Obesity management in primary care

The Counterweight Project was launched in 2000 as the result of a national group of consultant physicians recognising the need to tackle obesity management in primary care. Counterweight is the only fully evaluated, evidence based primary care weight management programme within the UK. It is a low-cost nurse-led programme that equips GPs and practice nurses to be able to produce evidence-based approaches to weight loss management.

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Medical management of cardiovascular disease (CVD) has led to significant reductions in CVD mortality but morbidity continues to increase. This is substantially linked to the unabated increase in the prevalence of obesity in the UK. Overweight and obese patients are at high risk for further complications due to elevated risk factor levels.[1] In addition, CVD risk reductions observed in the general population are being partially offset by the increase in body mass index (BMI) and the prevalence of diabetes.[2] The population rate for obesity (body mass index (BMI) ≥30 kg/m^2) is currently around 25% compared with only 6-8% 20 years ago.

Life expectancy has increased by approximately three months for each year over the past three decades, so the need to maintain these as healthy years is paramount. This key aim applies particularly to the older adult where healthcare intervention should achieve optimal quality of life within the extended life expectancy. More elderly patients suffer from sarcopenia: a reduction in muscle mass alongside relative increase in body fat. So at any given weight, BMI or waist circumference, a more elderly individual will possess more body fat than their younger counterpart, which adversely affects their obesity-related risk.

The prevalence of obesity-related pathology rises with increasing BMI. The risk of developing type 2 diabetes doubles at BMI 23 to <25 kg/m^2 compared with BMI <23 kg/m^2, increasing exponentially to around 40-fold at BMI >35 kg/m^2.[3]

UK Primary Care audit data has shown that the increase in CVD risk in the obese, compared with the normal weight population, is approximately eight-fold. Diabetes risk in the obese was 25 fold that of the normal weight population. These increased risks show a continuum of rising risk with rising BMI (figure 1). While weight management interventions will not achieve weight "normalisation," moderate weight loss will bring significant clinical benefit (figure 1).[4]

The current economic climate demands that interventions need to not just provide proof of clinical effectiveness but also some measure of economic benefit.

The Counterweight Programme

The Counterweight Programme has been shown to be effective, with 30% of patients followed up at 12 months achieving clinically beneficial weight loss of >5% (approximately >5 kg from baseline).[5] With a mean age of 49·4 years, almost half the patients recruited to Counterweight were in the age group of >50 years. Mean weight loss at 12 months was –2·96 (95% CI–3·47 to –2·44). Mean weight loss at 12 months among patients

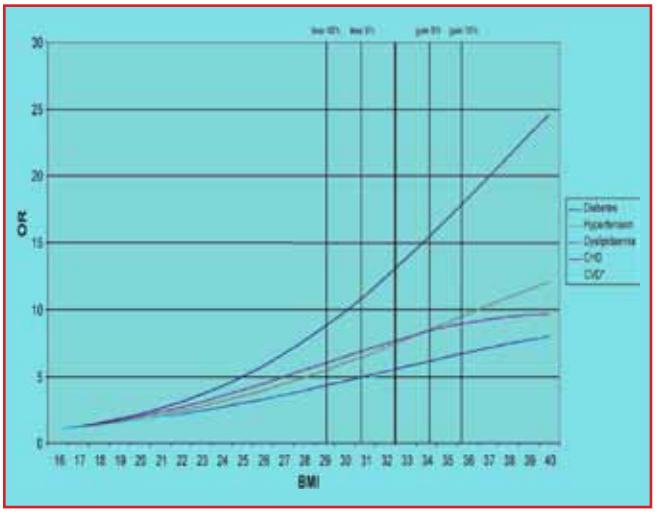


Figure 1: Cardiovascular disease and diabetes risk related to BMI, and the potential change in risk resulting from a 5% or 10% weight gain or loss

Box 1: Baseline characteristics of the Counterweight research population n=1906 (2000–2006)

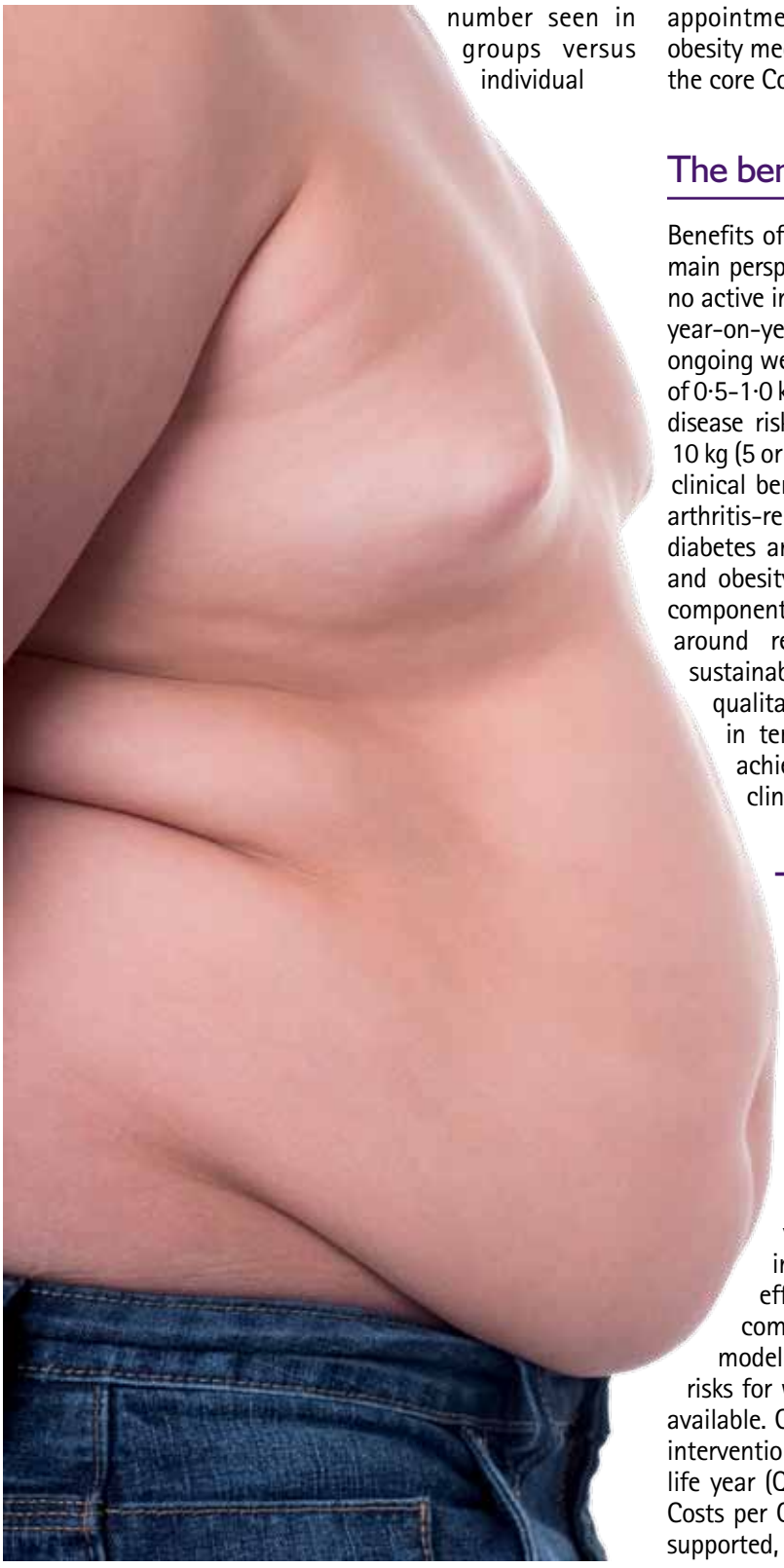
	n	%	Mean
Age	1906	100·0	49.4
Female	1468	77·0	
Male	438	23·0	
BMI 30 kg/m^2 (or BMI > 28 kg/m^2 with co-morbidities)	1906	100·0	37.1
BMI > 40 kg/m^2	485	25·4	
Diabetes	258	13·5	
Impaired Fasting Glucose (>5.6 mmol/L)	229	21·4	
Cardiovascular Disease (MI, Angina, CCF, TIA, Stroke)	152	8·0	
Known hypertension	612	32·1	
Known hypertension or BP ≥140/≥90 (≥130/≥80 diabetes)	1153	60·5	
Known hyperlipidaemia	239	12·5	
Known hyperlipidaemia or total cholesterol >5 mmol/l	958	50·3	
Any comorbidity*	1408	73·9	
2 or more comorbidities	916	48·1	
3 or more comorbidities	533	28·0	
Ex-smokers	575	30·2	
Practice in affluent area**	651	34·2	
Practice in intermediate derivation area**	562	29·5	
Practice in deprived area**	693	36·4	

* Comorbidity—diabetes, angina, hypertension, hyperlipidaemia, myocardial infarction, congestive cardiac failure, transient ischaemic attack/cardiovascular disease/stroke, oedema, arthritis, depression, breathlessness, back pain.

** Affluence graded 1-10 England (E) and 1-7 Scotland (S). Affluent: E8-10, S1-2; Intermediate: E4-E7, S3-S5; Deprived: E1-E3, S6-S7.[7,8]

aged ≥65 years was -2·71 kg (95% CI -3·50 to -1·92) with no convincing evidence that weight loss was better or worse with increasing age. Using evidence-based approaches that aim to reduce energy consumption and increase energy expenditure underpinned by behaviour change strategies, the programme provides a structured approach for clinicians managing patients attending UK general practice.[6] Counterweight specialists (dieticians or registered nutritionists with specialist training and knowledge in obesity) train and support primary care staff. This includes a process of mentoring until staff achieve set competency levels. Initiated in 2000 by a group of leading experts in the field of obesity, the programme was initially evaluated in 65 general practice settings across the UK. Patients routinely attending general practice were recruited into the programme to receive support in managing their weight and their baseline characteristics are shown in Table 1. Appointments were every fortnight for an intensive period of three months then quarterly follow up to 12 months followed by annual reviews. Total general practice time to deliver the programme amounted to an average of 130 minutes per patient. Since 2006 Counterweight has been subject to continuing audit and improvement. The programme has been implemented by the Scottish Government through all Health Boards (except one) and across many English PCTs.

As new medical treatments develop and improve, the cost to the UK taxpayer to resource the NHS continues to be challenged. People are living longer, and surviving medical conditions better, increasing the demand on resources. In general terms the average cost to the NHS of delivering care to one person with diabetes is £653 per year while for someone with coronary heart disease the cost is around £1637 per year. This compares with the considerably inexpensive option of providing evidence-based weight management which for Counterweight is in the region of £60 per year, mostly required for staff time to deliver the intervention.[9] The standardised costs were calculated from data gathered from the programme on the number of patient contacts, length of time for appointments,



number seen in groups versus individual appointments, referrals to other services, use of anti-obesity medications and the training support required from the core Counterweight team.

The benefits of moderate weight loss

Benefits of moderate weight loss can be viewed from two main perspectives. Firstly, there is cost avoidance, for with no active intervention patients will have an augmented risk year-on-year related to their BMI (figure 1). Preventing the ongoing weight increase observed in the general population of 0·5–1·0 kg per year in turn halts the ongoing rise in clinical disease risk. Secondly, actual weight loss of around 5 or 10 kg (5 or 10% loss from baseline) has been shown to bring clinical benefits including improvements in lung function, arthritis-related disability, blood pressure, development of diabetes and its control, lipid profiles, all-cause mortality and obesity-related cancer such as colon cancer.[10] A key component of the Counterweight programme is discussion around realistic, achievable, clinically beneficial and sustainable weight loss as findings from independent qualitative research indicated improved outcomes in terms of concordance with the programme and achieved weight loss outcomes when patient and clinician were in agreement on weight loss targets.[11]

The health economic case for weight management

The economic benefits and costs of the Counterweight weight management programme have been examined using the model developed by NICE for its obesity guideline,[12] inputting the costs of Counterweight and its outcome evidence. The model took the weight changes observed in the Counterweight population at one and two years against the background rate of change in the general population and examined the effect that would have on the risk of developing comorbidities. A conservative approach was taken modelling only the CVD, diabetes and colon cancer risks for which firm established data linked to BMI were available. Current guidance on the cost effectiveness of an intervention normally considers a cost per quality adjusted life year (QALY) of around £20–£30,000 as of good value. Costs per QALY above this level are much less likely to be supported, while low cost per QALY are considered highly

cost effective. The Counterweight programme proved to be so cost-effective that it was actually cost-saving compared to no intervention for obese patients in primary care.[13] Various sensitivity analyses were carried out around the Counterweight data. Counterweight remained dominant over no action in most situations and even when compared with a conservative background rate of weight gain of 0·3 kg the QALY cost was still only a very low £2651 when weight was assumed to return to level of no intervention after two years.

For obese individuals who are concerned about their weight, it is therefore inappropriate for the NHS to leave them untreated in primary care, but to implement Counterweight, a proven weight management programme.

Conclusions and recommendations

The work carried out around the cost and clinical benefit of providing Counterweight in UK general practice provides compelling evidence to support this programme. The current dilemma is in terms of the short-term competing priorities and resource availability. The current system of general practice remuneration rewards activity around specific clinical areas and resource is therefore directed (successfully) toward these clinical priorities but away from unincentivised clinical areas. While weight management impacts on many incentivised areas such as CVD and diabetes, only 11 of a maximum of 1000 reward points focuses specifically on obesity and is awarded purely on the basis of recording obesity rather than active intervention. Competing priorities will mean that patients may not receive what could be very valuable support not just in terms of their current and future health and wellbeing, but also that longer term disease and cost avoidance does not occur. The argument is not what should be done but how to free up resource now to save money later. One avenue would be to have specific reward in the current GMS contract: very good evidence exists around the impact of incentivisation on clinical activity. Alternatively, rather than using just existing practice nurses and health care assistants, health boards, SHAs, or PCTs could more centrally commission specific staff teams to deliver weight management in local community areas. With planned change to NHS configuration, GP consortia might take on such a PCT role. The local expenditure can be looked upon in a different way. Thus, using the example of diabetes only even a two year delay in the onset of the condition for one patient would prevent over £1200 expenditure on diabetes care representing sufficient resource to provide 20 patients with the support of the Counterweight programme.

While securing adequate resource for weight management support in the current economic climate leads to difficult choices having to be made, the alternative of doing nothing may ultimately prove even more damaging to the resource needs of the UK NHS.

I am a board member of Counterweight but beyond that have no conflict of interest to declare

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