

Obesity – a key issue in Public Health

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The aim of this article is to review one of the global health problems which societies face today – obesity. The author will focus on obesity in the United Kingdom (UK), although it is a threat to both developed and developing countries.¹ Economic growth and technological advances have enhanced health and life expectancy in a vast number of populations.² However, the obesity trends in the UK are getting worse and it is considered the worst western European country for obesity rates.³ The author will critically review local and national responses to this problem and offer some evidence-based ideas that might help to address the situation.

Obesity develops when an individual's caloric intake surpasses their energy expenditure over time.⁴ The World Health Organisation (WHO)¹ also offer a similar description. Obesity is defined as a disease in which excess body fat has accumulated to the point where one's health is put at risk. Governments and healthcare professionals are worried about the rising prevalence of overweight and obese people, the worry is also shared by the people who are overweight due to the health problems which develop as a result of excess weight.⁴

According to Pearson,⁴ the current climate in the UK supports high calorie consumption whilst also encouraging low levels of activity. Our current environment is often referred to as an 'obesogenic' environment encouraging this behaviour; less healthier choices are the default. The above factors interact with behavioural, genetic and other issues such as inequality in some population groups, for example, those who are socially deprived, on low income or with low levels of education. These groups of people are more at risk of becoming obese;⁴ although WHO¹ states 'obesity is a complex condition that affects virtually all age and socioeconomic groups.' Moreover, Pearson⁴ states that it is not possible to identify a single factor as the cause of obesity.

Public Health England (PHE)⁵ reported in 2015 that around two-thirds of adults (63%) in England are overweight (a body mass index (BMI) of over 25) or obese (BMI of over 30); obesity has grown by almost 400% in the last 25 years. Obesity has now surpassed smoking as a greater cause of cancer.³ The associate levels of sickness will put huge strains on the national health service (NHS), some estimates suggest that obesity-related disease costs the NHS £6 billion per year.⁵ The overall cost of obesity to the wider society is estimated at £27 billion. By 2050 the NHS costs attributed to overweight and obesity are projected to reach £9.7 billion, with the wider costs to society estimated to reach £49.9 billion per year.⁵

In some estimations, today's generation of children will be the first for over a century for whom life-expectancy falls.⁶ PHE is working to significantly reduce childhood obesity, contributing to the delivery of the Government's Childhood Obesity Plan.⁵ Wilson and Mabhala⁷ argue that whilst the prevalence of obesity is steadily rising, dieting is also increasing, mostly among young women, leading to eating disorders. There needs to be careful consideration of how health promotion advice is given out. In particular, during adolescence and early adulthood.

Thirty thousand premature deaths a year in England can be linked to obesity, it has been estimated that obesity shortens lives by nine years.⁴ Even if an individual can lose 10% of their weight, there is evidence that it produces important health benefits such as reducing the risk of coronary heart disease.⁵

Pearson,⁴ highlights that the body mass index (BMI) measures an individual's weight and defines overweight and obesity. It provides the most useful population level measure of obesity but there are drawbacks to using this measurement. Firstly, the measure does not take into account gender or age and secondly it does not distinguish between weight associated with muscle and weight associated with fat.⁴

As a society we may be able to change some factors that contribute to obesity. Over the past 50 years there has been a decline in physical activity. People in the UK are around 20% less active now than in the 1960s. If current trends continue, we will be 35% less active by 2030.⁵ Occupational work has generally become more sedentary, leisure time activities such as television viewing has replaced more active pastimes.¹ There has been a growth in the use of convenience foods such as fast-food restaurants. There is an increased consumption of fat and decrease in carbohydrate.⁴

Some factors that contribute to gaining weight cannot be changed, such as an individual needing to take certain medications, such as insulin, which can promote weight gain. Genetic factors such as endocrine disorders like hypothyroidism can also cause weight gain.⁴ Obesity affects an individual's health and well-being both physically and emotionally WHO.¹ Sometimes this is a vicious circle; an individual who is obese may find it harder to exercise thus put more weight on, likewise if individuals are feeling low in mood, they may want to eat food high in fat and sugars to improve their low mood.

Pearson⁴ talks about how health inequalities pose a particularly high risk to certain populations. This view is shared in the Marmot review⁸ which highlights the social gradient of health inequalities, the lower one's social and economic status the poorer one's health is likely to be. Those on low incomes often live in socially deprived situations. For example, Pearson⁴ states a person who is on a low income may have poorer access to shops and transport so have to rely on smaller local shops which are more expensive. Eating healthy is usually not their top priority, they need to feed their families with the cheapest foods available. On average, there are more fast-food outlets in deprived areas than in more affluent areas⁵ which may encourage unhealthy eating.

Furthermore, obesity rates are higher in certain ethnic groups such as people of South Asian origin⁴ as they often have lower socioeconomic status. Pearson⁴ argues that obesity has been connected with low levels of education, although not solely. Whereas, Dixon³ argues that obesity is not due to a deficit in knowledge. The prevalence of obesity is similar among men and women; however, men are more likely to be overweight.⁵ There is a strong relationship between deprivation and childhood obesity, PHE⁹ are working with local authorities to help make local environments healthier. Our metabolic control systems that govern regulation of our body weight are often influenced by social and environmental factors.⁴

Obesity increases the likelihood of an individual developing a vast amount of illness and diseases.⁵ Obese people are at an increased risk of certain cancers, for example obese people are three times more likely to develop colon cancer. Overweight and obese individuals are more than 2.5 times more likely to develop high blood pressure and five times more likely to develop type 2 diabetes;⁵ along with other health consequences such as back and joint pain.

Furthermore, obesity can damage people's prospects in life; people are less employable,³ obesity reduces a person's self-esteem and can harm their mental health.⁵

The National Service Frameworks (NSF) for coronary heart disease, diabetes and mental health¹⁰ address the prevention and treatment of obesity as well as the national strategies for cancer. However, this has not led to effective strategies for tackling obesity.⁴ Prevention of obesity needs to be challenged at many different levels. Communities, government policies, commercial influences and many other factors shape our ability to be healthy.³

Local health services need to work closely with education and leisure services, public transport and food provision outlets to ensure that the public can be motivated to be more active and eat healthier.⁴ There are particular measures local authorities can employ to help; for example, they can decline planning permission for a new food outlet if they can show that the outlet will have an adverse impact on the health and wellbeing of the local population and also if the outlet will undermine the local authority's plan to tackle obesity.⁵ Some local councils have restricted the opening of new hot food takeaways close to schools, leisure centres and other places frequently used by children. The school environment can have a powerful influence on a child's eating habits. Some children have a school lunch as their main meal, this meal is intended to provide a critical nutritional safety net. The PHE toolkit outlines the role schools can play to encourage healthy eating. For example, they can adopt a cashless system to speed up food service and reduce the need for the money to be spent outside of school.⁵ Some exercise initiatives have been taken on board at some schools such as the 'daily mile' which has been piloted in some areas such as Scotland.³

PHE⁵ has several national marketing campaigns that can be used locally to encourage the population to improve their lifestyle behaviours, such as the Change4life campaign. In the UK in 2018, there was the introduction of a 'sugar tax' on sweetened drinks.¹¹ Drinks containing more than 8g of sugar per 100ml faced a tax rate equivalent to 24p per litre. Either the levy cost was paid by the manufacturer or it was passed onto consumers. All revenues raised through the levy will directly fund new sports facilities in schools as well as healthy breakfast clubs. It is argued that the UK Treasury Department will benefit from this increase in revenue;¹¹ however, it is also an incentive for the industry to reformulate their beverages to bring them below the threshold for the tax. If industries choose to do this, the UK Treasury may not benefit as much as was predicted.¹¹ If this was the case, it could be conceived that the health of the population would improve and hospital admissions would decline for conditions such as diabetes; consequently, saving the NHS money.

Last year (2021) the NHS Digital Weight Management Programme was launched.¹² It has been backed by government funding and is designed to offer free online support via general practice (GP) and primary care teams for adults who have been referred as living with obesity and who also have a diagnosis of either diabetes, high blood pressure or both conditions. The aim of the programme is to help manage their weight and improve their health. A GP's involvement in these healthy strategies is one of the most effective interventions to reduce obesity.³ To coincide with this, the Government is also providing £30 million of new funding to councils across England to roll out expanded management services for adults living with obesity. This service may be more accessible to some as the service can be delivered face to face, in addition

to digitally. However, this service requires individuals to sign up for this themselves through their primary care services. However, this puts the responsibility onto the individual to become motivated to take this action. Furthermore, services will include only 12 weeks of sessions; after this 12-week period individuals would need to be motivated to maintain their healthier lifestyle. Marmot⁸ advises in order to address health inequalities, conditions need to be created to allow people to take control of their own lives. The neo-liberal ideological perspective asserts that individuals should take responsibility for their health, make their own choices and not to be told what to do by a 'nanny state'.¹³

The Marmot report⁸ identifies local government as a fundamental partner in addressing the social determinants of health inequalities. Local governments welcome the transfer of responsibility for public health from the NHS to local government.⁸ Further initiatives to halve the number of children living with obesity by 2030 are to focus on commercial drivers such as restricting advertising of products high in fat, salt and sugar being shown on TV and online before 9pm. Another strategy aims to restrict promotions of unhealthy food and drink in retail stores and to introduce calorie labelling in places such as restaurants and takeaways.⁹ There has been an increased consumption of the population eating meals away from home; which has been identified as an important factor contributing to increasing levels of obesity.⁵ Government strategies need to be supportive rather than nannying,³ the Government are more aware of this type of strategy.

The Whitehall studies show that there is a gradient in health not just a divide between rich and poor; a criticism, found in the Whitehall studies, of many public health interventions is that the interventions target downstream factors as mentioned above.⁸ For example, a person eating food high in fat and salt may only be doing so due to socio-economic factors (upstream factor) and despite having the right information regarding health and nutrition would still eat a diet high in fat and salt as this was the only option available to them on their budget. Therefore, giving information that such a diet is unhealthy is unlikely to change the individual's behaviour to eat more healthily. The upstream factor of their socio-economic status is frequently beyond the control of the individual. The gap amongst class is widened as educated people with money have more options to change their dietary lifestyle when given new health advice.⁸

To conclude, action on health inequalities needs to be carried out across all the social determinants of health, including education, occupation, income, home and community. Action places an emphasis on the role of local and national government, as well as the voluntary and private sector. Local needs should be identified to support targeting of the healthy recommendations, in order to achieve sustained behavioural changes. PHE's plan to tackle obesity includes looking at behaviour change relating to healthier eating and increasing physical activity as part of a whole systems approach.⁵

Something more radical has to happen to reduce the current obesity trends. The Covid-19 pandemic has made people aware that individuals living with obesity are twice as likely to die from Covid-19.³ Dixon³ explains that the Covid-19 pandemic has changed the way that people in the UK view the Government's role in improving our health. The pandemic has moved tackling obesity higher up the Government's agenda. A stronger focus is needed to improve obesity rates to protect the NHS and we have all been made aware of how important it is to protect the NHS during the pandemic. It is more vital

than ever to make it easier for people to move towards a healthier weight.⁹

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Book review

In Stitches: The highs and lows of life as an A&E doctor

By Dr Nick Edwards. Friday Project Limited; 2007

Review by Emma K Hodgson, Advanced Clinical Practitioner, Lancaster Medical Practice

In stitches is an exploration of Dr Nick Edward's A&E work during his time as a registrar, highlighting the emotional, personal, professional and political impacts encountered. Many of the emotions and situations encountered are relatable for many of us, either in our current roles, or roles undertaken during training. The book was born through his compassion for the NHS alongside the frustrations encountered, coped with through the expression of what he sees with humour. Compassion and support for the NHS is shared by many of us and has been seen by the rainbows from the public in the Covid-19 pandemic. These themes of compassion and politics are debated throughout the book, leading to the question, are these shared dilemmas others encounter? The likely answer is yes, as we have seen other medics produce books about their experiences with a desire to share a realistic viewpoint.

Honesty is often presented with sensitivity by Edwards, describing situations where patients would be better suited to being treated in another setting, whilst understanding that this is not the fault of the patient, but acknowledging wider system flaws and communication within management and/or politics. However, this does provide a transparency that is open to all to access. This could lead to the question, is this the right forum? Could the impact of politics and policy be better communicated? Yet, the realism and empathy of Edwards is evident through the collection of experiences. Rather than traditional chapters of a book, Edwards uses a delightful and extensive range of short scenarios with

headings that give a flavour of what is to come such as 'even more hospital inefficiencies' or 'this job is hard'.

Communication could be defined as a key theme throughout the book, from communication to patients when signposting to the 'Department of Diagnostic Imaging' also known as x-ray, to reasoning with patients who are under the influence of alcohol or drugs and teamwork in a cardiac arrest situation. Edwards underlines many examples of conversation we are all familiar with. Nevertheless, he is not afraid to talk about those more difficult conversations relating to complaints or misdiagnosis; examples include forgetting to give local anaesthetic before suturing a wound and missing a wrist fracture. Written in an empathetic manner it shows we all deal with a degree of uncertainty every day and by sharing his own doubts, fears and mistakes Edwards brings warmth to scenarios encountered.

Alongside the political humour, Edwards includes heart breaking and often sad situations to bring sincerity to the book. This highlights the reality and need for emotional intelligence to enable clinicians to cope with the job. One example included a lady in her 70s who presented unconscious and acutely unwell who was found to have a perforated bowel; emergency surgery led to a full recovery. One of these more difficult scenarios was talking about a 13 year old presenting with abdominal symptoms, all the tests were normal but on further investigation it turned out she had watched her mother die only a few months ago. Edwards shows how A&E deals with highs and lows, which could be arguably transferred to many medical settings.

Edwards ends with some rather reflective thoughts, which are more sincere than the political humour carried through the rest of the book. I would recommend this book to those who would like a reflective, humorous and relatable read, or perhaps those outside the medical profession who are interested in what really happens in A&E from the eyes of the medics.