the working of your whole system with nutrition and lifestyle you couldn’t help wondering – why on earth wouldn’t doctors want to know this stuff? Not only does it allow the patient to become more in control of their health but it provides the doctor with so many more levers to pull.

**The medicinal power of kindly helpful listening**

But an integrated approach combining drugs and nutrition is not all about the biochemistry of fats or turning genes on and off with food or fasting or teasing out the astronomical complexity of the interactions of the microbiome. Very simple things can also be very effective. Ruth, a one-time exercise instructor who now works in the surgery of the College of Medicine’s chairman Dr Michael Dixon, described what she does with patients in the practice. It’s called a ‘social prescription’.

> I talk to them and I listen. I get to understand what works for them and what they need,’ she told us. ‘Often it’s something very simple like how to read a food label. I’ll get to find out about their home life. Maybe I’ll introduce them to the staff at our café who run diabetic cooking lessons. We’ll talk about what they need to be healthy. It might involve tweeting their goals to friends to give a bigger incentive to stick to them or to join some local social groups.’

It all sounds like the best sort of neighbourliness but does it actually achieve anything? This is what Dr Marie Polley, lecturer in health sciences at the University of Westminster, wanted to know too. So she tracked 124 diabetic and pre-diabetic patients who had been given Ruth’s social prescription but no other sort of treatment.

The results for nothing but chat and kindness were remarkable. The key blood measurement for diabetics is the HbA1c which tells you how high your blood sugar has been on average over the past three months. Over 48 and you are diabetic, 47 to 42 is pre-diabetic and below 42 is normal.

‘Only 4 increased their waist circumference, on average they lost an inch,’ says Polley. The change in the HbA1c was just as impressive. At the start the pre-diabetic patients averaged 47 and after three months that had dropped to 45; at 9 months it was 44 and still dropping.

Of course there are huge issues with the cost of running nutrition trials and the best ways of gathering evidence for multiple lifestyle interventions but pretending none of it is effective and can be ignored really isn’t an option.
Good nutrition begins in the soil

Patrick Holden
Chair, Sustainable Food Trust

Quite rightly more and more doctors and members of the public are asking ‘what should I eat to stay healthy?’ As someone who has been farming sustainably in West Wales for the last 40 years, I would add the question, ‘How should we farm so that the food produced truly promotes the health of the public?’ These two questions are linked, because what we have done to the chronic diseases of our bodies has very much been mirrored in the soil.

Introduction

At a recent conference in San Francisco called The True Cost of American Food, Tyler Norris from Kaiser Permanente (www.tylerorris.com) (perhaps the leading health insurance and managed healthcare company on the west coast) said they are facing an unaffordable health treatment crisis. He attributed much of this to the industrialisation of agriculture, particularly in the Central Valley in California which is America’s food basket.

Not that Norris knew, but he was echoing an observation made many years ago by Lady Eve Balfour who founded the Soil Association. She called for a thorough investigation of the causes of health (which she believed are rooted in the food we eat and the way we farm) because she saw the NHS becoming a national disease treatment service rather than a national health service.

Lady Balfour had been inspired by Sir Albert Howard, a man who had been sent out to India at the height of the Empire to encourage the people of India to adopt western diets. Fortunately, Howard had the intelligence and humility to realise early on in his mission that he had nothing much to teach India about sound nutrition. He recognised too that the relative healthiness of north west India was due not simply to what people ate, but to the way their food was grown in soils which produced highly nourishing crops because the farmers, perhaps intuitively and without the science which has only recently confirmed its importance, always looked after the soil microbiome.

Industrial farming

How much does current farming practice affect the health of the microscopic life of the soil? Ought farmers to try and influence it for the better, and do we need to change agricultural practice in order to restore the public health? To answer these questions we must go back 70 years and see what happened to post-war agriculture and farming.

In the mid-1940s this country embarked on an ‘experiment’ to stimulate the growth of plants and animals artificially. In the case of plants we used chemical fertilisers; with animals it was high protein feeds. The ‘side-effects’ of these methods in the plant world include fungal diseases, pests and weed problems. Our response of course has been to suppress them with fungicides, pesticides and herbicides (you might consider whether this process has parallels in medicine).

Where livestock is concerned, high protein feeds disturb their internal microbiome. We then treat the ensuing infections and inflammatory diseases with a range of antibiotics and other antimicrobial drugs (see above...
comment). The use of these chemicals in milk and meat production contributes to the development of antibiotic resistant bacteria and the crisis the world now faces, with the prospect of communicable diseases regaining their former power as the major cause of premature death globally.

Seventy years of this kind of farming has so severely depleted the soil microbiome that in most areas we now have a predominantly dead soil. Only by changing our farming practices can we rebuild soil microbiological life and the soil carbon in which this resides. This is well established. Less clear, until we have more research to go on, is whether in addition, pesticides are impacting on public health by contributing to endocrine dysfunction.

By weight, 80% of antibiotics used in the US go to livestock
By weight, 70% of antibiotics used in the EU go to livestock

Note: UK government figures indicate that less than 45% of antibiotics in the UK go to farm animals. On the face of it that makes the UK look much more responsible than the US or EU overall. However, use is much higher in pig and poultry production than in cattle and sheep production. The UK appears to have a low use because 60% of pork is imported while we have a much higher population of sheep than other EU countries.

The damage done

Clearly the dying soil is already a huge and increasing problem. In parallel, we face a dramatic narrowing of the gene pool in agriculture and in the biodiversity that formerly co-existed on farmland. A third element in the farming crisis, alongside these interwoven forms of depletion, is a pricing system that produces cheap food no matter what the true costs. But if farming methods had to take into account the damage done to public health and the environment much would have to change. When the cheapest food is probably doing you most damage the system is sending very confusing signals to consumers. Yet as long as the ‘externalities’ – the damaging consequence to public health and the environment – are not reflected in the price of food, good and sustainable food will always cost more at the checkout. Farmers are in a bind too because there is a better business case for producing food in an intensive way than for producing food in a sustainable way, because they do not have to pay for the hidden costs. And so the system is perpetuated by a systemic problem in which farming has played a major role but is powerless to resolve.

The issue of endocrine disruption, due to pesticides and other chemicals routinely used in almost all of our food production systems, should also be of greater concern. Though there is an absence of solid data confirming or refuting the links between endocrine disrupting pesticides and negative public health outcomes, there are correlations we should not ignore. One example of this is the herbicide glyphosate, easily the most widely used herbicide in the world, which for the last 40 years has been promoted as an entirely safe chemical. Last year the WHO classified it as a probable carcinogen due to its endocrine disrupting properties and studies indicating a link between exposure and certain types of cancer. So if we are hoping to impact cancer prevalence by giving patients more health promoting foods, we need to know whether those same foods carry other risks.

I remain extremely concerned about GM technology, in part because of the risks we take by altering the natural world before we fully understand it, but also because it has resulted in other changes, including impacts on wildlife and the widespread use of Roundup, the most widely used herbicide containing glyphosate. Roundup is getting everywhere. It is in air we breathe, the water we drink and of course in our food, partly because it is also used as a pre-harvest desiccant – in other words it is sprayed onto many crops like oil seed rape, both GM and non-GM, and grain crops before they are harvested and thereby kills off all the plants in that field, so contributing to the dramatic narrowing of the gene pool. Moreover, due to the uptake of GM crops farmers are increasingly rejecting the crop varieties that have adapted to the places where they have been grown for generations, in favour of GM herbicide- or pesticide-tolerant crops. This gives a farmer a short-term economic advantage, but at a long-term cost that should make us all much more worried about trade agreements and pricing policies that will make it ever more difficult to stop the consequences of genetically modified crops affecting our food and our food supply.

As for the dangers of meat, I think we need to differentiate between grass-fed meat which is high in omega-3 fatty acids and antioxidants, and grain-fed meat which contains very little of these vital micronutrients. We also need to distinguish processed meat, which can include a wide range of chemical additives, and carcass meat from healthy animals. When I went to northern Kenya about three years ago, to a gathering of 26 tribes of ‘nomadic pastoralists’ I learned that most of them for much of the year were subsisting on a diet of blood, fresh meat and milk. They looked unbelievably healthy! Perhaps with so many nutritional orthodoxies – notably the long-standing case against saturated fats – already now in question we should at least keep an open mind about whether a health-promoting and sustainable diet should include meat.

Better food policy

Right now there may be a growing (and changing) consensus on what is good for our hearts, our brains and our whole body and therefore what we should eat. But we are a very long way indeed from having farming procedures and practices that would sustain that sort of food supply. And we won’t make the necessary progress until growers properly engage with the health professionals
who are responsible for maintaining public health. Only if there is public pressure will these things happen. I believe that if we could get public health and farming out of their silos and find a way of linking these sectors we could then make the necessary structural changes to agriculture.

Above all we must link our diets with the productive capacity of a sustainable food system

We need to move away from chemistry to biology in the way that we farm. Nitrogen fertilisers are one of the principal reasons why the soil biology has diminished, along with the pesticides which go hand in hand with them. But giving them up would call not just for huge structural changes in agricultural systems, but also for a shift in what farmers produce, if 21st century diets are ever going to restore the vitality and the diversity of our farming systems and our population. Without nitrogen fertiliser, a return to the rotational practices of mixed farming is the only way we can rebuild soil fertility and produce enough nitrogen naturally to grow bountiful crops.

This would be the biggest structural change in agriculture for more than half a century, and it would have huge implications for what we produce and provides another dimension to the whole issue of what we should eat. At the moment we have a globalised food economy, but surely within the constraints of our population and the capacity of our agriculture we could produce much more of our food nearer home. What would happen if we sourced our staple foods from the sorts of production systems that we are capable of switching to in this country, and if the national diet became fit to maintain public health?

Farming, food and the future

Above all we must link our diets with the productive capacity of a sustainable food system. In terms of our staple foods, a sustainable farming system would have to give up producing chicken and pork intensively. We cannot rebuild soil health while growing arable crops year after year, as we do at the moment in many parts of the UK, and we should not continue to rely on imports of soya bean meal from South America where its production is degrading soils and rivers, while putting carbon into the atmosphere.

This would mean that we would produce less cereals, probably about half the quantity under a reformed agricultural structure. But during the fertility building phase which would probably be cellulose-based from grass and clover, we would need ruminant livestock producing red meat, grass-fed of course, to digest the cellulose, and also to re-manure and reinstate the lost biology of the soil. And to give the farmers an income we would need to eat that red meat. A sustainable diet should mean no more cheap industrialised chicken or pork, whatsoever; some expensive grass- and partly grain-fed chicken and pork, because they can get some of their diet from grass but probably no more than 30% since they cannot digest cellulose in the ways cattle and sheep can. We would still have to feed some grain to our dairy cows, as most dairy farmers do.

Salads would feature too but not the sort the supermarkets are selling. Unless you buy organically, supermarket salads are almost universally from hydroponics: not soil-fed, but tube-fed, and some studies suggest hydroponic produce impacts the human biome. We will need vegetables and some grain, but we would eat the grain instead of feeding it to intensively reared livestock.

For our health’s sake we need to avoid processed foods. On the whole we need to move towards more fermented products – sourdough bread, yogurt, cheese; lots of cheese (I am as you might suspect a cheese producer!).

Ways forward

To enable those changes, we need a massive education programme. It’s no good just asking ‘what should I eat?’ without linking the question to ‘how can we farm to produce health-promoting food from farming systems ever more aligned to our new knowledge of microbiomes in the gut and in the soil?’ For the soil is the gut – the source of nourishment – for the plants we farmers grow. And it now seems there is a vital link between the microbiome of our intestines and the microbiome of the soil. Seventy years of intensive farming have decreased the microbiome of the soil to such low levels that now we urgently need to restore it. And this will mean changing the way we farm.

To achieve this we need enabling policies and a supportive economic environment. The economic case will depend on finding a reliable means for assessing the negative health outcomes of present farming systems. Once monetised, we would have a very strong case for government incentives to switch to more sustainable farming systems. But as the health outcomes are going to be long term and certainly not within the political cycle, these changes will only happen if there is a huge rise in public awareness of the links between our health, what we eat, and how we farm.
An ethical approach to obesity

Robyn Toomath
Clinical Director of the Internal Medicine Department, Auckland City Hospital

Having trained and worked as an endocrinologist I now work largely as a general physician. In 2001 while President of the New Zealand Society for the Study of Diabetes I co-founded the advocacy group Fight the Obesity Epidemic (FOE) campaigning for public health measures to end obesity. After hundreds of radio and television interviews I decided I needed to write a book. In 2016 Auckland University Press published Fat Science: Why Diets and Exercise Don’t Work – and what Does. By describing the true drivers of obesity, my hope is that people who struggle with their weight will be empowered and join public health activists to demand a healthier environment in which to live.

Setting patients up to fail?

Recommending a course of treatment with only a small chance of success wouldn’t be so bad if it was framed this way from the outset. Cancer specialists do this all the time and their patients then make an informed decision to try the therapy or not. Imagine if we said to our patients ‘you can try weight loss. It would be really helpful if it worked but there is an 85% failure rate’ (Ayyad and Andersen, 2012). Many might decide they’d rather avoid the misery of dieting and accept the inevitable; or try to improve their health in other ways. But we not only fail to give realistic expectations, we do something worse. We place all the responsibility for treatment success or failure on our patients rather than ourselves, AND we imbue the treatment success with value not normally associated with effective medicine. Years after I decided not to recommend losing weight as a treatment option I had to stop myself from celebrating weight loss when it occurred. The flipside of congratulations for weight loss is disapproval of weight gain. People with diabetes are constantly judged for their compliance with blood sugar testing regimes and dietary restrictions. I figured the last thing they need was
a value judgement attached to the biological phenomenon of weight maintenance.

Body size is genetically determined and physiology fiercely resists weight loss.

**Obesity has genetic roots**

What’s surprising is our adherence to the notion of personal responsibility for weight when it is clear that body size is genetically determined and that physiology fiercely resists weight loss. What naturally slim person doesn’t have at least one slim parent? Sure they eat less than their overweight friends but it’s clear that appetite is genetically determined. You only need to look at the monogenic forms of obesity such as Prader-Willi Syndrome and leptin deficiency to see that the problem is one of hyperphagia. Professor Jane Waddell studied responsiveness to food in breast-fed babies and young children demonstrating a clear relationship to genetic predisposition to obesity (Llewellyn *et al* 2012; Webber *et al* 2008).

And it’s not the rearing environment. In 1986 the psychiatrist Albert Stunkard first examined the relative effects of genetics and rearing environments using the Danish adoption registry. The purpose of the registry was to study genetic influence in schizophrenia but he used the data collected to study the effect of adoption on body weight. He found almost no correlation between the weight of adopted children (now adults) and their adoptive parents despite the shared environment. Fortunately, the registry had recorded the weights and heights of the biological parents at the time of adoption and Stunkard discovered a close relationship between the weights of children and their biological parents. Eighty per cent of those who had two obese biological parents were also obese – it was as if the rearing environment had no effect at all (Stunkard *et al* 1986).

**Our obesogenic society**

Stunkard’s dismissal of environmental effect was understandable in 1986 when the prevalence of obesity was still low. But the sharp rise in obesity prevalence since then can only be attributed to environmental change. My take on this is that if you look around a room full of people, the difference between those who are fat and those who are thin is their genes. But the number of people in the room who are fat compared to 30 years ago is the effect of the environment. Whether we call it the thrifty genotype or something else it makes sense that people with active food-seeking behaviours, people who have appetites that allow them to eat all the food in front of them at one sitting in case food is subsequently scarce, will have had a survival advantage in evolutionary terms. It is only in modern times where food is ubiquitous and energy-dense that the food seeking genes have become maladaptive. Understanding the genetic basis of appetite explains why some of us eat more in response to the enticements of advertising, two for one deals, and increased portion sizes while the lucky few remain unaffected. We don’t have to do genotyping to see which we are, we only need to look at our parents.

Collusion between libertarian governments, food and drink manufacturers, supermarkets and advertisers and the weight loss industry

Of course it is more complex than that; there are the effects of poverty, stress, shiftwork, culture. By the time you add long commutes, sedentary jobs and cities that are too scary to walk in as contributors to inactivity, you see that free will as a determinant of our weight plays a very tiny part indeed. Why is it then that all of our efforts to turn the obesity epidemic around are focused on persuading people to change their behaviour? I see it as collusion between libertarian governments, food and drink manufacturers, supermarkets and advertisers who don’t want to restrict commerce and the weight loss industry which makes money out of individuals’ doomed attempts to lose weight.

Not only do I not ask people to lose weight I tell them that despite their best efforts, my expectation is that their weight will not change.

**A gentler approach to lifestyle change**

So what do we do? We start off by being honest. Not only do I not ask people to lose weight I tell them that despite their best efforts, my expectation is that their weight will not change. We therefore have to concentrate on keeping them as healthy as possible by other means. Nutrition remains critically important and my focus is on getting people to eat more fruit and vegetables. The only thing I suggest they prohibit is sweetened drinks. If they are addicted to the sugar/caffeine combination I recommend artificially sweetened drinks as an alternative. Exercise too is extremely beneficial independent of any effect on
weight (negligible). I’m interested in the data that shows sedentary behaviour is particularly harmful. I explain this to my patients and describe how some of the physiological processes that drive the metabolic syndrome are switched off by interrupting spells of sitting with short bursts of activity. (Whenever I chair a session at a conference I get everyone to stand and walk around after an hour).

Otherwise I recommend incidental exercise over recreational activities. Best of all is travelling to work by public transport as this provides non-discretionary exercise walking to and from the bus or train etc. Attendance at gyms or participation in group sports is all good of course but it tends not to be sustained. Best of all is to have a job that is physically active but these are now rare. For individuals with morbid obesity the only effective treatment is obesity surgery, preferably the laparoscopic Roux-en-Y gastric bypass although newer techniques may supplant this.

A whole-of-society approach

For the population we need public health measures that reduce the consumption of energy-dense, nutrient-poor food and drinks and increase physical activity. This requires a whole society approach and at government level there needs to be a food policy that encompasses transport, treasury, agriculture, trade, education and health. Anti-obesity initiatives need to be evaluated for their potential for stigmatisation. Governments tend to favour behavioural approaches such as requiring schools or doctors to measure BMI and provide education but these continue to attribute obesity to personal choice and have the potential for harassment—especially at school.

Environmental approaches such as changing zoning laws to prohibit the building of fast food outlets near schools and fiscal measures like taxation on sugar-sweetened drinks have low potential for stigmatisation. There is no need to remove choice or the opportunity for highly motivated individuals to overcome genetic odds and remain slim. We do however need to understand that it is for reasons outside our control that most of us are now fat and becoming more so with time. We need to change the default so that it is easy to eat healthily and to exercise, not the other way around.


Do we doctors underestimate our patients’ interest in lifestyle change and willingness to collaborate to improve health?

David Unwin
GP; RCGP National Champion for Collaborative Care and Support Planning in Obesity & Diabetes
RCGP clinical expert in diabetes

A GP partner in Southport for 30 years, I have witnessed first-hand the twin epidemics of sugar (type 2) diabetes and obesity developing in my community. Also I noticed I was spending more and more time signing prescriptions, monitoring blood tests and checking blood pressure. Deep down there was a nagging doubt about this being the best use of my time and energy to help my patients find good health. The results just didn’t seem that good. I began to have success in getting patients to give up sugar completely and the rest is history!

Yesterday I asked a patient how she felt about being on long-term medication for her blood pressure.

‘It’s a worry as I’m only 40 and it’s taking three different meds to keep my BP down, also how many can you keep adding and be safe?’

This presented the ideal opportunity to explore lifestyle improvements as an adjunct to her care. She said it was a ‘relief’ to feel she might be able to ‘take control’. To my embarrassment she had not been weighed for some years, so we agreed to get a baseline weight measurements (96kg) and added in a waist circumference (118 cm); she was surprised to hear weight loss would really help her case and may even give her the chance of reducing medication.

For the past four years I have been experimenting with a lower carbohydrate diet to help interested patients like this one. I keep an Excel spreadsheet of anonymised (and consented) patients as a rather lowbrow basis to my practice-based research (Unwin and Unwin 2014; Unwin and Tobin 2015; Unwin 2014a; Unwin et al 2015). So I can tell you I now have a case series of 91 patients on the diet for an average of 15 months who have lost an average of 8.8 kilos. Over 40 of my patients weigh less now than at any time since the year 2000!

In my case series the systolic BP drops by an average of 7.5mmHg, the diastolic by 5.5mmHg, giving me hope for the lady from yesterday. But quite unlike most drugs which only target a single surrogate marker she may experience a whole host of other improvements. The average cholesterol drops by 0.36, and the cholesterol ratio by 0.47. Of the 91 low-carb cases, 60 have diabetes and the average HbA1c dropped by an amazing 12.1 mmol/mol taking many into the pre-diabetes category and avoiding metformin. Added to this are reported improvements that cannot be measured; self-esteem, knee and back pain, more energy and feeling younger.

Results I was quite unable to achieve in the first 25 years in practice. I wonder why?

I suspect it’s a question of belief. At medical school we spent months learning pharmacology as ‘the most important tool of our trade’ alongside surgery. Lifestyle medicine and even disease prevention was hardly given a mention, it just wasn’t sexy. Also medicine was something ‘done to patients’ whose part was to get better and be grateful! This situation was compounded by ‘evidence based

So much chronic disease is partly a result of the lifestyle choices we make. The drugs we doctors prescribe for these conditions may control things like type 2 diabetes or hypertension but can also lead to other problems and don’t lead to a cure. For most of my career I thought patients were not interested in changing their lifestyle. I was wrong and find now that very few of my patients actually choose lifelong drugs if lifestyle alternatives are explored in a supportive way.
Do we doctors underestimate our patients’ interest in lifestyle change and willingness to collaborate to improve health?

**Light dawned with asking WHY the patient is unwell (causation)**

Very gradually I began to have a vague sense of failure, signing literally hundreds of scripts for folk who didn’t really seem much better, spending ages measuring BPs and adding in more medication. Then the depressing business of the guidelines – many of my patients have multiple problems – so which to prioritise; diabetes, hypertension, obesity, depression or osteopenia? Also the patients didn’t seem to shine with health no matter how many medications I gave them, nor were they very interested or grateful! It occurred to me one day that a person weighing 18 stone with central obesity, knee pain and dyspnoea isn’t a well person no matter how many drugs I use. I had stopped asking WHY my patient was ill, what were the true causes of the illnesses I was dealing with? Hypertension, diabetes, obesity, chronic pain, even depression? Instead I was substituting what would satisfy the tests I arranged related to these activities. Consultations had become ‘can I either reassure it’s trivial, or can I offer something which will inform the patient of the problem? Instead I was substituting what would satisfy the tests I arranged related to these activities. Consultations had become ‘can I either reassure it’s trivial, or can I offer something which will inform the patient of the problem?

**Looking back it was the rarity of using my skills to cure patients that was feeding that sense of failure.**

Essential hypertension illustrates my point. Four years ago at a clinical meeting I asked the question *What is the cause of essential hypertension?* Mystified that I should even ask colleagues explained patiently ‘that’s why it’s called “essential” – we don’t know’. I replied, ‘If you don’t know the cause how can you be sure what the best treatment is?’ In the end it was agreed I thought too much and we should just follow the guidelines! Around the same time in one week I called out three ambulances for elderly people who collapsed in hot weather due to overtreatment with anti-hypertensive drugs. There had to be another way. I started incorporating more lifestyle advice into the consultation, particularly before initiating lifelong medication (Unwin 2014b). I made an exciting discovery: *given a choice many patients appreciate the chance to take control of their health* by losing weight or taking more exercise as an alternative to drugs. So now for moderate hypertension, instead of prescribing straight off I might offer the patient these alternatives as a trial for say a month. First establishing a baseline weight, sometimes lending them a BP machine to facilitate feedback. A hint; instead of being too prescriptive about exercise it helps to ask ‘if you were to do more exercise what would suit you best?’ Also at review be sure to ask how this is going as it’s a chance for positive feedback.

**Type 2 diabetes is another condition that rewards more thought around causation and patient empowerment.**

After I joined my GP practice in 1986 we did a survey of our patients with type 2 diabetes. There were just 57 cases in a practice of 9,000. In ‘the old days’ we called this either ‘sugar diabetes’ or ‘maturity onset diabetes’ to reflect the facts that it usually developed first in the mid-60s or later; and that sugar was agreed to be part of its causation. At that time we had no patients with type 2 diabetes under the age of 50. Now, 30 years on, we have 21 patients under 50 (whose average body weight is a worrying 17.5 stones). The youngest is 34. I have seen greater than a six-fold increase in prevalence of diagnosed diabetes with well over 400 patients now having type 2 diabetes! Something has changed; it cannot be my patients’ genes, only a changed environment acting upon a genetic predisposition can account for it. Four years ago I had no idea why this was, or that anything could be done to halt the associated epidemic of obesity that was so obvious, and in younger and younger patients too.

**Patients are really interested in avoiding drugs like metformin. They are quite prepared to make changes. Giving up sugar and starchy foods can make a huge difference.**

I mentioned earlier the role that belief in lifestyle interventions has had in improving my effectiveness as a GP. Nothing illustrates this better than diabetes. Before, although I referred my patients on to a dietician, it wasn’t done with any conviction that diet could make much difference. But what a difference it made once I had reconnected with the idea that dietary sugar was obviously...
a huge part in the causation of this miserable epidemic. I added in another discovery about the huge amount of blood glucose liberated by the digestion of starchy foods like bread or rice. Now I had a model of causation I really believed in: sugar and refined carbohydrates were the ‘cause’.

Again, when I asked my patients I found they were really interested in avoiding drugs like metformin and were quite prepared to make changes, particularly since my early cases had shown me the huge difference that giving up sugar and starchy foods could make (Unwin and Unwin, 2014).

I came across this quote in a health professional blog recently:

‘I continue to be worried about how the term lifestyle medicine is used to exacerbate the victim-blaming that is endemic within our society.’

I have worried about this too. It’s possible that instead of dealing with the many health inequalities that exist in society we may just blame our patients for not ‘getting a grip’. If I’m really honest when I was young, fit, and slim, this was exacerbated by nasty undertones around ‘lack of willpower’ which I suspected was often a factor. Since then, age and a clinical psychologist wife have taught me a lot about behaviour change, and the benefits of getting to a more adult-adult state.

For me sometimes it helps to start with the patient’s own goals (not my goals for them). For example to have more energy, to come off drugs or to look more attractive.

Then supply tailored information, not advice (which has tones of obligation and is schoolmasterly). For example a single small slice of wholemeal bread has the same effect on your blood sugar as three teaspoons of table sugar. A bowl of rice is equivalent to ten teaspoons of sugar, a small baked potato eight. For someone with diabetes this information is useful in shaping their dietary choices.

Follow up with ongoing support and feedback. My psychologist wife reminds me how important feedback is to behaviour change. The Emis GP computer system generates graphs very easily (see the two examples of patients’ progress above). Patients are delighted to have them home to prove to the family how they are doing.

Of course it’s not always good news. So often after Christmas or a holiday there is a disappointing weight gain. I have learnt not to be unhappy at this but see it as an opportunity for reflection. Try asking what have you learnt from this that you would do differently next year?

I feel general practice is an ideal medium for this approach because of the continuity and mutual trust we have with our patients. Collaborating with patients can be so cheerful and fulfilling. Now at the end of my career I feel I am starting to be a proper doctor at last!

Golden opportunities

As with any relationship picking the best time to make a suggestion to our patients is very important. When are we most likely to be listened to? I would suggest it’s when there is a sudden change in the course of someone’s case. The moment we inform a patient they are hypertensive, diabetic or pre-diabetic, alarm bells are ringing about possible future consequences and so there is far greater attention paid to any information we supply. Similarly when someone previously stable needs an increase in medication there is a sense of slight danger, because most folk are not delighted to take medication and I have found them very open to alternative approaches.

Now as I look actively for these golden opportunities, the list of them is growing all the time but for the present I would suggest anyone with central obesity who also has:

• a new diagnosis of diabetes or pre-diabetes
• an abnormal blood pressure result
• mild to moderate arthritis of the knees
• abnormal liver function (Unwin et al, 2015) (but denying abnormal alcohol intake and not on enzyme-changing drugs)

I feel general practice is an ideal medium for this approach because of the continuity and mutual trust we have with our patients. Collaborating with patients can be so cheerful and fulfilling. Now at the end of my career I feel I am starting to be a proper doctor at last!


Unwin DJ (2014b) Rebranding lifestyle advice as a ‘meta-intervention’. BMJ 349: g7255. Available at: www.bmj.com/content/349/bmj.g7255/rr-796987 (accessed 30 August 2016).


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Lifestyle medicine

Rob Lawson
General and Lifestyle Medicine Practitioner;
Director and owner of CORE HEALTH

My interest in lifestyle determinants of disease began at least 28 years ago. The penicillin of what is now called lifestyle medicine is represented by the management of stress, nutrition and activity. As an NHS GP, only by setting up a registered charity delivering activity classes around my county for people with long-term conditions, was I able to deliver what I considered to be an essential component of holistic and preventive healthcare.

Most of the doubling of life expectancy over the last century or so has been due to improved nutrition, housing, hygiene, clean water and sanitation. However, we now face a pandemic of chronic (or lifestyle-related) diseases (LRDs). The major causes of chronic diseases are lifestyle related and if these risk factors were eliminated, at least 80% of all heart disease, stroke and type 2 diabetes and over 40% of cancer would be prevented (WHO 2016).

Chronic metabolic inflammation

Pasteur’s germ theory led to cures for infectious diseases. Until now, chronic disease epidemiology has lacked a similar single-cause focus. However, according to Gokhan Hotamisligil at Harvard, a form of low-grade, systemic, and chronic inflammation (metaflammation) underlies many, if not all, chronic diseases. The animal metabolic and immune systems are so essential for survival that these systems evolved a long way back. Consequently these nutrient- and pathogen-sensing systems are highly integrated and their proper functioning is interdependent (Hotamisligil 2006). The failure to co-ordinate this central homeostatic mechanism leads to a cluster of chronic metabolic disorders, particularly obesity, type 2 diabetes and cardiovascular disease.

Anthropogens

Garry Egger, Director of the Centre for Health Promotion and Research in Sydney and Professor of Lifestyle Medicine and Applied Health Promotion at Southern Cross University, has called the main disrupters of this system anthropogens (Egger et al 2015), defining them as man-made environments, their by-products, and/or lifestyles encouraged by these, some of which are detrimental to human health. A broad classification of anthropogens associated with chronic disease can help us focus the practice of lifestyle medicine and could in time shift medical thinking (and our whole culture) towards what needs to be done to bring about real improvement in healthy life expectancy.

The anthropogens proposed by Garry Egger et al can be grouped under the acronym NASTIE ODORS. The grouping is reproduced with his permission.

Nutrition (over and under)

Excess energy intake, even of healthy foods can be pro-inflammatory and this tendency is made worse in foods that have been refined or processed. The hazards of obesity and the benefits of fat loss are well established. Inadequate and/or over-nutrition account for a significant proportion of risk for chronic conditions like vascular disease, type 2 diabetes and certain cancers. Studies have reported increased risk from excessive amounts of total energy, sugars, salt, alcohol, and (saturated and trans) fats, as well as inadequate levels of fibre, fruit, vegetables and certain nutrients. Levels of processing have been proposed as a general indicator of risk, and there appears to be a clear

Lifestyle medicine is branch of evidence-based medicine in which comprehensive lifestyle changes (including nutrition, physical activity, stress management, social support and environmental exposures) are used to prevent, treat and reverse the progression of chronic diseases by addressing their underlying causes. An easier explanation is one which my patients understand. Rather than continuing to mop up the overflow from a bathtub, lifestyle medicine is about trying to turn the leaking tap off.
‘metaflammatory’ spectrum from natural, whole foods to ultra-processed foods and fluids.

**Activity/Inactivity**
This has been linked to over 35 different diseases, and we know too that aerobic activity, increased flexibility and balance all enhance quality of life.

The lack of regular, extended, physical activity is a significant driver of chronic disease in modern societies, with links to numerous common chronic conditions. Many social and cultural factors encourage a lifestyle of inadequate exercise and work-related movement. Excessive sitting may have an independent negative effect.

Weight gain is often a consequence of inactivity and over-nutrition, but inflammatory processes can occur without obesity suggesting these are independent determinants of disease.

**Stress, anxiety and depression**
Sustained activation of the hypothalamic–pituitary–adrenal (HPA) axis is unhealthy.

While no doubt existing in all human societies, the seasonal affective disorder (SAD) phenomena appear to have risen to epidemic proportions in modern western cultures. Chronic psychological stress has been shown to trigger pathological pathways such as meta-inflammation. The link with heart disease and other chronic ailments is increasingly understood and interventions aimed at reducing or managing stress as a precursor are high on the list of lifestyle and behavioural prescriptions at the primary care level.

**Technopathology**
This varies from the effects of war, motor accidents, loud music, radio frequency radiation to Facebook-linked depression and RSI.

Changes in society invariably lead to changes in the types of diseases in those societies. Although not (yet) a widespread, or accepted term, technology-induced pathology is a way of categorising the ill-health effects of certain aspects of modern technology. It explains trauma from hi-tech warfare weaponry, motor vehicle or machinery use at one extreme, to auditory problems and changes in brain chemistry from extended computer and small screen use at the other.

The increasing use of technology can also alter other behaviours such as nutrition (snacking) and reduced physical activity (TV, computer usage). However, technology also has the potential to be part of the solution in chronic disease management.

**Inadequate sleep**
At some point 80% of us have suffered this. The impact of sleep disturbances – hypopnoea as well as insomnia – is under-rated by doctors.

“The impact of sleep disturbances – hypopnoea as well as insomnia – is under-rated by doctors”

Our internal (circadian) clock – regulated in the suprachiasmatic nucleus, a tiny region of the brain in the hypothalamus – controls the timing of sleep and wakefulness as well as many physiological functions. An interruption of this chrono-biological systems is linked to metabolic disorders and chronic diseases. Poor sleep may be one of the most under-recognised lifestyle determinants of chronic disease epidemiology. The practice of going to sleep and waking up at ‘unnatural’ times has been described as the most prevalent high-risk behaviour in modern society and has been termed ‘social jetlag’. This can result not only from sleep disorders, but also more from late night leisure activities, entertainment, drug use, and many aspects of modern life, perhaps especially late night screen use. It links closely with other determinants such as poor diet, fatigue and inactivity and acts as a stressor leading to anxiety and depression.

**Environment**
This includes physical, economic policy and socio-cultural environments. In addition the impact on our in-vironment of pollutants and endocrine-disrupting chemicals (EDCs), though hard to quantify scientifically, is almost certainly significant.

The impact of EDCs is widely unacknowledged despite growing evidence that they contribute to reproductive disorders, immune and auto-immune disease, cardio-pulmonary disease and disorders of the brain and nervous system. Children are the most vulnerable to these impacts (Bergman et al 2012).

The social, economic and political environments play an obvious role in maintaining these pathologies. The intra-uterine environment is increasingly recognised as having a long-term effect on health. Adverse childhood experiences make a lifelong impression on resilience and susceptibility to mental and physical health.

“Keep me away from the wisdom that does not cry and the philosophy that does not laugh and the greatness which does not bow before children.” (the Prophet, Kahlil Gibram)

**In-vironment**
This is a novel concept aimed at recognising that various newly discovered internal ecologies may be playing an important part in chronic disease. The microbiota is the ecological community of commensal, symbiotic and pathogenic micro-organisms that share our body space. The gut microbiota (formerly called gut flora) is the microbe population living in our intestine. Our gut
microbiota contains tens of trillions of micro-organisms, including at least 1000 different species of known bacteria with more than 3 million genes (150 times more than human genes). They are essential for proper digestion including the breakdown of complex carbohydrates, dietary fibres, production of short chain fatty acids and synthesis of some vitamins. Micro-organisms in the gut also secrete a number of chemicals, among which are the same substances used by neurons to communicate and regulate mood, like dopamine, serotonin and gamma-aminobutyric acid (GABA). Because the intestinal microbiota influences many of our metabolic functions it has implications for the susceptibility to chronic diseases and obesity.

Meaninglessness

Perhaps not unexpectedly, meaning or purpose in life has been linked with better long-term health and healthcare behaviours. People with more purpose in life, for example, have been found to have better patterns of healthcare use, which might explain why they are known to have better health.

The reasons for the effect of meaninglessness on health outcomes are multiple

Meaninglessness, learned helplessness or hopelessness are all associated with persistent elevated cortisol levels, raised inflammatory markers and cardiovascular disease. The reasons for the effect of meaninglessness on health outcomes are multiple but probably contribute to the poor health associated with social deprivation/poverty. Whatever the link, we do know that 32% of the attributable risk in heart attacks is due to psychosocial issues. On the other hand, those at risk who escape meaninglessness have been shown to have a social cohesion and resilience: they can make sense of what is happening to them and can respond.

Alienation

Alienation, or estrangement, can result from many factors – discrimination, social isolation, rejection, or adverse childhood experiences (ACEs). It can be the result of separation from friends, family, peers, society or man-made and natural disasters. It may reflect social isolation early in life and social inequality. Emotional distress and loss of control may be mediating factors in the recognised link between alienation and adverse cardiac events.

‘Let me at the onset define what I mean by alienation. It is the cry of men who feel themselves the victims of blind economic forces beyond their control. It’s the frustration of ordinary people excluded from the processes of decision-making. The feeling of despair and hopelessness that pervades people who feel with justification that they have no real say in shaping or determining their own destinies.’ Jimmy Reid, 1972

Loss of culture/identity

Loss of culture and/or identity are significant factors in displaced Indigenous and First Nation populations, confused identity around sexual orientation or in the wake of family disruption. It can also occur as a result of warfare or natural disasters where cultures are either wiped out or relocated from areas they have inhabited for generations. Despite the paucity of data on this in the health literature, there are indications of connections with chronic disease outcomes in several population groups.

He who has a why to live, can bear almost any how

Friedrich Nietzche

Occupation

Taken broadly to include ways of occupying one’s time – habits, hobbies and interests – ‘occupation’ on the one hand can influence health directly through injury (such as a sport) or repeated exposure to toxins. Occupational hazard may also act through less direct processes: shift-work effects on physiological function, or ‘burnout’ and economic insecurity relating to employment status. These factors interact with other anthropogens such as stress, meaninglessness and relationships, and their link with metaflammation. Changes in the nature and security of work in the modern world mean that both the physical and psychological components of occupations and interests need to be considered part of a lifestyle/environmental perspective on health.

Drugs, smoking and (excessive) alcohol

Drugs, both legal and illicit, prescribed and non-prescribed are responsible for significant and increasing morbidity and mortality. Iatrogenic disease is a major killer – unintended though it may be. Tobacco smoke is a proven toxicant with over 300 chemicals and links with cancers, heart disease and respiratory problems. Tobacco control in most modern western countries however has been one of the big success stories of health promotion and lifestyle medicine. Alcohol is rather more complicated: it has possible benefits at low doses, but excessive and binge drinking cause chronic problems such as liver disease, and negative behaviours that lead to injuries and domestic violence.
Over- and under- exposure

The biochemical reactions that support life are complex and often non-linear. So too are the interactions of chronic disease risk factors such as blood pressure, lipid levels and body composition. This can confuse and hinder our understanding and lead to misconceptions about risk and disease management. A certain amount of physical activity or sleep, for example, is considered healthy (and reduces the risk for chronic diseases), whereas overdosing or underdosing clearly increase chronic disease risk.

Exposure to ultra-violet radiation (UVR) from sunlight follows a similar ‘U’ or ‘tick-shaped’ (non-linear) relationship with health. UVR is a carcinogen and a major determinant for several forms of skin disorders. Overexposure to heat and dryness (low humidity) is also thought to have adverse effects on the skin. Underexposure to sunlight on the other hand can lead to vitamin D deficiency, and in some instances Seasonal Affective Disorders (SAD).

Relationships

The quality of personal and social relationships is clearly linked to chronic disease outcomes including heart disease, stroke, some cancers, and all-cause mortality. Adverse childhood experiences (ACEs) and loneliness are in this category as well as in environmental exposures and alienation. As yet, the causal pathways are unclear, but meta-inflammatory processes have been associated with poor social support and social support is thought to alleviate inflammation associated with childhood adversities (Runsten et al 2014). Improving awareness of the importance of social support and assisting access to such support should be integral to chronic disease management.

Social inequality

Gaps between the rich and poor in a nation or community add to the effects of poor inter-personal relationships on chronic disease as illustrated by epidemiological studies using relative income differentials within and between countries. The mechanisms remain unclear but metaflammation appears again to play a mediating role in chronic diseases associated with such inequality.

Now if, by definition, these anthropogens are man-made then surely they can be man-unmade- but not in a ten minute GP appointment in the UK. The key to making any impact on the tsunami of long-term lifestyle-related diseases, and the rise in acute infections which is also heading our way, will be to tackle these determinants at source. We must deal with the causes and the causes of the causes.

Diagnosis in lifestyle medicine is focused on the underlying mechanisms and determinants of disease rather than the disease itself. Most chronic diseases share common mechanisms, (such as metaflammation (Gregor and Hotamisligil 2011)) and signs in clinical practice (such as elevated inflammatory markers). Addressing these factors can improve risks for several diseases. For example, obesity is a function of energy imbalance, but energy intake (food and drink) and energy expenditure (metabolism, physical activity) can be influenced by a range of other, less obvious, factors, which need to be considered in any systems-model approach. Stress, for example, can influence (positively or negatively) energy intake and metabolism, as well as activity levels. Inadequate sleep can lead to low activity levels during the day, which then impact on diet and relationships and which can ultimately effect body weight outcomes.

The key to making any impact on the tsunami of long-term lifestyle-related diseases... will be to tackle the determinants at source. We must deal with the causes and the causes of the causes.

Prescription in lifestyle medicine may involve pharmaceutical as well as non-pharmaceutical interventions, although medication is most often an adjunct to a therapeutic lifestyle intervention (TLI, behaviour change), rather than the primary treatment. Medication is aimed primarily at disease or risk-modification, whereas long-term management relies on upstream lifestyle change.

It is important to share a full understanding with your patients of their health risk and the potential benefit (in terms of the numbers needed to harm (NNH) and numbers needed to treat (NNT). Charts, diagrams or online quizzes (eg www.mayoclinic.org/diseases-conditions/heart-disease/in-depth/heart-disease-risk/itt-20084942 can be useful motivators.

De-prescription

The over-use of medications and multiple prescribing have become so common in affluent societies, particularly in the elderly, that de-prescribing techniques are needed. We may soon have to help patients reduce their meds either because they are not benefitting from them or are actively
causing harm. Such skills are likely to become a standard procedure in managing chronic diseases in the future.

The process of de-prescribing is faced with many challenges for GPs. The uncertainty of research evidence in older people and social factors such as specialists’ and nurses’ influences were among the major challenges identified. De-prescribing enabled encompassed support for GPs’ awareness and knowledge, improvement of communication between multiple prescribers, adequate reimbursement and pharmacists being involved in the multidisciplinary team (Alabouni et al 2016).

**Motivational skills**

While all the usual counselling skills such as motivational interviewing, health coaching, interpersonal relationship training, cognitive behaviour therapy, self-management training are necessary in lifestyle medicine, they may not be sufficient for dealing with the behaviours and the environments which are driving chronic diseases. Management may therefore require different procedures, such as group education.

Changing behaviour is challenging for anyone (for doctors no less than patients). As doctors we need to be convinced of the evidence for taking on the challenge; that the science is robust, which it is. The change journey has to move someone from the extrinsic motivation of superficial, short-lasting pleasures (hedonia) to the kind of intrinsic motivation where there develops a sense of satisfaction, meaning and purpose (eudaimonia) in regaining overall wellbeing and achieving longer-term goals. As doctors we are important players in this – if we recognise the science as being robust, which it is.

**Shared medical appointments**

The tools for delivering lifestyle medicine include brief interventions in the 1:1 consultation that GPs are used to. But there is another way: an approach that improves outcomes for individuals, especially but not exclusively for those of low health literacy, in a meaningful and engaging way. What’s more it’s a way of doctoring that clinicians actually find enjoyable. Once undertaken, colleagues have declared themselves hooked! Shared medical appointments (SMA) (Lawson 2016) have been known by other names – group consultations are mentioned in NHS England’s Forward View document. But when selling it to patients, ‘group consultations’ had more of an appeal.

As the rise of chronic 21st century lifestyle-related diseases (LRD) continues unabated, alternative ways of managing them will have to be subject to rigorous testing and over-diagnosis and over-prescription.

"Shared medical appointments are a way of doctoring that clinicians actually find enjoyable. Once undertaken, colleagues have declared themselves hooked!"

Professional associations for Lifestyle Medicine are already active in the US, Europe, South America, Australasia and are being developed in other countries. Post-graduate specialties are currently offered in a number of universities. Yet apart from recognising lifestyle and behavioural factors in disease, the field has yet to develop its own pedagogy. If it is to have a place in the NHS, its contributions to existing care needs to be promoted. To this end a British Society of Lifestyle Medicine is forming and it welcomes would-be members who want to join with others to advance the principles of lifestyle medicine.


Social prescribing in action: Bristol’s Kitchen on Prescription Alliance

Helen Cooke
Nutrition lead, Portland Centre for Integrative Medicine

Elizabeth Thompson
CEO, Portland Centre for Integrative Medicine

We are living longer but rates of long-term health problems such as diabetes and obesity are soaring. If in response our national diet has to change, cookery education could become part of mainstream healthcare. A group of doctors, nutritionists and cooks in Bristol have created a motivational healthy eating cooking course. It is an example of a new wave of ‘social prescription’ options aimed at supporting positive change rather than just giving pills. The course is for prevention and intervention as well as people who just want to stay well.

I’m a nutritional therapist (BSc) with a nursing and complementary health background, running two busy nutritional therapy clinics alongside my work at the Portland Centre for Integrative Medicine (PCIM). I’ve had the pleasure of working in a variety of whole-person healthcare settings (including several years at Penny Brohn Cancer Care) which includes nutrition as part of its recommendations. I was also national lead of the College of Medicine’s Innovations Network (2012–15). I’m delighted to be project managing Kitchen on Prescription (co-ordinated by PCIM) as it’s making a dream of mine a reality – making food part of mainstream healthcare.

Helen Cooke

I am a holistic doctor living and working in Bristol at the new Portland Centre for Integrative Medicine, a community interest company set up to support and inspire a broad range of holistic services within mainstream healthcare. I was strategic lead for the Bristol Green Capital Kitchen on Prescription project and the feasibility research and am Honorary Senior Lecturer in the Department of Social and Community Medicine in Bristol University.

Elizabeth Thompson

Background

It now looks like a healthy diet can play a key role in the prevention and treatment of chronic illness. However, a variety of factors including the growing reliance on processed food is preventing people of all social backgrounds from following the healthy eating advice available to them. One such challenge is weak cooking skills and the need for greater practical knowledge about how to eat healthily on a budget.

The NHS faces serious challenges as people live longer and as chronic health conditions such as diabetes and obesity increase. In England 15 million have one or more long-term conditions, predicted to rise to 20 million by 2020. The pressure this is having on the health system is immense – people with long-term conditions take up 50% of all GP appointments and 70% of inpatient bed days, and account for 70% of the primary and acute care budget in England.

In light of these figures, we need to rethink how these long-term conditions are treated. One approach being advocated is a focus on self-care or self-management approaches that aim to empower patients to improve their health through their own actions.

In response to this challenge, a group of medical, nutritional and culinary professionals across Bristol are working together to bring cookery education into mainstream healthcare. The initiative is called Kitchen on Prescription (KOP). KOP is a ‘socially prescribed’ healthcare intervention that enables healthcare professionals to refer people with a long-term condition to a motivational healthy eating cooking course. It can also be used as a preventative intervention for people who want to stay well and those at risk of developing a health condition.
The KOP model has been developed and delivered over several years in several centres across Bristol, with similar initiatives being delivered in particular in Wellspring Health Centre in Barton Hill, Hartcliffe Health & Environment Action Group (HHEAG) in Hartcliffe and Knowle West Health Association.

Throughout 2015, funded by a Bristol European Green Capital Grant, the Portland Centre for Integrative Medicine has been collaborating with a variety of community food and other professionals/organisations with the ultimate aim to deliver KOP across Bristol as part of a social prescribing model. Bringing in psychological as well as nutritional expertise has been a key innovation as has developing a KOP curriculum which could be delivered across a broad range of communities. This project has involved a wide variety of activities including the development of an academic feasibility study in collaboration with the University of Bristol.

KOP aims

Courses have a strong focus on achieving long-lasting behavioural change. They last between six and ten weeks and contain three key elements of nutritional, culinary and psychological input.

Content includes:
- practical experience in cooking affordable, quick/easy to prepare nutritious food from scratch (the group usually eats together at the end of each session)
- discussions around healthy eating (input from either a nutritionist or experienced community food educator), meal planning, portion size/food label advice
- culinary skills
- psychological support (with input from a psychologist or experienced community food educator) with the aim of helping participants to overcome obstacles and promote long-term behaviour change.

Bristol Kitchen on Prescription Alliance

One of the key successes of the last 12 months has been collaborating with other community food initiatives across Bristol. In early 2016 we created the Bristol Kitchen on Prescription Alliance (BKOPA) [members listed on page 24] with the aim of developing a pan-Bristol (pun intended!) KOP offer within a social prescribing framework underpinned by quality best practice standards (currently in development).

Our purpose is to:
- work towards a shared vision of making food part of a mainstream healthcare offer
- co-create KOP best practice guidelines (to ensure KOP courses are a ‘recognisable’ intervention and adhere to a quality standard)
- share learning/resources/protocols
- jointly create monitoring and evaluation tools and to jointly pool data
- jointly raise the profile of individual providers/organisations in the health care arena
- ease referral to KOP courses for healthcare professionals (including mapping of providers.)

Social prescribing

A review of the evidence base for social prescription suggests that it increases people’s confidence, provides opportunities to build social networks and increases self-efficacy, and that it can increase people’s engagement with weight loss and exercise programmes. GPs recognise the social prescribing mechanism as a valuable part of their practice, particularly the emphasis on the strengths of patients to tackle their own problems themselves.

We have been working with the Bristol public health team and Richard Kimberlee (Senior Research Fellow at the University of the West of England) and KOP is now recognised as a social prescribing intervention by the Bristol public health team.

Activities: pilots/evaluation and research

Throughout 2015 and early 2016 we have been busy running and evaluating four pilot projects.

Two standard KOP courses open to anyone (Portland Centre for Integrative Medicine/Southmead Development Trust and Hartcliffe Health and Environment Action Group) and two with a specific focus – childhood obesity (Square Food Foundation/All About Food) and mental health (Knowle West Health Association).

Details of the pilots including a snapshot of evaluation and research are included below.

Portland Centre for Integrative Medicine/Southmead Development Trust pilot

The pilot Kitchen on Prescription course ran between May and July 2015 at the Greenway Community Centre in
Southmead, and was marketed for people suffering from diabetes or other long-term conditions. A pop-up kitchen was used in the design of this course as there were existing kitchen facilities extended by funding a range of cooking stations and utensils. We could therefore test out the functionality of a pop-up kitchen and whether this could be rolled out in other sites across Bristol if the KOP initiative was to be funded within a social prescribing model. The course ran for 6 weeks with 13 participants.

The majority of participants were referred by healthcare practitioners and all participants (except one) stated they had a long-term condition (eg cancer, polycystic ovary syndrome, diabetes, back pain).

We evaluated the course using both an in-house evaluation form and Measure Yourself Concerns and Wellbeing (MYCaW) a validated patient-centred outcome measure. The data and feedback from this course suggests a positive reaction to the course and that it supported a change in cooking and eating habits. A good MYCaW result was obtained suggesting a positive shift in concerns and wellbeing in a relatively short amount of time.

The main things participants felt they had got out of course included:

• fun cooking with others: 7/9 (top rated comment)
• learnt about nutrition and what a healthy diet means for me: 5/9
• learnt how to cook good food on a budget: 4/9
• improved my cooking skills: 4/9
• improved my sense of wellbeing: 4/9
• feel more confident about cooking from scratch: 3/9.

Areas to improve included:

• ‘Be in a more contained space (as you know!). Sometimes felt as though we were in a zoo!’ [The course was conducted in an open plan café using ‘pop-up’ kitchen equipment].
• ‘Felt rushed at times, would have liked more time to ask questions during demos. More 1:1 to discuss own health issues.’

Hartcliffe Health and Environment Action Group (HHEAG pilot)

A further KOP 10-week pilot course ran in May 2016 with seven participants.

Changes that occurred from the evaluation forms (one person did not complete the evaluation) included:

• four out of six said their cooking skills improved
• one showed an improvement in terms of perceived support, four remained the same, and one felt they had less support.
• all six said they had met their goals for the course
• five showed improvements in their food choices and one remained the same.

The social element was very important for this course as well as for the Southmead pilot. One woman reported that she had not left the house alone for four years until attending this course.

Quotes from the benefits section of the evaluation form included:

• ‘very good for socialising’
• ‘meeting new people and making friends’
• ‘it has got me out of the house more often and introduced me to the walking group’.

Community food educator Alex Burr who led the course says:

‘I found having a nutritionist and a clinical psychologist in the room very useful. Between us, the scope for developing conversation around food and physical/mental health was greater.

‘From my experience with other groups, there was much to be learnt from this pilot. The resources the psychologist provided were an excellent framework to start consistently referencing goals; I will start to implement this in sessions along with mindful eating.’

Feasibility study at the Square Food Foundation

In April 2016 we ran a feasibility study to evaluate a new KOP programme, 'Nourish', to help families with an obese child learn how to cook healthy food from scratch, based at the Square Food Foundation. The course was led by Barny Haughton and Francine Russell (community food educator from All About Food). It aimed to help families to learn cooking skills and to overcome any barriers they face to healthy eating and was intended to be ‘prescribed’ by GPs.

Childhood obesity poses a serious health challenge in the UK, and multi-component behavioural family lifestyle interventions are recommended. It’s clear that cooking skills interventions can improve dietary habits and weight, but evidence is limited.

The study was funded by an Awards for All lottery grant and the National Institute for Health Research (NIHR) Bristol Nutrition Biomedical Research Unit based at University Hospitals Bristol NHS Foundation Trust and the University of Bristol.

Four focus groups were conducted with 23 primary care practitioners to explore their views on childhood obesity and their role in obesity and healthy eating, as well as obtaining feedback on the proposed
intervention. Focus groups and interviews were held with six families to explore their eating, cooking and shopping habits, and their thoughts on the proposed intervention. Three of the families took part in a pilot ‘Nourish’ cooking-from-scratch course, which lasted six weeks (with a follow-up session) and was group-based, practical and involved the whole family. It had three key strands: culinary, nutritional and psychological support. Data was collected using online food diaries, photos of meals, and a self-efficacy questionnaire, to test the acceptability and feasibility of the outcome measures.

Interviews with the families after the course explored their experience of taking part in the course and the research study.

Recruitment of families was extremely challenging; the most successful method was recruiting participants from a previous similar weight management course. Facebook showed some promise. Pre-course, families were generally confident at cooking from scratch and ate meals together as a family. The main barriers to cooking from scratch were time and fussy children. The course addressed both these barriers to some extent. Other barriers included cost and family illness, which were not fully addressed by the course. Families did enjoy, value and adhere to the course and felt that children were very well involved in the cooking, although staff observed a lack of parental engagement during the course. Suggested changes to the course were a wider range of dishes, listening to children’s wishes, addressing cost, and removing any reference to obesity/weight.

Comments from course participants (mothers)

‘They [kids] loved it, they really did enjoy it.’

‘M wouldn’t let me [not go], she’s like, “are we going this week mummy? We have to go”. Yeah, she loved it.’

‘I wonder if it would be better, you know, as more promoted as just something fun rather than educational, nutritional, psychologists involved, you know, everyone can learn to cook with your kids, come and have a taster session first and get them in … and then throw all the stuff at them [about weight].’

Primary care practitioners recognised the local prevalence of obesity and factors associated with this. However, many felt that GPs were not responsible for obesity/healthy eating, which was seen as a public health issue. GPs felt unable to discuss obesity with families due to patients’ denial and their perceived criticism, and the emotional nature of the subject. A major barrier to dealing with childhood obesity was that children do not present in primary care, particularly not with obesity. Practitioners suggested that rather than accessing the course via the GP it should be advertised in schools, waiting rooms, and via parents who are obese.

Comments from primary care practitioners

‘There may be a good percentage of people who might take it up and it might change their life, so please don’t stop trying.’

‘I think there’s a huge need for something, because generally diets and lifestyles are terrible.’

‘Sometimes obesity or poor eating can occur in the context of personal chaos, and then I think it’s understanding how you help a family for whom eating may be one of the least of their problems. It may just be symptomatic of what one would call poor lifestyle hygiene, you know, families that don’t really eat together, don’t have any routine, household chaos, all that kind of stuff.’

In terms of feasibility of the research study, the food diaries and photo methods of data collection do not appear to be feasible, due to issues with email and internet access, lack of time or forgetting, and involving the whole or extended family (with children who live in different households during the week). More useful alternatives may be a written food diary or a mobile phone app. For the photos more instructions and reminders are needed, perhaps just before families’ mealtimes. The self-efficacy questionnaire was acceptable and feasible.
The main implications for the intervention are that social prescribing by GPs may not be feasible, and the focus on obesity and being overweight should be removed. The design and content of the course was appropriate and appeared to impact dietary habits (although our data is very limited). More emphasis on eating healthily cheaply is needed, as well as incorporating children’s preferences, and with a longer course it was felt that changes could be more easily embedded into everyday life. There is clearly a need for further feasibility work before a trial is carried out, in particular to explore recruitment, referral, data collection methods and involving the child’s wider family.

**Knowle West Health Association Food and Mood KOP**

The last pilot course we ran this year was a six-week ‘Food and Mood’ course. Seven people enrolled (five with mental health issues, one with irritable bowel syndrome). Six attended regularly and reported significant benefits from attending.

Comments from participants on their hopes for the course and whether achieved included:

• improve my cooking skills: 6/6 [fully achieved: 4/6, partly achieved: 2/6 ]
• increase my self-esteem: 3/6 [fully achieved: 3/3]
• meet new people: 4/4 [fully achieved: 4/4]
• improve my own health 5/6 [fully achieved: 4/5, partly achieved: 1/5]
• improve the health of my family: 5/6 [fully achieved: 2/5 partly achieved: 2/5 not achieved: 1/5].

The data and feedback from this course suggests a positive reaction to the course, including encouraging Measure Yourself Concerns and Wellbeing questionnaire responses.

**Comments from course participants**

‘I felt my mood needed improving. I have learnt a lot and love all the recipes. My eating habits are changing and definitely becoming more healthy and feeling better for it. I am now doing the recipes at home, it’s a great course!’

‘I have achieved things and know how to do stuff – I’ve got new ideas and motivation – it’s really helped me to save money.’

‘I’ve got all my recipes in a folder on the table at home and I’m going to show mum to bond with her.’

**Future activities**

We have had a very informative year and learnt a lot from the pilots. The challenge is to explore whether we can deliver enough courses through the network to provide KOP as a mainstream health offer across Bristol. The Bristol KOP Alliance is seeking funding with the aim of rolling KOP out across Bristol, evaluating the social and health impact of the intervention and if possible looking at pilots outside the Bristol area with a view to KOP becoming a UK-wide initiative. It’s not clear how soon or if social prescribing such as KOP will be funded by clinical commissioning groups, but judging by the results of these initial pilots there appears to be a clear need. If you are working in a similar field and would like to discuss piloting a KOP course at your project, please get in touch:

helen.cooke@portland-centrehealthcare.co.uk

*BKOPA members:
All about Food, Co-exist Kitchen, Food Inside Out, Hartcliffe Health & Environment Action Group, Knowle West Health Association, Lawrence Weston City Farm, Penny Brohn Cancer Care, Portland Centre for Integrative Medicine, Southmead Development Trust, Square Food Foundation and Wellspring Healthy Living Centre.
Nurturing health with traditional herbal medicine

Sebastian Pole
Co-founder and Herbal Director, Pukka Herbs

As well as formulating all our organic products, I have run my own herbal practice in Bath since 1998. I’m a registered member of the Ayurvedic Practitioners Association, Register of Chinese Herbal Medicine and the Unified Register of Herbal Practitioners. All this with the aim of using the principles of Ayurveda (the ancient art of living wisely) to help create positive change and positive health. Inspired by my time in India, I love cooking a vegetarian feast and rely on regular yoga practice and herbal supplementation to keep me well. I am passionate about running a business that inspires positive change and brings the benefit of the incredible power of plants to everyone we connect with. I live on a two-acre garden-farm in Somerset where I grow a rainbow spectrum of medicinal and nourishing plants for my bees and family to live from.

The growing threats to our biosphere urge us to reflect on how we care for our people and our planet. This article looks at how traditional medicine can contribute more fully to sustainable healthcare and be more widely used in the medical community. It will explore some connections between Ayurvedic theory and modern scientific understanding and seek some common ground on which to base practical collaboration and potential solutions.

‘By knowing one science alone one cannot arrive at a proper conclusion. Therefore a physician should study other sciences in order to arrive at a correct diagnosis.’
Sushruta Samhita (a major Ayurvedic surgical text from circa 100CE)

Traditional medicine systems (Traditional Chinese medicine or Western Herbal Medicine or Ayurveda) look at health and disease in ways that are alien to the way the scientific mind views the world. While the traditional herbalist, rather like a good gardener, is concerned with the health of a whole interrelated ecosystem, the modern doctor is more like a mechanic who sees disease as the breakdown of parts of a very intricate machine. Whereas Ayurveda perceives the body as a matrix of interconnected channels and systems, modern medicine focuses on the detail – even down to the biochemical and genetic level; Ayurveda on the other hand excels at taking in the whole picture. If we follow the advice of the great surgeon Sushruta, and listen, perhaps each perspective could make the horizon of the other clearer.

If Descartes and Dawkins are champions of theory, Einstein, Bohm and Goethe put great value on observation. Because we can all observe ourselves, each one of us is potentially an important scientist; but only if – as traditional health systems such as Ayurveda teach us – we refine our senses and can read the language of nature. The insights of great observers who did this revealed the benefits of plant medicines long before any chemical basis was discovered: a plant like ginseng (Panax ginseng), surviving through the harshest winters, can bring us warming strength because of its potent steroidal saponin activity; aloe vera (Aloe barbadensis), thriving in the hot desert, can soothe our burns (because of its polysaccharides); cinnamon (Cinnamomum aromaticum) thrives in the humid jungle, and its drying heat can help protect us from cold-damp obesity because its volatile oils help regulate insulin metabolism; sweet elderberry fruits (Sambucus nigra) help get us through the winter by uncoupling viral neuraminidase action.

It seems that understanding more about how plants adapt to extreme

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conditions can tell us a lot about their beneficial health properties. Observing qualities in nature, rather than just measuring and weighing her, teaches us how important our perception is; that our life is ours to perceive. And as we experience the power of self-awareness and our connectedness with nature we may come to place of awe and wonder, at the fact that life is a community. Then the story of life shifts from being about selfish genes to one of sharing and reciprocity; of life as part of the wholeness of the universe.

A health balance

All biological systems must strive for homeostasis; the processes of self-regulation that all organisms maintain themselves. Both Ayurveda and modern physiology recognise that health requires the balance and regulation of the internal systems. In Ayurveda the goal is the equilibrium between the constitutional dosha, the seven tissues, the digestive fire (agni) and the bodily wastes. Significantly, the Ayurvedic word for health (swastha) means ‘to be established in your self’. Whereas for modern medicine this regulation is achieved through means ‘to be established in your self’. Whereas for modern medicine this regulation is achieved through chemical pathways and feedback, Ayurveda attributes it to the working of the humoral processes of vata, pitta and kapha. Both ways of looking at regulation have their place. If we know how and when to use one or the other paradigm we may better learn to serve the healthy and the ill.

Elemental healing

Surprisingly, modern science and Ayurveda share the view that all matter is composed of certain basic building blocks. For science this is the atoms and molecules. Atoms have a nucleus, protons and electrons and when they combine they make the countless different molecules that form all kinds of matter whether solid, liquid or gaseous, depending on temperature and pressure.

In Ayurveda five ‘elements’ (panch mahabhuta) are said to combine in different proportions to make up the material universe and all living organisms.

<table>
<thead>
<tr>
<th>The five primordial elemental states</th>
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<tbody>
<tr>
<td>Space/ether</td>
</tr>
<tr>
<td>Air/motion</td>
</tr>
<tr>
<td>Fire/heat</td>
</tr>
<tr>
<td>Water/fluid</td>
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<tr>
<td>Earth/solid.</td>
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In addition their equilibrium influences health and disease. For instance their balance determines a food’s nutritional properties and the healing properties of plant medicines.

‘According to Ayurveda all matter is constituted of the five elements (panchah.phpbbhuta). Some parts of matter are animate and others are inanimate.’ Charaka Samhita

The five elements are more like ‘states’ of matter with different qualities, rather than the periodic table’s atomic elements.

- **Earth** qualities are dense and heavy; the substantial neutrons and protons that give mass and substance to an atom.
- **Water** is a connecting and structural quality, the cohesive tendency holding the atom together and helping it join with other atoms to make molecules.
- **Fire** is the tendency towards combustion and metabolism. At the atomic level energy is unleashed when electrons are freed from their orbits. In molecules such as adenosine triphosphate (ATP), energy stored in high-energy phosphate bonds is released when these bonds are broken.
- **Wind** is the quality of motion reflected in the tendency for movement of electrons circulating around a nucleus.
- **Ether** is the subtle element of space, the space that exists in the subatomic emptiness as well as the space between the stars.

Elemental physiology

There are similarities between the concept of the constitutional types (doshas) and modern physiology (see Hankey 2005a).

The three doshas (tridosha)

‘Vata, pitta and kapha move in the whole body producing good or ill effects upon the entire system according to their normal or provoked states. Their normal state is known as ‘natural (prakriti)’ and their abnormal state is ‘unnatural (vikriti)” Charaka Samhita

Every biological system requires three simple functions: information coming in and going out, energy management, and energy storage within a physical structure.

**Vata dosha** oversees the input-output function, carrying food through the intestines, water in and out of cells, gases in and out of the lungs and is responsible for information movement across cell membranes regulating the nervous system and immune system. **Pitta dosha** manages this energy by regulating digestion, controlling metabolism and overseeing the cellular generation of energy.

**Kapha dosha** takes charge of the storage of this energy in the form of fats in the cell membrane and carbohydrates in the cell wall to give lubrication, structure and form to the whole organism.

**Vata**

This master control system is mirrored by the regulatory function of DNA in the nucleus of every cell. **Vata** facilitates and guides the functioning of the cells just as the DNA holds the codes that turn on and off the processes that regulate the organism. At the centre of every atom is...
space, and it is the element of space and air that dominate in vata’s expansive nature. It is vata’s message-transferring tendency that moves information and nutrition across cell membranes. The same principle regulates the movement of information and feedback throughout the whole system. Vata is intimately related to the nervous system.

Vata disorders often involve cold-dryness – the releasing of gas, or creation of spaces and erratic movements. Examples would be digestive gases causing IBS, or osteoporosis causing holes in the bones, or nervous system disorders with erratic spasms and shaking such as Parkinson’s disease. In the context of a full Ayurvedic treatment strategy involving diet, exercise and mindfulness, numerous plants may help these symptoms from black pepper (*Piper nigrum*) assisting nutrient absorption to ashwagandha (*Withania somnifera*) nourishing the nervous system and treating osteoporosis (*Pole 2006*).

**Pitta**

Pitta has the qualities of managing and metabolising. At a cellular level, pitta manifests in the mitochondria that transform raw matter into energy. ATP is the universal currency of energy in the mitochondrial powerhouse and pitta is the powerhouse behind these metabolic functions. Pitta both releases and manages energy. Some physiological activities can be correlated to pitta functioning through the enzymes and hormones that control metabolism. They reflect pitta’s digestive, combustive and developmental functions, functions dominated by the seemingly contradictory elements of fire and water, where water controls the fire from raging out of control.

The digestive functions of pitta are found everywhere from cellular metabolism to the digestive system itself. Just as enzymes are catalysts, so pitta is a metabolic catalyst for the whole system. An imbalance in pitta is seen in gastro-oesophageal reflux disease (GORD), though routinely controlled with proton pump inhibitors, it can often be treated effectively with herbs such as licorice root (*Glycyrrhiza glabra*) and meadowsweet leaf (*Filipendula ulmaria*).

Pitta is implicated where endocrine imbalance manifests as an excess or lack of heat in the body: for example, menopausal hot flushes, from an oestrogen-progesterone imbalance or the coldness of thyroid underactivity. Pitta balancing herbs, such as shatavari (*Asparagus racemosus*) and brahmi (*Bacopa monnieri*), are both known to influence hormone levels.

**Kapha**

Kapha collects in all lipid tissue in the body as it coats and protects the inner organs. At a cellular level kapha gives structure to the cell in the fatty acid phospholipid bilayer of the cell wall. Its predominance of earth and water elements is mirrored in the body’s moistness: in interstitial fluids, intercellular fluid, cytoplasm, synovial fluid, cerebral fluid and the myelin sheath. It also plays an important role as the matrix of connective tissue that links the tissues of the body together. Kapha is the container just as an earthen vessel can contain water: cytoplasm within cell wall, blood and lymph in the vessels, tissues within skin, chyme within gastrointestinal tract and the neurons within the myelin sheath.

These structural and cohesive roles reflect the anabolic and creative kapha tendencies that exist internally. Kapha is about creating, building and holding onto energy. Kapha diseases often involve too much of this ‘holding’ tendency, for example congestive heart disease, high cholesterol levels and obesity are examples of diseases with patterns involving accumulation and congestion (*Hankey 2005b*). Ayurveda treats them using herbs such as arjuna (*Terminalia arjuna*) for heart disease and turmeric root (*Curcuma longa*) for balancing high cholesterol and in managing diabetes.

### The importance of digestive health

Another connection between Ayurvedic theory and modern physiology is the importance of digestion. The functional processes of vata, pitta and kapha are mirrored by the activities of ingestion, digestion and assimilation. For example, if digestion moves too fast (*vata*) food cannot be digested; too slow and it putrefies; too many digestive secretions will burn the stomach and intestinal lining (*pitta*); too little digestive secretions (*kapha*) means that the food is not broken down properly. This link is further represented by the metabolic processes of catabolism, metabolism and anabolism, which help release (*vata*), activate (*pitta*) and store (*kapha*) energy. If any of these processes become either excessive or deficient they lead to disease (*see Tillotson 2001* for further insights into the physiological links between Ayurveda and modern science).

These process are obviously affected by what we eat. The work of Paul Clayton and Judith Rowbotham (2008) describing how our diets have declined in nutritional diversity since the Victorian 1870s exemplifies the value of diversity: About 100 years ago people in this country were eating over 100 species of plants, but for most people today it’s now around 10–20. This means we are no longer bathing our cells in as broad a spectrum of plant protection as we have done throughout evolution, and this lack of nature’s phytochemical health-soup is one of the reasons our health is suffering today.

A recent study illustrating the benefits of a broader plant-based diet carried out by the perfectly named Professor Blanchflower (*Blanchflower et al 2012*) suggested our happiness might be directly connected with the amount of vegetables we eat, apparently peaking at about seven a day. Traditional medicinal systems such as Ayurveda encourage a diverse diet including phytochemically rich digestive spices and herbal teas. There appears to be a simple way to nibble and sip our way to a little more happiness.
Herbs and the microbiome

Herbal medicine’s complex phytochemical components may work indirectly by interacting with the microbiome in our gut. Since many plant compounds are not actually absorbed into the blood stream, they may instead initiate signalling through our own probiotic bacteria so that a chain reaction occurs from herb to gut bacteria to our physiology (Crow 2011).

Treating the whole

In Ayurveda, pathologies of excess (eg suppurrative infections, fevers, growths) are treated using the principle of samanya-vishesika (equal-opposite) using substances with qualities that are opposite to the disease. ‘Substances having properties of heaviness, lightness, cold, heat, unctuousness get increased when other substances having similar properties are added. On the other hand substances having dissimilar qualities decrease their quantity.’ (Dash and Sharma 1996). In principle, this is an allopathic approach: for example, cold inducing herbs such as andrographis leaf (Andrographis paniculata) are used for treating infectious fevers, or dry-natured herbs such as guggul resin (Commiphora mukul) for congestive damp, or hot quality substances such as ginger root (Zingiber officinale) for cold diseases, and moisture enhancing herbs such as aloe vera juice (Aloe barbadensis) for dryness.

Conversely, according to the principle that ‘like increases like’, some deficient pathologies (eg fatigue, anaemia, compromised immunity) are treated by using herbs with similar properties to the deficiency. In principle, this is a homeopathic approach: for example, reproductive tissue can be stimulated with fertility tonics such as shatavari (Asparagus racemosus) which has been shown to have phytoestrogenic effects nourishes reproductive fluids through classical ‘cooling’ and ‘unctuous’ properties.

But does it work?

Historical as well as everyday clinical experience confirms that many diseases that are difficult to manage with modern medicine may be helped using cost-effective and low-side-effect herbal treatments. Simple infections, diseases of ageing, osteoarthritis, digestive issues, skin diseases and women’s health are all strong candidates (McClure et al 2014).

Herbs can help our microbial defences. Some of the most favoured herbs in modern herbal clinical practice are andrographis (Andrographis paniculata) (Poolsup et al 2004), echinacea (Echinacea purpurea/angustifolia), elderberry (Sambucus nigra), neem (Azadirachta indica) (Yanika et al 2001) and tulsi (Ocimum sanctum) (Mondal et al 2011). Their potential for helping mitigate the current antibiotic resistance crisis is enormous. Herbs can work independently but may also be used to enhance the effects of antibiotics (Hemaiswarya et al 2008). They can work as single plant medicine or be used synergistically in multi-herb combinations (Wagner and Ulrich-Merzenich 2009).

Why then are we so recklessly using antibiotics when the history, tradition and science for using plant medicine is so robust (European Herbal and Traditional Medicine Practitioners Association 2013) and so much is now known about the impact of plant medicines on harmful microbes?

- **Herbs can destroy the microbial cell wall**
  Essential oil compounds, such as carvacrol and thymol (the hot and spicy compound found in oregano and thyme) destroy the bacterial cell membrane rendering them inactive. Green tea also does this.

- **Herbs can inhibit bacterial defence systems**
  Epigallocatechin gallate (EGCG), a polyphenol in green tea, impedes the enzymes bacteria release to deactivate antibiotic activity. Tannins also do this. Triphala, one of Ayurveda’s most famous formulas made from the fruits of amla, bibhitaki and haritaki, is often used in antimicrobial formulas.

- **Herbs can disarm bacteria’s antibiotic rejection system**
  A system called the efflux pump which stops antibiotics entering the bacterial cell is a major cause of drug resistance. Some herbs by inhibiting this pump allow antibiotics to deactivate the microbe. Baicalen found in thyme and some Scutellaria species reverses MRSA resistance to ciprillin in by inhibiting the bacteria’s efflux pump.

- **Herbs can inhibit quorum sensing**
  Quorum-sensing is a protective mechanism that enables bacteria to rally defences against compounds toxic to it, for example by creating biofilms that act as inhibitory barriers (Chan et al 2011). Cinnamon, cranberry, garlic, ginseng and propolis interfere with this process, breaking down the matrix and preventing the microbes adhering.

- **Herbs can initiate mitochondrial disruption in the bacteria**
  Herbs such as clove, dill and tea tree oil interfere with microbial energy cycles.

- **Herbs can inhibit viral replication**
  By targeting viral proteins, herbs can disrupt the lifecycle and block the proliferation of an invading virus. Andrographis has been shown to do this with the cold sores caused by herpes simplex 1 and various flu viruses (Coon and Ernst 2004). Elderberry has been shown to deactivate the neuraminidase enzyme released by ten strains of flu (Zakay-Rones et al 1995).

The herbal paradigm also embraces the concept of strengthening immunity by galvanizing both innate and acquired immunity. Herbalists use a category of plants called ‘immune modulators’ to treat autoimmune, inflammatory and proliferative disorders. Plants such as astragalus root – Huang qi (Astragalus membranaceus), ginseng root – Ren Shen (Panax ginseng), ashwagandha root (Withania somnifera) are all used in conditions such as
as chronic fatigue syndrome, chronic bronchitis and rheumatoid arthritis.

Why are plant medicines effective?

We have an extraordinary and complex physiology, and yet science has repeatedly shown that minute amounts of plant compounds can profoundly affect our physiology. Spicy compounds, aromatic terpenes, and colourful flavonoids in ginger, elderberry or turmeric help the plant flourish and it is clear that they these substances can interact with the human organism and optimise adaptive responses: stop a virus replicating, help our nervous system ameliorate pain, boost our fertility and lift our mood. Why should this be so?

Plants have evolved ways of protecting themselves from invading microbes and extreme climates. For perhaps 10 million years humans have co-evolved alongside plants, so that the human organism is genetically adapted to the plant world. Consequently we readily respond to very small amounts of psychochemicals. Conversely, the last 100 years of modern medicine’s use of high-dose single chemicals, to which humans are not so well adapted, has resulted in some remarkable success stories but also many infamous tragedies.

The big question of sustainable healthcare

We face an explosion of system-wide catastrophic and chronic disease. Diabetes, cancer and emotional disorders are, in the Ayurvedic view, imbalances that do not hugely benefit from the single chemical approach. As science starts to grasp the complexity both of living systems and the biosphere it will I hope soon conclude that a more developed system-wide approach to healing is now called for. Researchers have spent billions to tell us the obvious; that good health depends on good diet, exercise and lifestyle. Billions more have been spent trying to find single-molecule medicine that will cure diseases mediated by diet, lifestyle and environmental factors. But the dangers of modern pharmacology’s ‘magic’ bullets are facing their heads (Jernberg et al 2010) for modern medicine is now one of the major causes of premature death (Light et al 2013).

If, as it appears, our health system is collapsing under the weight of an unsustainable paradigm, might not traditional herbal medicine and holistic self-care become part of a more cost-effective and sustainable way to build a healthier society?


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Additional sources


For more information, see www.pukkaherbs.com,
Self-care and self-cultivation: the necessary foundation to heal

Thuli Whitehouse
GP; BHMA trustee

Before starting medical school I suspected that not all the answers lay on the path I was embarking on, but that I needed to understand what we were doing before I could work out how to change it. These days, alongside my work as a GP, I am a trustee of the British Holistic Medical Association and I teach yoga – running retreats guiding people to reconnect. This article is modified from an essay I wrote as a student of medical anthropology and lays out the theoretical framework of why and how I believe change needs to happen. It is something we must both do as doctors and enable in our patients.

In Western civilisation the person has become an amalgamation of often contradictory facts, an entity divided up by specialists into sections (Dumit 1997). We live compartmentalised lives, each person adopting multiple identities to fit the multiple roles in the multiple sub-cultures we are part of (Mellor and Shilling 1997). This fragmented split off identity and loss of any sense of community may be at the heart of the problems now facing biomedicine and society. For medical science has become part of the problem in that it disconnects people from their bodies, breaking them down into parts, and objectifying illness through imaging and tests.

 Somehow we as doctors have to combat this sense of disparity and body alienation and begin our own process of change. If, as the phenomenologists tell us, embodiment is the foundation of the self and that healing is a process of embodied change, then our task must be to begin re-embodifying our patients and ourselves. Through a process of self-knowledge, self-care and self-cultivation we must come into the present moment, into our lived rather than our objectified bodies.

Identity has for ever been the vexed puzzle at the centre of philosophers’ worrying. Perhaps humans ever since they evolved the power of speech have told stories about what and why we are. In our time each of us lives in a fog of more or less contradictory stories. Different experts rule over these domains and medicine of course tells its own fragmented story about what we are and why we get ill. Is there a way back into a more direct and wisdom-filled experience of what we are and what we need?

Medicine today and the Socratic imperative

The march of scientific progress continues with an ever-increasing complexity of medical technologies and an ever-expanding body of evidence based medicine. Despite its successes however, modern medicine is facing problems. Litigation rates are on the rise along with complaints about how the ‘human’ aspect has disappeared from medicine; there is poor compliance with treatment and health promotion advice as trust in doctors declines in an increasingly pressurised environment, where we have less and less time to spend with each patient for meaningful communication or to build a relationship. System specialisation might improve industrial efficiency but it compromises continuity of care;
patients are ‘categorised according to body parts… ‘a cardiac patient’, ‘psychological problems’. (Whitehouse 2005).

In this climate the pursuit of self-care as an essential dimension of medicine might appear to be idealistic. Yet it could actually be the key to solving many of these challenges. Let’s explore.

In our society, as Foucault describes it, the quest for ‘truth’ is paramount. But ‘truth’ in our society (and perhaps particularly so in medicine) is something only science is allowed to decide. So medicine’s understanding of the causes and meaning of illness is seen only through the lens of rationality and reason. But, Foucault confronts us with the question:

‘…Why are we concerned with truth more so than with the self? And why do we care for ourselves only through the care for truth? I think we are touching on a question which is very fundamental and which is, I would say, the question of the Western world. What causes all Western culture to begin to turn around this obligation of truth…?’ (1984:15).

It seems we admit as human only those aspects of ourselves that can be reflected in physical laws or biochemical processes. In broad contrast, the classical Greek worldview was human-centred (Gregory 1984:17). The Socratic imperative was to be concerned with your self, i.e., to ground your self in liberty, through the mastery of self. Foucault describes the society of Ancient Greece as one where value was placed on a different kind of truth, the subjective truth. This kind of truth was discovered through care for self: through self-knowledge, self-reflection and self-improvement. These practices were seen as an expression of liberty; and as being the duty of a free man (Foucault 1984:20).

Defining ‘the self’

In contemporary society the notion of self-hood is problematic. Dumit argues that in forming our identities we have come to depend on scientific ‘facts’, which now play a key role in how we experience our selves, our bodies and others (Dumit 1997:860 87). We are in effect enslaved by faceless ‘expert opinions’ from ‘others’ (as opposed to self) to tell us who we are.

The way our society thinks of self is disembodied and fractured; our unquestioned assumption is of a split between mind and body; between spirit and matter and that science can understand the body as being like a machine (Scheper-Hughes and Lock 1987). All of this reinforces the sense of the body as being something ‘other’, as not-self. Nowhere is this more keenly felt than in the practice of modern medicine, for this is where humanity and science collide. So how are we to move beyond this deeply ingrained fractured and disembodied sense of self towards a more cohesive, holistic notion of identity?

Csordas tells us that we ought not to deal with ‘the self’ as if it were something substantial, because the self isn’t a thing. It can be understood better as an orientational process, as a way of being in the world that only exists and has any meaning in relation to the world (1994:5). The second radical shift in our story about the self comes from the phenomenologist Merleau-Ponty (1962) who wrote that perception begins not with objective reality but with the perceiver. And thirdly, that we perceive the world, and our own ‘self’ through the body. This phenomenological perspective blurs the subject-object split and denies the mind–body division, because perception of the world and our own body is not an observation of objective reality, but rather a reflexive process of object-making. Actually if we pay attention to our experience in a mindful way we may recognise that these splits are illusory. As Csordas reminds us, ‘it is in the immediacy of lived experience that… [these] dualities are collapsed, but also out of which they are generated in the first place’ (1994:278). For Csordas, in perception and in practice the self is ‘grounded in embodiment’ (1994:10). If our self is never fully formed, but continually developing, then we escape from having to define ourselves objectively. But this is not a self that can be fixed in space or time or defined by ‘facts’.

Self-care and cultivation

Orthodox medicine has been widely criticised for its ‘biomedical’ perspective: for having lost touch with the social, psychological and emotional aspects of disease. Engel’s biopsychosocial model (1977) aims to combat this problem and create a more cohesive and functional health system by integrating the psychosocial elements of illness. Engel also places great importance on the relationship between doctor and patient in effective treatment. He saw the role of doctor as that of educator, a role largely missing from many medical encounters and which, when it does appear, is often didactic and paternalistic. Engel’s educator role on the other hand is rather like that of the philosopher Foucault describes in Ancient Greece, ‘who cares for the care of others’ (1984:7), because ‘in order to really care for self… one needs a guide, a counsellor, a friend’ (Foucault, 1984:7). But this guide’s task is to direct without dominating.

By listening to a patient’s story, addressing psychosocial aspects of illness and making treatment decisions collaboratively we would radically improve relationships between doctors and patients. This in turn would reduce litigation, complaints, mistrust and reduce biomedicine’s ever-present risk of turning the patient into a dehumanised object. But it clearly isn’t enough simply to inform patients of health risks and advise beneficial lifestyle changes, since this approach has done so little for public health. What then might our philosophical exploration of selfhood tell us about how to promote self-care?

If the self is not fixed and objective, but an ongoing process, it is therefore open to the sorts of change and
healing that Csordas1994 has redefined as involving ‘subtle modulations and transformation of self’ (Csordas 1994:71). But in order to be effective, the participant(s) has to be existentially engaged in the process of change at the level of self in the present moment – as body, mind and soul. The challenge then, as I see it, is to heal the body, the self and the social side of a person by working in and through the body (Thomasmus 1984:46). As a doctor, my task is to facilitate this through empowerment not coercion: to enable self-care by encouraging self-knowledge, by engaging a person’s inner resources and involving them in all decisions. Somehow these changes must be embodied, owned, and incorporated into a person’s life, not as moments but as processes to be nurtured and maintained. What’s needed is a shift from hitting targets to paying attention to the journey.

Non-western approaches to self-care

Although the trajectory of western medicine from Hippocrates to modern day biomedicine has moved steadily away from this kind of approach, it has existed for millennia in the medical and philosophical systems of other cultures.

Our conception of medicine as a remedial discipline is not universal (Alter 1999). For instance in Ayurveda, self-care is medicine. Ayurveda prescribes changes beyond western medicine’s ‘don’t smoke, eat well, exercise’ by providing a detailed framework within which to achieve defined aims. It also supports the patient in becoming more responsible for their own health and in playing an active role on the healing journey rather than simply receiving treatment.

In the west, hospitals, doctors, medical treatments and procedures hold negative associations for most people and medical knowledge is something that’s ‘best left to the experts’. So health is not something people think about on a day-to-day basis. Most people, as Blaxter (1990) found, only really consider health when they have lost it. But as I wrote in my 2005 article for the student BMJ:

‘Ayurveda is not just for the sick; it is a system for staying well that becomes part of the patient’s lifestyle. The basic concepts can be easily understood and applied by anyone. It encourages patients towards physical and mental self-knowledge.’ Whitehouse 2005

The Ayurvedic perspective, rather than being reactive and primarily concerned with disease, is proactive and concerned with overall fitness. Instead of seeing the body as naturally healthy and prone to illness, Ayurveda sees the body as naturally imperfect and therefore that health needs continual cultivation. This view challenges our definition of medicine as the science of returning the body to objective normality by restoring what is missing or fixing what has gone wrong. In its place it conceives of going beyond wellness to a state of hyper-wellness (Alter 1999).

Compared to orthodox medicine, this kind of approach is not preventative ‘but rather… vigorous self-development’ (Alter 1999:S51). Perhaps this is where the focus of public health messages has gone wrong? In general, expecting the prospect of possible, negative, future events to dissuade people from certain behaviours isn’t effective. Nor does this often encourage a healthier way of life. But by shifting the focus from the future self to the present self and by using the positive language of proactive medicine rather than that of negative reactive medicine, we may develop an approach that is truly conducive to change. Since these life changes would be acknowledged as slow but steady, there is no instruction to ‘do this now’ (eg stop smoking). The emphasis is not on paying attention when something is dramatically wrong, but rather on listening to the body and tuning into its needs and its rhythms.

This message is also loud and clear in Yogic teachings about inner rather than outer ‘scientific exploration’. This would open up for medicine a new form of empiricism where having closed our eyes we may connect to our physical being. In our modern mind-driven culture we have become completely divorced from truly inhabiting our bodies, feeling sensations and listening to what they tell us. Once we have found physical stillness and presence within movement we may begin to connect to that silent space beyond. From here we may be guided by a deeper connection to ourselves and to the present moment, where all answers have to begin.


Scheper-Hughes N, Lock MM (1987). The mindful body: a prolegomenon to objective normality by restoring what is missing or fixing what has gone wrong. In its place it conceives of going beyond wellness to a state of hyper-wellness (Alter 1999).

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Diagnosis: are we medicalising human experience?
A radical review

Vinay Mandagere

Medicalisation is described as the process of taking non-medical problems and converting them into illnesses and disorders (Conrad and Schneider 2010). Peter Conrad divides this into conceptual and interactional medicalisation. Conceptual is merely a change in language whereas interactional is where a social problem is turned into a medical one (Maturo 2012). This essay has two main aims: to discuss how diagnosis affects patients’ lives and how human experience has been engulfed by medical lexicon and nosology.

Mental health

They only give you that because they can’t put you into a tick box... [it’s] easier for them to give you a personality disorder
(Health Talk Online 2016a)

Ugo’s diagnosis with personality disorder is caused by childhood trauma, as well as having six miscarriages. She later lost her husband and home and often resorts to self-harm. The medications she has been prescribed give her various side-effects. Ugo’s description of her diagnosis with a personality disorder frustrated and isolated her because her illness was described as ‘miscellaneous’. She feels that she is not being understood and lacks motivation to undergo daily activities. Moreover, her being labelled as ‘mentally ill’ resulted in her being stigmatised and seen as a danger to others. As a result, she was barred from her church when she needed it most.

This example illustrates how the interactional medicalisation of her problems has failed her as she neither understands nor manages her illness. Furthermore, it emphasises how the vagueness of psychiatric classification can leave patients feeling confused. In discussion, Ugo described how more community-based services could help her vent her feelings and exchange ideas from others in BME circles. This shows how she did not need pharmacological intervention but rather the support of people who could listen to her. Ugo needed compassion and kindness.

The medicalisation of mental illness has resulted in ambiguous classification and over-prescription. In the DSM-III, diagnosis of major depressive disorder (MDD) is characterised by nine symptoms: ‘mood, interest, activity, fatigue, weight/appetite, sleep, guilt,
Diagnosis: are we medicalising human experience? A radical review

Ageing is a natural process of life, yet experiences such as baldness or erectile dysfunction have been seen as a problem to be treated. With the introduction of Viagra in 1998, medicalisation has brought forth greater expectations of masculinity for male patients.

Hence, we can see the effects of medicalisation on a societal and individual level. Pharmaceutical intervention for baldness and erectile dysfunction has penetrated the cultural perspective of the body. This is exemplified in an advertisement in Australia, where false statistics were shown in order to push men into seeking medical help for erectile dysfunction. The advertisement claimed that 39% of men who visit their primary care doctor have erectile dysfunction, yet it did not mention that this was massively dependent on age and varied in how often patients reported their problem. This ‘disease-mongering’ of the media can cause anxiety and lack of self-esteem for many patients (Moynihan et al 2002).

The advertisement for erectile dysfunction was later found out to be funded by Pfizer. Medicalisation is often driven by the corporate greed of pharmaceutical companies. After the approval of the drug Paxil for social anxiety disorder in 1999, GlaxoSmithKline developed a multitude of marketing plots to raise awareness about the interventions they had generated. The product designer of Paxil, Barry Brand even said ‘Every marketer’s dream is to find an unidentified or unknown market and develop it. That’s what we were able to do with social anxiety disorder’ (Conrad and Schneider 2010). This brings forth the idea that the industry sponsors sickness by picking out abnormalities and encouraging society to see itself as morbid.

**Medically unexplained symptoms (MUS)**

In primary care, many patients seek advice for unexplained chronic pain, irritable bowel syndrome (IBS) or chronic fatigue. These are known as medically unexplained symptoms (MUS), which have been classified by medical specialties for diagnostic ease. There is a lot of evidence showing the psychosocial etiology of these symptoms: a combination of difficult upbringings, abuse, relationship problems, domestic violence, financial problems or stress. The physical symptom manifestation often brings patients to believe that they require medical attention.

General practice is an extremely time-pressured environment, and with MUS it is often the case that there is a lack of resources to signpost patients to mentoring or intensive therapy services. Furthermore, the reluctance of patients to engage with more long-term therapies often results in antidepressant prescription, ie ‘a quick fix’. Primary care doctors often see high-flying professionals who complain of stress due to high expectation and busy schedules. Often the short-term solution is pharmacological intervention. This demonstrates how generic stress-related problems are becoming medicalised as a result of a pressurised system. A shift in culture from short-term prescribing to long-term prevention could decrease medicalisation of stress and foster healthier attitudes.

**Turning medicalisation into holism**

Throughout this essay and in the vast amount of literature, medicalisation is a pejorative term. However, it could be argued that the medicalisation of human experience is indeed beneficial in helping the way we approach problems in society. The process of diagnosis is merely the first step. What follows diagnosis is the investigation and then the relief of suffering for the patient. To argue whether the problem is social or medical or spiritual is an irrelevant demarcation. Here, medicalisation can be a way in which a doctor deals with the patient’s problems holistically. Medicalisation can be adapted to allow physicians to care for the whole person.

Defining ‘holistic care’ is difficult, but the chair of the BHMA, William House, uses the Bantu term ‘Ubuntu’ which is roughly analogous to the words humanity and connectedness. It is a way of connecting with the patient, empowering them and exploring their meaning and purpose. Holistic medicine is not merely treating illness, but fostering health and viewing the relationship of the patient with society and the external environment. Here I argue that the process of medicalisation is beneficial to holistic care as it widens the circle of concern for medical
Diagnosis: are we medicalising human experience? A radical review

Perhaps by giving problems in life a medical name, doctors can start exploring a more integrated approach to health to truly heal and support their patients.


Dowrick C, Frances A (2013) Medicalising unhappiness: new classification of depression risks more patients being put on drug treatment from which they will not benefit. BMJ 347(f7140).


Are you a healthcare professional who would like to broaden your understanding of integrative medicine and acquire a professional qualification in this growing area of healthcare?

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practitioners. It ultimately results in more patients seeking medical help.


The ways students adapt to the demands of medical training may shape career-long habits and lifestyles. Some students become ill or unable to continue; on qualifying many doctors say they intend to take up jobs outside our under-resourced health service. Ought medical schools to be preparing students better for the frontline and the often ignored emotional impact of doctors’ working lives? This symposium of medical teachers assembled to share the challenges of developing a ‘resilience-curriculum’ to protect the future of safe and sustainable (and satisfying) professional practice.

Professional resilience used to be seen primarily as a characteristic of people who are relatively stress-proof and so less susceptible to burnout. It was formerly assumed too that these qualities were predetermined. More recently, it has been recognised that people can learn to be more resilient, that positive adaptation to professional challenges is possible, and that certain skills and attitudes enable doctors to flourish in their work.

For the last three years the Westminster Centre for Resilience team has been developing resilience workshops for NHS staff. Our encounters with GPs and foundation doctors has left us in no doubt of the need to be resilient in both ways: throughout long and often stressful careers doctors are expected to function well and with grace and make life or death decisions under pressure; and in medical practice they encounter extraordinary levels of emotion and suffering which, whether or not they realise it, they will inevitably be affected by.

If we define resilience as the ability to make appropriate decisions while retaining emotional awareness and empathy; and to achieve this without too high a personal cost, resilience would seem to be a very desirable quality in a doctor; perhaps even a necessary one.

The evidence that empathic patient-centred doctors are also more resilient supports the potential for positive cycles of satisfied patients and fulfilled doctors. In order for this to come about however, medical education may need to evolve as, crucially, the way healthcare is conceived and organised undergoes radical change in the face of the 21st century’s demands.

The big problem

The GMC, aware that students and qualified doctors are experiencing increasing levels of workplace stress and burnout, has urged medical schools to include personal resilience in their professional development programmes. With these issues in mind we convened a symposium of medical school colleagues involved with teaching about resilience, professional development or self-care, to begin asking where, how well and with what outcomes the GMC’s instruction is being carried out.

As far as we can establish this was the first meeting of UK medical educators to specifically address the topic of student resilience and self-care. Teachers from 28 of the UK’s 34 medical schools came to the meeting at the University of Westminster in Central London in June 2016. Sixty participants took part in a format that included presentations, panels, and large group facilitated conversations. World Café and Open Space processes
encouraged collaborative dialogue – knowledge-sharing so that creative possibilities could arise.

We came together around the assumption that in the increasingly overstretched territory of modern, industrial-scale healthcare, more attention to personal resilience (starting at medical school) will be a vital basis for safe and sustainable professional practice. Medical training is both intellectually and emotionally demanding, and the ways students adapt may well determine career-long professional habits and styles of practice. Perhaps dropout, burnout, career dissatisfaction, and consequent staff wastage would be reduced if the burdens of medical student, foundation and post-foundation stressors were better understood and addressed. Our implicit proposal was that an enhanced ‘resilience-curriculum’ could be an essential first step in this direction. Associated questions included whether a deeper understanding of resilience would help doctors become more authentically patient-centred.

The challenges for medical education

A panel of four students and one foundation year doctor opened the symposium. Their common concerns and solutions included the current selection focus on A level grades, and medical schools’ failure to prepare students for the emotional rigours of professional practice. The panel members recognised medical education’s ‘invisible curriculum’, how it shames mistakes and ‘weakness’, discourages emotional honesty, fosters isolation and competitiveness, persuades teachers to be anonymous rather than authentic, and generally fails to champion reflective practice.

The panel wanted more mentoring for students and for distressed or ill students to be identified and helped early, compassionately and without being stigmatised.

Moving from the illusion of certainty as a student to the reality of uncertainty as a foundation doctor is a giant step. The transition should be better supported. They saw the potential for a ‘hard science’ perspective on emotion, mindfulness, stress-resilience, self-care and wellbeing (using the emerging fields of contemplative and emotional neuroscience) as having important implications.

Some solutions and conclusions

We selected six medical educators to present their projects as examples of effective models aimed at addressing some of these issues: mindfulness training (Monash Medical School, Melbourne), Schwartz Rounds (introduced at University College London), SafeMed (University of Cork) and two models for professional development (Plymouth University and Barts & the London). The recently established online ‘Tea and Sympathy Network emerged as an example of an extra-curricular resource that could be extended to undergraduates.

Medical students need support for resilience both educationally, and through social networks and online resources. With this in view, the symposium proposed creating a ‘parallel resilience curriculum’ to extend and enhance schools’ own efforts. Concerned medical educators will form a special interest network to develop these resources and pursue research into the effectiveness of educational interventions. The centre will seek funding to help build this network and for developing online resources, sharing information and supporting further collaboration. A second one-day meeting will be held in summer 2017.

The full report is available online and as a printed version at the centre’s website www.westminster.ac.uk/centre-for-resilience.

Open Clinical Day

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William House
Retired GP; Chair of the BHMA

When you study fairy tales you can study the anatomy of man. Carl Jung

All animals must come to terms with the search for food. Nature has it that this search is a key driver for the cycle of life. But humans, being complex creatures, make much more of food than its survival value, though of course survival is at stake. So little wonder that folk stories often feature food. The Brothers Grimm, the celebrated collectors of folk tales, knew hunger. Though born into a comfortable background, poverty struck when their father died from pneumonia in 1796. Jacob was 11 and Wilhelm 10. After their mother died in 1808 they cared for their three younger siblings, depriving themselves of food for the children’s sake. Their one solid meal of the day was three portions shared among the five of them.

The brothers were already collecting folk tales by this time and unsurprisingly very many of them include hunger as motif, often combined with violence. In the very well-known *Hansel and Gretel*, the woodcutter’s family are starving and their stepmother persuades their father to cast out the children into the forest. As we know, the children are lured into the Gingerbread Cottage where the wicked witch plots to fatten them up and cook them for dinner. Of course, they manage to escape, the witch ends up in her own oven, the children bring back jewels from her cottage and when they find their way home (various birds help them) they discover that the wicked stepmother has died. In true fairy tale style, the ‘good’ wins out!

Another common motif in the Grimm collection is the everlasting food supply. For instance, this features in *The Raven*, *The Magic Porridge Pot*, *The Magic Table* and *One Eye, Two Eyes and Three Eyes*. The last of these is about three sisters, one with just one eye in the middle of her forehead, another with two eyes as normal, and the third with an extra eye in the middle. One-eye and Three-eyes torment their two-eyed sister, with old clothes, little food and work in the fields tending the goat named Bleat. One day when she is sitting weeping beside the goat, a wise woman appears and gives her magic words to say, ‘Bleat, my little goat, Bleat/Cover the table with something to eat’, and a table appears with delicious food. Later a similar little rhyme causes the table to disappear. When the two sisters and mother discover this, the mother kills the goat with a kitchen knife. With a little more help from the wise woman, and more magic, Two-eyes gets to marry a handsome young knight, and later rescues her sisters who had become beggars.

All the fairy tales collected by the Brothers Grimm are at least many centuries old, existing in differing versions all over the world. They spread and survive because they still entertain, and they transcend culture. In fact, fairy tales mirror the most basic psychological structures of man. With food as one of the fairytale motifs we reach deeply into the human condition, and not all of it is pretty. The recurring motif of hunger, for instance, reflects its ubiquity and persistence. Hunger has many causes but occurs particularly in regions of great income inequality. Both of the tales mentioned above demonstrate this. Today, 1.7 million children are living in severe poverty in the UK, and across the world, the presence of street children remains a tragic problem, especially in Latin America.

At the opposite extreme, unlimited access to food may help in the moment but is more likely to trigger jealousy and violence than the traditional happy outcome. The second story above is a good example, and is mirrored in our modern epidemic of obesity and consequent diabetes in the developed world’s overabundance of industrialised food. The importance of this is not so much to be reminded how bad things can be, but to promote fairy tales as an engaging way of teaching us about our shared nature.

The deeper metaphorical and symbolic meanings in fairy tales resonate with us whether or not we understand them consciously. Bettelheim (1991) sees Hansel and Gretel’s journey as a coming-of-age experience – escaping from childhood, experiencing the (often brutal) world, and ultimately forming adult relationships which can bring happiness. A similar journey is taken by Two-eyes. In general terms Bettelheim sees the fairy tale as externalising in symbolic form internal psychic processes. In terms of archetypes, the stock characters such as the wicked stepmother and the fairy godmother represent opposite poles of the mother image within all of us. From Marie-Louise von Franz (1991):

‘Fairy tales represent the archetypes in their simplest, barest, and most concise form... The fact that we have now relegated them to children shows a typical attitude – I could even call it a definition of our civilisation – namely, that archetypal material is looked upon as infantile.’


Research summaries

Science, lifestyle and common sense

Warning: fat planet ahead
This huge global data-crunching study used 1,698 population-based data sources, with more than 19·2 million adult participants (9·9 million men and 9·3 million women) in 186 countries. The aim was to see the international trend in adult heights and weights. Although underweight remains prevalent in the world’s poorest regions, especially in south Asia, the study found that if post-2000 trends continue, by 2025 global obesity prevalence will reach 18% in men and surpass 21% in women; severe obesity will surpass 6% in men and 9% in women.

Eat more grains...
A wealth of observational studies tell us that people who eat more whole grains are healthier in various ways and may live longer. The researchers reviewed a wide range of published research using a meta-analytic approach to judge the relationship between whole-grain intake and risks of dying from any cause, cardiovascular disease (CVD), and cancer. Their findings suggest that people who eat more whole grain tend to live longer and have a reduced mortality whether due to CVD or cancer. Increasing whole-grain intake would improve public health.


…and fruit for adolescent women
Food choices during adolescence may be particularly important. This study took information from the diet questionnaires of 90,476 pre-menopausal women aged 27–44. There were 3,235 cases of invasive breast cancer during follow-up to 2013. Of these, 1,347 cases were in women who had also completed a questionnaire about their diet in 1998 during adolescence (aged 13, 18). Total fruit consumption during adolescence was associated with a lower risk of breast cancer: Higher early adulthood intake of fruits and vegetables rich in carotene was associated with lower risk of pre-menopausal breast cancer. Apple, banana, and grapes during adolescence and oranges and kale during early adulthood were significantly associated with a reduced risk of breast cancer.


…and elders
Fruit and vegetables may also protect against frailty in elders. Among this study of several thousand community-dwelling older adults, fruit and vegetable consumption was associated with a lower short-term risk of frailty. Three portions of fruit a day and two portions of vegetables a day had the strongest effect of reducing risk of exhaustion, low physical activity, and slow walking speed. The consumption of vegetables was associated with a decreased risk of exhaustion and unintentional weight gain.


…but also chocolate!
The Swedish prospective study linked the records of 67,640 Swedish women and men who had completed a food-frequency questionnaire and were free of cardiovascular disease at baseline. In this group, 4,417 myocardial infarction cases were identified and those eating 2–4 servings/week of chocolate had a 13% relative risk reduction compared with non-chocolate-eaters.


You should get out more...
This rigorous review of 452 publications confirmed that green spaces do provide social, economic, and environmental benefits and that they improve ‘physical, psychological, emotional, social, and material wellbeing’ of individuals and enhance quality of life. The authors strongly recommended conservation of green spaces as part of national health, environmental and socio-economic policies.


…and get active!
People who do leisure-time physical activity have a lower risk of heart disease and all-cause mortality. But why should it lower the risk of cancer? This study pooled data from 12 prospective US and European cohorts with self-reported physical activity (baseline, 1987–2004). Overall, leisure-time physical activity was associated with lower risks of many cancer types apart from higher risks of malignant melanoma (more exposure to sunlight).
and prostate cancer (no explanation for this). Smokers still had a greater lung cancer risk even if they were exercisers. But most of the lowered cancer risks were evident regardless of body size or smoking history.


**Proving that yoga is good for you...**

This paper reviews 52 randomised controlled clinical research studies of yoga published since 2011. Promising trends and persistent limitations in the literature are explored in depth. The majority of the studies reported positive outcomes in the yoga intervention groups, but further research is needed to validate yoga as an effective intervention for specific health problems.


**...and so is gardening**

The National Gardens Scheme commissioned The King’s Fund to produce an independent report on the benefits of gardens. The report summarises the evidence on the impact of gardens on wellbeing across the life-course and demonstrates that gardening interventions have a place in healthcare. The report looks at four areas: social prescribing, community gardens, dementia care and end-of-life care and includes a ‘menu’ of recommendations making the case for the diverse health benefits of gardening and the integration of gardens into mainstream health policy and practice.


**...but loneliness can kill**

Research has shown that social relationships are good for you but the size of the loneliness risk for cardiovascular health is unclear. This review pooled a huge amount of information from 16 highly rated longitudinal datasets in which there had been a total of 4,628 CHD and 3,002 stroke events recorded over follow-up periods ranging from 3 to 21 years. Poor social relationships were associated with a 29% increase in risk of incident coronary heart disease and a 32% increase in risk of stroke. Future studies need to ask whether interventions that reduce social isolation could help prevent two of the leading causes of death and disability in high-income countries.


Of mice and men: a cure for Alzheimers?

It’s too soon to say whether they will work in humans, but a recently published study reports on a multi-ingredient dietary supplement (MDS) that improved cognitive deterioration and significantly reduced age-related physical deterioration in both normal mice and genetically dementia-prone mice. In these prematurely aging mice the MDS completely abolished the expected severe brain cell loss, reversed their cognitive decline and boosted their sensory and motor function. The vitamins and minerals were not exotic and included humble beta-carotene, bioflavonoids, cod liver oil, flax seed, garlic and green tea extract.

A battery of tests and scans showed that untreated ageing-prone mice displayed brain changes, reduced sensory function, and slowing of the brain cerebral metabolic rate and blood perfusion similar to those seen in patients with Alzheimer’s disease. The supplement restored their cognitive function, significantly improved their motor co-ordination and appeared to reduce anxiety and to offset loss of visual acuity.

Jennifer Lemon, who led the research at McMaster University, Canada, suspects that nutraceuticals are more effective in combination because cells work in such complex ways that when something’s going wrong, many biochemical pathways go out of balance. This might explain why artificially increasing the level of one nutritional supplement may distort other essential processes and make a disease worse.

Dr Lemon said in a Medscape interview available online (http://www.medscape.com/viewarticle/864566) that she was ‘shocked, along with everybody else’ that a nutraceutical combination most doctors would think ineffective could have such an extraordinary effect. But she is optimistic that the supplement will work not only in mice but in humans too because the combination impacts on oxidative stress, inflammation, and mitochondrial dysfunction. These processes operate in most air-breathing organisms and in most species they deteriorate as the animal ages. However, one important difference between humans and mice is that they do not have diurnal rhythms. The combination may be more effective if some of the supplements are taken in the morning and others in the evening, depending on what functions need to be protected.


**Vitamin D supplements could halve risk of serious asthma attacks**

A new Cochrane systematic review of the best available randomised trials showed that Vitamin D supplements can halve the risk of serious asthma attacks. People with mild or moderate asthma (symptoms two or more days a week, but their daily routine not seriously affected) who took vitamin D for six months to a year alongside their normal medicines had significantly fewer attacks and fewer that resulted in hospital treatment. The review was not designed to find out whether everyone with asthma would benefit or only people with low vitamin D levels. Nor did it tell us a recommended dose. Further research will have to answer these important questions.

www.theguardian.com/society/2016/sep/05/vitamin-d-supplements-could-halve-risk-of-serious-asthma-attacks

Live well live long: teachings from the Chinese nourishment of life tradition
Peter Deadman
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The Chinese tradition of Yangsheng variously translated as nourishing life or cultivation of life has been written about for around 2,500 years and is still practiced in China today. In the parks and by the lakes people are doing their tai chi, bringing their canaries out to sing, dancing. In contemporary Chinese society published material on ‘cultivation of life and protection of health’ (yangsheng baojian) mixing ancient philosophy with scientific research is readily available in bookstores and in newspapers. What Live Well Live Long does is make all this and much much more available to us. It is not just the thorough description of a wide range of Chinese yangsheng practices that we can now learn more, but the way the author has explained them has brought them into the modern world, relevant to our lives, and then supported this with meticulous research. This is a beautifully published and interesting book and well written.

The book starts with a useful introduction to the terminology of yangsheng, of some of the basic principles of Chinese medicine and of causes of disease, with a useful glossary at the back and reference to the best books to read on Chinese medicine from a yangsheng perspective. It does not delve into Chinese medicine diagnosis and treatments but is firmly positioned in health not in treatment.

Live Well Live Long covers a diverse range of traditions that come under yangsheng. The main ones of mind and emotions, diet and exercise and sleep are extensively covered and supported with useful research. Each section is backed up by a reference list that in itself could keep you in reading for many an evening. As example the section on diet is not offering recipes or weight reduction programmes but perspectives on what to eat, why modern breadmaking which does not allow for proper fermentation may be leading to wheat intolerance; on the benefits and problems of soya and fermented foods; of the medicinal use of sea vegetables; on the dangers of excess fats and sugar and salt. A particularly interesting chapter is tucked away as an appendix but should not be missed. Coming from more of a western medical perspective the role of the microbiota in health maintenance is well described. Right at the end the author swings the discussion to propose that using faeces as a form of treatment was practised back in the 3rd century by a Daoist alchemist and again proposed by Li Shizhen in his vast materia medica. But the alchemists and Li Shizhen used many strange things under the title of medicinals.

The chapter on exercise starts with looking at what exercise is in relation to a long life. It reminds me of the research done by Dan Buettner on the ‘Blue Zones’ in the world where people live the longest. Buettner describes healthy exercise as about moving naturally, not running and climbing but walking and getting up and down from the ground. The explanation of the principles of the Chinese exercise tradition supports this. It is about smooth movement, about suppleness and alignment. The section on the role of the fascia to understand the tensegrity of the body is well worth reading.

Live Well Live Long covers a wide range of sometimes quite ordinary aspects of life that we need to consider if we want to live not just a long life but a healthy life. You will hear about the importance of how and when we eat; how important it is to sleep and have siestas; how to look after ourselves but also how to look after our children, and how important drinking tea is. Affairs of the bedroom have always had a place in the Chinese self-cultivation tradition. Sex as a source of pleasure and joy for men and women can strengthen the body but can also cause harm. The chapter on pregnancy, childbirth, postpartum care and breast feeding offers some real insights for women in order to maintain health. The concept of ‘doing the month’ is backed up with some interesting research and the discussion on John Shen’s ideas of puberty, childbirth and menopause being ‘gateways’ to a physiological shift that can promote a return to health as much as being times of care. And the section on old age, dying and death offers some valuable tools for us individually and as a society.

In the true tradition of balance, the author is keen to point out that all these practices need to be balanced with love and compassion to avoid health moralism or narcissism. Cultivation of wisdom is the key to life cultivation. The practice of meditation, mindfulness, qi gong, tai chi will help us to embrace emotional balance, not to deny it, not to repress emotions but to be aware of emotions.

In the western world when we talk about a healthy life nutrition and exercise dominate, but for the Chinese yangsheng is ultimately about cultivation of the spirit. In one of the early series of books in English on Chinese medicine from the Shanghai College of Traditional Chinese Medicine, edited by Zhang Enqin, is the book on health preservation and rehabilitation. In my much thumbed copy it falls to the section on maintaining free from worries which recommends how a patient must keep happy: ‘reading books or reciting poems, painting or playing a musical instrument, roaming around in a mountain forest for pleasure, growing bamboo or watering flowers, meeting friends for idle talks, playing chess or having a drink…’. I have recommended this to patients for many years. But the book is hard for most patients to access and also to read and understand, being translated from the Chinese and aimed at student practitioners. Now I have that book in modern English, well presented, researched and referenced and with...
insights bringing us right up to date with the issues we face in the western world. Considerations of our deep need to be at one with the natural world and why we have to preserve it, the healing power of music, the need to gaze on folded valleys.

Peter Deadman shows clearly he has the authority to draw the history of yangsheng together into the modern and western world. Live Well Live Long reads as the most wonderful accumulation of his life’s experience, experiences gathered since the 1970s when he discovered macrobiotics and founded a natural food shop, then as a practitioner exploring his patients patterns and causes of illness and further the extensive research done as he has edited the Journal of Chinese Medicine now for nearly 40 years. His many years of reading research with a ‘Chinese medicine mind’ has helped him to pull all of this together. But further there is a very personal tone to this book that makes for very easy reading. My sense is that the book gains authenticity by coming from his personal experiences as much as his dissipation of qi when he was younger; as well as how he has supported it by his practice of qigong, of good diet and his reading and playing of music. He plays a mean fiddle.

This is a book relevant to my students and patients as much as it will be useful to practitioners from all fields of medicine; a manual with a truly Chinese perspective on health maintenance to have in the kitchen, in the study, in the bedroom, at work. Read from cover to cover or dip in and out as you want, there is much information and inspiration inside.

Felicity Moir, Course Leader Chinese Medicine, University of Westminster

Send
Kay Syrad
Cinnamon Press, 2015
ISBN 9781909077799

This small book is bursting with rich fragments, yet I doubt that it will be read with the attention that richness deserves – so swirling and polymorphous is the material that it is frequently impossible for the (or this) reader to retain concentration or comprehension.

This is a great loss, for Syrad has very evident literary, intellectual and philosophical gifts. She applies these to a fascinating 1950s fictional plot: Lilian is expecting her first child when she is diagnosed with tuberculosis. Her physician, Morley, decides that she must be separated from her baby until and unless she recovers. But Morley becomes haunted by doubt over his diagnosis and the fate of the mother and infant he had coercively separated.

Syrad’s novella explores the lifetime’s reverberations of Morley’s momentous decision for all three lives. We are offered a maze of flashbacks, philosophical questions, poetic reveries, academic abstractions and narrator commentary. Seminal life-themes are evanescently identified: the nature of perception and memory, internal and external realities, attachment and, ultimately, our conception of other people’s consciousness and needs. A heady mix, surely – but is it too heavy to be assimilable?

There are passages where Syrad’s literary gifts have arresting power:

[‘Morley’] must listen for a roughness, for a diminished respiration. He must listen for a succession of murmurs that follow each other so rapidly there can be no differentiation between them – this is what he will hear as a roughness … He looks at her now, Lilian. Her shoulders are hunched forward over her pregnant belly. Her hair is dark, curled. He places his hand on her forearm. She is twenty-three: she is expecting her first child. They both know what it will mean if he can hear the roughness.

Or

Morley had imagined the babies’ tongues, pink and raw and made muscular by their crying, full of nerve endings, awaiting sensation, awaiting instruction.

But such luminously poetic passages are all too often sullied by leaden academic notions that opacify rather than enlighten:

Space and perception generally represent, at the core of the subject, the act of his birth; the perpetual contribution of his bodily being, a communication with the world more ancient than thought … If myths and dreams and illusions are to be possible, the apparent and the real must remain ambiguous in the subject as in the object.

Such dense metaphysical fogs contend with Syrad’s shards of lyrical brilliance: many readers, I fear, will experience Send akin to sitting through a long foreign-tongued art-house film with indistinct subtitles (though, paradoxically, this book is short). I felt Syrad was saying a lot, but much of it I could not hear.

About 150 years ago a reader wrote to Lewis Carroll after reading Jabberwocky: ‘It seems to fill my head with ideas, but I don’t know what they are.’

Maybe Syrad is part of that great tradition of elusive depth. Certainly I admire her creative courage. Do I recommend Send as a good read? I am much less sure.

David Zigmond, GP

Future sense – five explorations of whole intelligence for a world that’s waking up
Malcolm Parlett
Matador, 2015
ISBN 978 1784624 552

… the greater fulfilment of our talents, potentialities, and unique gifts is a direct way of changing the world at the ultimate grassroots. (p3)

Future sense is a powerful exploration of the human condition through the lens of our everyday struggles. The book’s interesting and innovative structure allows Parlett to use everyday language to weave his key ideas into a practical narrative that is both broad and deep. He draws on his long and varied experience as a psychologist, researcher, educationalist, practitioner, Gestalt therapist and coach. Notwithstanding his evident academic depth, he writes primarily as a practitioner and in the first person. He combines a sharp eye for the unique individual with an explicit appreciation of context, extending to the plight of the human race and of the planet. He names this approach
‘whole intelligence’ or whi, a concept that recurs throughout the book. The ‘explorations’ that follow are described as the ‘dimensions’ of whi. This is holistic in every sense. I was left both inspired and awestruck.

The main body of the book is divided into its five explorations. Each is a different viewpoint from which to understand ourselves and our relationships. He describes the first, Responding to the situation, as embracing all the others. His thrust concerns the uniqueness of situations and the need for ‘creative adjustment’, sometimes playfulness and often living with uncertainty. He writes, ‘whi invites us to stay with the complex, often mixed or paradoxical nature of what is occurring, and not be scared of ‘not knowing’ for a period of time.’ (pp 62). He makes a plea for the importance of judgement within an ‘enabling infrastructure’ (pp 70) and offers a critique of technical rationality and of the rewards for ‘system compliance’. The section ends with our human responses to the environmental crisis.

The next chapter, Interrelating, asks, ‘How can we relate to others with greater whi?’ Drawing on his own learning journey, Parlett places great emphasis on the details of dialogue and presence, using stories and metaphor. For instance, he compares the ‘shared relational field that embraces any two or more parties who are conversing, with the … “intelligence” embedded in a woodland ecosystem’. (pp 104–5). He acknowledges here his debt to David Bohm in his promotion of dialogue which begins with good listening (pp 132). Again, the chapter ends at the global level in conflict resolution.

The third exploration, Embodying, was for me the most striking section. He starts with four obstacles to comprehending this dimension: limitations of language, understanding the body as a ‘way of knowing’, cultural unfamiliarity of embodied expression, and the commercialisation of the body. The ‘medical body’, he writes, is ‘medicalised, objectifying, detached, and technical’. He suggests medics become bilingual – as fluent in the lived body as the medical body (pp 141–2). This chapter moves through the sensual body, the intuitive body and beyond to a reminder that we are mortal flesh belonging to nature. The last few pages are devoted to a eulogy to great naturalists: Darwin, Jane Goodall, Alan Watson Featherstone, William Blake and others including Morris Berman for his ‘re-enchantment of the world’.

The penultimate exploration is Self-recognising. This embraces ‘self-maintenance’, self-knowing, reflecting on how to live, and finding purpose and coherence. He associates this dimension of whi with the power to direct our attention in a mindful and non-judgemental way, especially towards our own behaviour. Through knowing who we are in an integrated way, we can contribute to ‘truth-speaking’: ‘…it is often lone voices which sound alarms, or define the exact issues to be faced’ (pp 199). This is possible only with ‘a sense of ultimate purpose’ (pp 202). Crucial here is curious self-enquiry, kindness and self-compassion (not self-pity) often made possible by telling our own story (pp 210).

The final exploration, Experimenting, is a … ‘key feature of human existence all the time’ (pp 218). ‘Every time we follow an idea or proposal without a near-certain outcome, we are experimenting’ (pp 217). This is formalised as action research. Yet the dominant theme here is the tension between the urge to change and the urge to stay the same (pp 222). ‘In some communities, “change proceeds funeral by funeral”’ (pp 220). Whi here requires a balance of ‘core stability and new thinking’ with discernment to weigh the familiar and unfamiliar (pp 223–4). He particularly criticises formal education (including in medicine) for its preoccupation with ‘what is already known, and preferably known for sure’ – a powerful force for stagnation and waste of human potential (pp 230).

The last chapter, Returning to base, is a masterly statement of the book’s core ideas. So much of it is very close to the principles and ambitions of the British Holistic Medical Association! Parlett and the BHMA are both responding to our culture’s wayward trajectory, reaching similar conclusions and similar potential solutions. The book is easy to read, yet erudite and provocative. It is worth buying even if you read only the last chapter.

William House, BHMA Chair