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Beyond body mass index: rethinking doctors' advice for weight loss

Doctors should provide high quality, evidence based care reflecting individual preferences and needs, regardless of weight, argue Juan Franco and colleagues

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Doctors have traditionally recommended lifestyle interventions to achieve weight loss for people with a high body mass index (BMI). However, rigorous evidence has indicated that lifestyle interventions, which involve a change in behaviour with a focus on restriction of energy intake and increased physical activity, have little to no effect on sustained weight loss and no benefits on hard outcomes such as cardiovascular events or mortality.[1-3] Moreover, a focus on weight loss may contribute to discrimination and internalised stigmatisation, which are related to other social inequalities based on factors such as gender, sexuality, class, and ethnicity.[4-7]

Doctors know that weight can be a sensitive topic to discuss with patients,[8] and recent clinical guidelines reflect the growing recognition that weight is an inadequate measure of health. For example, the Edmonton Obesity Staging System (EOSS), a triage tool used in clinical practice to assess the severity of obesity, includes not only weight and other anthropometric measures but also the presence of signs and symptoms or comorbidities associated with obesity.[9] Acknowledging that weight alone might not give an adequate picture of someone's health, and recognising the limitations of lifestyle interventions for weight loss, could pave the way for more effective and patient centred care.

Limited evidence for lifestyle interventions

Lifestyle interventions have for many decades been the mainstay recommendation to reduce weight in people with obesity. However, such an approach has important limitations. A systematic review published in 2022 encompassing 13 trials found that adults with a BMI ≥25 randomised to lifestyle and weight loss interventions lost 1.8 kg on average after two years (95% confidence interval 2.8 to −0.8 kg), compared with usual care.[2] This indicates that lifestyle interventions are largely ineffective in providing sustained long term weight loss. For children and adolescents, low to very low certainty evidence indicates similar findings.[10-12]

The same seems true for the mortality benefits of lifestyle interventions for weight loss: in 2013, the Look Ahead randomised controlled trial, which included 16 study centres and 5145 participants with obesity and type 2 diabetes, found that although intensive lifestyle intervention for weight loss improved some cardiovascular risk factors, it did not affect the risk of either microvascular or macrovascular complications or cardiovascular death.[13]

The Look Ahead study was included in a systematic review of randomised controlled trials that found that lifestyle intervention for weight loss in people with prediabetes or type 2 diabetes did not reduce cardiovascular or all-cause mortality.[3] The meta-analyses on cardiovascular mortality, which included 11 017 participants with a mean age of 54.6 and a mean BMI of 31.8, found a relative risk of cardiovascular death of 0.99 (95% CI 0.79 to 1.23) compared with usual care. For all-cause mortality, the relative risk was 0.93 (0.85 to 1.03) compared with usual care, based on 16 554 participants with a mean age of 55.5 years and a mean BMI of 30.5.[3] However, the reduction in risk may be attributable to confounders such as changes in exercise or eating habits or other changes in life conditions related to the interventions rather than weight loss itself.[14]

Another systematic review and meta-analysis of lifestyle interventions for weight loss in mixed BMI populations indicated an absolute risk reduction of <1% in all-cause mortality and no difference in cardiovascular or cancer specific mortality.[15] This, of course, might not apply to the extreme accumulation of adiposity.[16]

These studies suggest that although lifestyle interventions for weight loss might help patients improve cardiovascular risk factors such as blood pressure, they do not result in a reduced incidence of cardiovascular events or mortality. Even though a healthy lifestyle provides important benefits, weight does not seem to be the determining factor in achieving these benefits. For instance, a study including 11 761 participants found a linear association between the number of healthy habits and mortality independent of weight.[17] This suggests that people with a high BMI can be healthy and that high weight may not be such an important indicator of health as we have traditionally considered it. Furthermore, structural public health interventions that include reducing barriers to physical activity and facilitating access to healthy nutrition may be more effective than individually targeted lifestyle interventions for weight loss to improve health.[18]

Harms of focusing on weight

Focusing on weight loss might contribute to societal weight bias—that is, negative attitudes, assumptions, and judgments about people based on their weight.[19 20] Weight bias has been identified in children as young as 3 years old, who associate children with larger bodies with negative characteristics[21] and prefer not to play with or help them.[22 23] Weight bias may not only have adverse

effects on mental health but may also be associated with disordered eating, the adoption of unhealthy habits, and weight gain.[24]

Being labelled as overweight or obese is interconnected with weight bias, as it increases the risk of developing disordered eating, internalised weight stigma, and body dissatisfaction.[25,26] Eating disorders and weight dissatisfaction, in themselves, are associated with an increased risk of type 2 diabetes and thus might cause physical harm.[27-29] The Eating Disorders in Weight Related Therapy (EDIT) Collaboration conducted a systematic review of evidence from randomised trials and was unable to identify a higher risk of eating disorders in weight loss interventions. However, only a few studies provided evidence for this outcome, and they all had short term follow-ups.[30] Most of the included trials compared two or more weight management intervention groups, hampering the ability to identify any differences. The collaboration has published a protocol for a meta-analysis of individual patient data to clarify this issue.[31]

Lifestyle interventions rely on the individual's ability to, for example, restrict energy intake and perform physical activity. People with high weight or large bodies are often negatively stereotyped as lazy or lacking discipline, resulting in them self-blaming when unable to lose weight.[32,33] As lifestyle interventions fail to result in substantial weight loss in most people who try, the efforts may contribute to internalised stigma, where an individual unconsciously adopts the externally ascribed characteristics.[34,35] Internalised stigma is associated with disturbed eating, self-harm, depression, and suicidal ideation.[36] Furthermore, experience of weight discrimination is associated with increased mortality,[37] and some of the excess morbidity and mortality found in people with high BMI may be explained by the downstream consequences of discrimination and stigma.[38]

The harms related to weight bias are not just interconnected but also linked to other social inequalities based on factors such as gender, sexuality, class, and ethnicity.[4-7] These factors combine to form unique forms of discrimination, stigmatisation, and stereotypes.[4,39,40] Furthermore, these intersections are also associated with an increased risk of obesity in these groups, which highlights the complex burden of high weight and stigma in these subpopulations.[41]

What do clinical practice guidelines say?

Weight bias and weight stigma are increasingly referenced in international guidelines for managing obesity. For example, Obesity Canada, a non-profit organisation aimed at improving the lives of people with obesity, has published a comprehensive framework to reduce weight bias and stigma, *Reducing Weight Bias in Obesity Management, Practice, and Policy*.[8] The clinical guidance includes avoiding stigmatising language and images, emphasising the limited benefit of individual lifestyle interventions, and focusing on health and quality of life for patients irrespective of their size.[8] The American Association of Clinical Endocrinology suggests focusing on surrogates other than weight to reduce internalised weight bias.[42] The update of the Argentinean guideline on the integral management of obesity in adults includes guidance on obtaining consent for weighing patients and being careful about ascribing patients' symptoms to their weight, among other initiatives to reduce weight stigma in consultations.[43]

The Canadian and Argentinean guidelines both emphasise the importance of creating inclusive environments in clinical practice for people of different body sizes, including chairs, beds, and blood pressure cuffs.[44] The Canadian guideline for managing obesity in adults has proposed five As,[45] where the first A stands for asking permission to discuss weight, allowing a non-judgmental exploration of patients' preferences and motivations. For patients whose weight has remained unexplored in previous consultations, this could offer the opportunity to discuss weight and provide them with the information about health and weight that is necessary to make informed healthcare choices.

Researchers have proposed that, for interventions with limited benefits and important harms, patients should be given the option to do nothing.[46] Obesity Canada recently published guidelines for children,[47] and its guidelines for adults have been adapted for use in Chile and Ireland.[48] However, this may have a limited impact without a thorough reform of the competencies of healthcare professionals, who are currently trained in weight centric approaches.[49]

Although awareness of weight stigma is growing, lifestyle interventions focusing on weight loss are often recommended in guidelines as primary treatments without acknowledging potential harms or their relation to weight bias (table 1). This does not mean that doctors necessarily contribute to stigma by following such guidelines, but the guidelines miss the opportunity to support clinicians in reducing weight bias in the management of obesity. Without these considerations and adequate support for patients and clinicians, recommendations to improve lifestyle that are designed to avoid weight bias can become generic and stigmatising weight loss advice.[57]

Table 1 | Examples of treatment advice in international guidelines on weight loss

Guideline	Lifestyle/weight loss advice	Expected benefit	Expected harms
Argentinian Ministry of Health:			
Children and adolescents[50]	"Overweight and obese children and adolescents should be motivated to make long-term changes to their lifestyle. As positive changes occur, a loss of small but constant weight"	"Regular physical activity helps control the triggers and perpetrators of obesity, provides benefits at the cellular level and increases feelings of well-being." (adults)	"A lack of treatment for obesity is associated with more frequent adoption of unhealthy methods of weight control by adolescents and an increased risk of developing eating disorders." "The risk of developing eating disorders secondary to a weight control programme has rarely been documented" Possible harms related to the intervention (weight stigma) are not mentioned
Adults[43]	"In people with obesity who wish to start treatment, it is recommended to offer multicomponent interventions including nutritional therapy, physical activity and behavioural interventions"	"Multicomponent lifestyle interventions may lead to an improvement in cardiovascular risk factors, reduced risk of diabetes and mortality"	The interventions do not increase the risk of adverse outcomes
American Academy of Pediatrics[51]	"Intensive health behaviour and lifestyle treatment are recommended as mainstay treatments. Consists of a supervised diet program for 3 to 12 months that includes children and their caregivers"	A small reduction of BMI and weight but inconclusive results for quality of life and mental health. Benefits for comorbidities are claimed but are based on cross-sectional studies or observational studies between children and adolescents with different BMIs	Self-guided dieting results in greater weight fluctuation and disordered eating patterns that could be reduced with structured programmes. Obesity is associated with poor psychological and emotional health, increased stress, depressive symptoms, and low self-esteem due to social stigma
US Preventive Services Task Force (adults)[52]	Intensive, multicomponent behavioural intervention for all adults with BMI >30 (Grade B).	Expected benefits: Behaviour based weight loss interventions in adults with obesity can lead to clinically significant improvements in weight (5%) and reduced incidence of type 2 diabetes	Harms are small to none, based on the absence of reported harms in the evidence and the non-invasive nature of the interventions. Concludes no serious harm
Canadian adult obesity clinical practice guideline[44]	"The guideline recommends a 5-step plan for weight intervention: Recognition of obesity as a chronic disease by healthcare professionals; assessment of the person suffering from obesity; discussion of the main treatment option and complementary therapies that may be necessary, including psychological, pharmacological and surgical interventions; agreement with the person suffering from obesity on the goals of therapy; engagement of healthcare professionals with the person suffering from obesity in ongoing follow-up and re-evaluations."	"The weight loss achieved with health behavioural changes is usually 3%–5% of body weight, which can result in meaningful improvement in obesity-related comorbidities."	"People living with obesity face substantial bias and stigma, which contribute to increased morbidity and mortality independent of weight or body mass index."
Chinese national guidelines (children, adolescents, and adults)[53]	"Behavioural counselling should be given to all individuals on medical weight loss programmes"	Reducing body weight leads to an improvement in cardiovascular risk, sleep quality, cardiorespiratory fitness, and reduced anxiety: "In 2018, a systematic review by the US Preventive Services Task Force included 122 RCTs with a total of 62,533 patients and found that compared to the control group, interventions based on behavioural counselling resulted in more weight loss and less weight regain during 12 to 18 months" ("Mean absolute changes in weight ranged from −0.5 kg (−1.1 lb) to −9.3 kg (−20.5 lb) among intervention participants and from 1.4 kg (3.0 lb) to −5.6 (−12.3 lb) among control participants."[54]	Not mentioned
UK (NICE) guidelines (children, adolescents, and adults)[55]	"Multicomponent interventions are the treatment of choice. Ensure weight management programmes include behaviour change strategies to increase people's physical activity levels or decrease inactivity, improve eating behaviour and the quality of the person's diet, and reduce energy intake"	Patients with diseases such as type 2 diabetes and cardiovascular diseases can benefit from weight reduction. However, the evidence is not very precise in defining whether weight is a predictor of disease: "Give adults information about the severity of their overweight or obesity and central adiposity and the impact this has on their risk of developing other long term conditions (such as type 2 diabetes, cardiovascular disease, hypertension, dyslipidaemia, certain cancers and respiratory, musculoskeletal and other metabolic conditions such as non-alcoholic fatty liver disease)"	Ensure services cause no harm (awareness of stigma in communication, adequate equipment, etc). If performed by a health professional. Self-reporting the weight-to-height ratio and self-interpreting the results before consultation are recommended to reduce the sense of discomfort or stigma

Table 1 | Examples of treatment advice in international guidelines on weight loss *(Continued)*

Guideline	Lifestyle/weight loss advice	Expected benefit	Expected harms
World Health Organization (children and adolescents)[56]	Dietary, exercise, or combined lifestyle interventions showed a small but significant effect on BMI, a reduction in BMI and a reduced prevalence of overweight and obesity	The guideline states that intervention in overweight or obese patients will improve physically and mentally. As well as reducing their risk of cardiovascular disease, diabetes, and premature death in adulthood	Not mentioned

Patient centred care

Alternative weight inclusive approaches, such as Health at Every Size (HAES), centre on health and acknowledge the social determinants of health and that good health can be achieved regardless of weight loss.[58] HAES aligned approaches, including intuitive eating and enjoyable physical activity, have shown promising results in improving eating behaviours in selected populations (primarily women).[59] As with other approaches, these should be evaluated in large randomised controlled trials, including systematic assessment of harms and benefits.

Although evidence is lacking in this emerging field, doctors can learn from such approaches and current trends in guidelines to provide better and more compassionate care for patients with larger bodies (box 1). This includes ensuring that equipment and clinic facilities accommodate larger bodies. It also involves seeking permission to discuss weight and being mindful of the term the patient prefers to use to describe their body.

Box 1: How to provide compassionate and patient centred care for people with larger bodies

- Ensure equipment and facilities meet the needs of larger bodies[8]
- Ask patients' permission to discuss weight and ask the terminology they prefer to describe their body[8 55]
- Engage in discussions about the desire for weight loss
- Be careful not to ascribe patients' complaints to their weight[43]
- Focus treatment on a broader range of health outcomes beyond weight and identify and agree on these in collaboration with the patient[8 42]
- Respect the decision to do nothing
- Be non-judgmental; do not provoke guilt in your patient or make assumptions about their lifestyle[45]
- Acknowledge that weight management is difficult and hard to sustain[8]

Systematically recommending weight loss, without being mindful about the potential harm, might also medicalise high weight and implicitly endorse a normative perspective on weight, whereby higher weight is inherently considered undesirable and unhealthy, thus promoting the necessity of weight loss.[60] This embedded normativity underlies weight bias in society, putting pressure on both doctors and patients to pursue the often frustrating and challenging goal of losing weight. If doctors are aware of these pressures and concentrate on asking, listening, and deciding together what is most important, they can mitigate some of the unintended harms of current approaches. Patients may still wish for weight loss advice, and doctors should be prepared to engage in conversations with their patients about the drivers for weight loss, potentially identifying internalised weight stigma, cultural experiences, and social pressures surrounding the desire to lose weight, as well as social determinants of health.

Thus, doctors should be prepared to inform individuals seeking weight loss about the potential benefits and harms of interventions and minimise the risk of developing eating disorders and long term impacts on metabolism. Pharmacological interventions, including GLP-1 receptor agonists, might reduce weight and other hard outcomes, but they are associated with frequent gastrointestinal side effects, and weight regain is expected when patients discontinue treatment.[61] These weight centric pharmacological approaches raise similar concerns to lifestyle interventions in terms of potential stigma. Furthermore, the present indications for pharmacological weight loss may include 20-30% of the population in most countries, and their implementation requires important public health considerations.[62] If the final decision is to pursue changes in lifestyle for weight loss, use of weight loss drugs, or bariatric surgery, the goals should be defined by outcomes important to the individual instead of pre-specified anthropometrics.

Focusing on weight, doctors would need to spend a large proportion of their time providing ineffective advice on lifestyle changes, which would affect their ability to provide person centred care for other conditions in which they can be more helpful.[55 45]Structural public health interventions, including reducing barriers to physical activity and facilitating access to healthy nutrition, may be more effective than individually targeted lifestyle programmes in improving health in people with high weight.[18]

Such a patient centred approach is likely to provide better care by aligning with patient preferences and circumstances while also reducing weight bias. Moreover, clinicians can be trained to routinely integrate the concepts of weight bias and weight stigma with other clinical parameters for managing obesity and to raise awareness of the prevalence of eating disorders and disordered eating.[49] While the societal nature of weight bias limits the extent of change possible within individual consultations, clinicians can have a critical role by ensuring their practices do not reinforce such biases. Doctors' advice about healthy eating and physical activity is still relevant as it may result in better health. The main goal is to offer good care irrespective of weight, which means not caring less but rather discussing benefits, harms, and what is important to the patient.

Key messages

- On average, people with high weight will not be able to sustain a clinically relevant weight loss with lifestyle interventions
- Weight changes may not be reliable predictors of health
- The potential harms of weight loss interventions, including the reinforcement of weight stigma, are largely understudied and unacknowledged
- Rather than providing lifestyle counselling for weight loss, doctors should focus on patients' needs and improving health
- Discussions about weight should be contextualised with social pressures and evidence on the absolute benefits and harms of lifestyle interventions for weight loss

Contributors and sources: JVAF is a family physician and researcher specialising in evidence synthesis, and together with DG and BC, has been working on the topic of weight centric care in systematic reviews and guidelines. LBC is a gender and fat studies researcher and leads the research project Feminist Activism in Transition (FAT), which analyses public discourse and activism around fatness in Denmark. RKR is a general practitioner and representative for the Danish National College of General Practitioners in matters regarding weight and health. He has been doing research on weight and health since 2011. RKR is the editor of the national treatment guidelines for general practice in Denmark. LM is a clinical psychologist and postdoc whose PhD was about the treatment of binge eating disorder. She often acts as the representative for the Danish Psychologist Association in matters regarding high weight. RKR and LM are currently involved in a co-design project to develop a weight-neutral health intervention suitable for Danish municipalities. EG is doing a PhD about overdiagnosis and unintended consequences of health interventions and suggested initially that "overweight" could be an example of an overdiagnosis. All authors have contributed intellectually to the development of this manuscript. JVAF and EG are joint first authors.

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