Pervasiveness, impact and implications of weight stigma

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Summary

Evidence has accumulated to demonstrate the pervasiveness, impact and implications of weight stigma. As such, there is a need for concerted efforts to address weight stigma and discrimination that is evident within, policy, healthcare, media, workplaces, and education. The continuation of weight stigma, which is known to have a negative impact on mental and physical health, threatens the societal values of equality, diversity, and inclusion. This health policy review provides an analysis of the research evidence highlighting the widespread nature of weight stigma, its impact on health policy and the need for action at a policy level. We propose short- and medium-term recommendations to address weight stigma and in doing so, highlight the need change across society to be part of efforts to end weight stigma and discrimination.

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Introduction

Empirical evidence shows that the drivers of weight gain are complex, and the human body is hard-wired against weight loss.[1,2] Despite this, a common misconception is that a person's body weight is within an individual's control and that obesity results from individual choices, and as such, can be reversed easily by eating less and exercising more. This belief reinforces negative stereotypes of people living with obesity including laziness and lacking willpower.[3] Assumptions that weight is under voluntary control misleads public health policies, confuses messages in popular media, undermines access to evidence-based treatments, and compromises advances in research.

Weight stigma refers to negative attitudes and beliefs that devalue people based on their weight status[4] that may include bias, discrimination, stereotyping, social exclusion, and whilst experienced by people of all weights, is mostly directed towards people living with obesity (Supplementary Material). Experiences of weight stigma can cause considerable harm including compromised psychosocial wellbeing, depressed mood, increased metabolic risk factors and lower self-esteem.[5,6] For instance, the English Longitudinal Study of ageing, perceived weight discrimination explained approximately 40% of the association between obesity and depressive symptoms or poor psychological health status, with associated increases in cortisol,[7] and higher circulating C-reactive protein levels in the Health and Retirement Study in the US.[8] In another UK study, perceived weight discrimination explained 29% of the association between obesity and physiological dysfunction.[9] The mechanisms underlying the negative physiological associations with weight stigma are not fully understood, but may reflect those of chronic social stress.[10]

Research has also reported that experiencing of weight stigma is associated with increased stress and calorie intake, can lead to weight gain – both children and adults who experience weight discrimination have an increased likelihood of transitioning from overweight to obesity compared to those who do not experience weight discrimination[11–13] and may contribute to health disparities and increase risk of mortality.[10,11,14–17]

In addition, substantial evidence shows experiencing weight stigma leads to maladaptive responses,

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including increased intake of high-calorie foods regardless of BMI,[14] exercise and healthcare avoidance,[15] and associated with unhealthy eating behaviour including emotional overeating and binge eating.[14,18,19] Research exploring the experiences of weight stigma in children and young people likewise demonstrates its association with serious psychosocial and physical consequences including increased risk of depression, anxiety, social isolation, substance use, suicidal thoughts, poor body image, low self-esteem, unhealthy eating behaviours, binge eating, decreased physical activity, and increased weight gain.[19–21] Thus, empirical evidence demonstrates that the belief that weight stigma can be an effective tool to encourage weight loss amongst people living with obesity is a societal misconception.

To reduce its impact, weight stigma must be recognised and addressed by the public health community including policymakers. Ending weight stigma is paramount, not only from a human rights and social justice standpoint, but to advance the prevention and where relevant, treatment of obesity.[22,23] Moreover, as expected for any other health condition, it is essential that the voice of people living with obesity is heard. There has been longstanding support for patient and public involvement in health and social care policy and research.[24,25] However, the involvement of people living with obesity in relevant healthcare policy has been questioned and is not as apparent as policy relating to other health conditions.[26]

This review provides a summary of recent, high quality evidence relating to the prevalence and impact of weight stigma with a particular focus on public health, interventions to reduce stigma, and recommendations for policy and practice. We recognise that weight stigma and discrimination is evidenced in other settings such as education and employment,[27–33] which impact health and thus also need policy considerations (e.g. anti-bullying and harassment), but are outside of the scope of this review.

Stigma and public health

Historically, Governments have not responded appropriately to health conditions that primarily impact “socially undesirable groups”,[34] such as the people living with obesity or those living with human immune virus (HIV). Obesity policies are, in some instances, stigmatising,[35] and despite evidence showing the biological and genetic drivers of weight regulation,[36] policy frames it as a personal responsibility. This has resulted in a rhetoric focusing solely on diet and exercise as opposed to acknowledging other known drivers of obesity such as poverty.

Discrimination has previously been an excuse for inaction and impeded efforts to resolve health disparities, such as in the US related to African Americans and HIV,[34] with society and Government blaming individuals. The same can be said about obesity, where both Government and society blame individuals for “not taking adequate responsibility for their own health”, which can enable the relinquishing of Government responsibility to appropriately address environmental and societal drivers.[34] Instead, policies must move past this antiquated view of obesity and focus on influencing societal change that address the wider determinants of health associated with obesity. To engender real change, public support is essential for Governments to act, particularly when this change relates to people who are considered the most vulnerable in society. However, societal opinion of people living with obesity remains one of blame, ridicule, disgust and dislike,[37,38] and thus, what motivation does the Government have to make institutional change?

The ‘obesity strategy’

The predominant focus of most global obesity strategies is to ‘encourage’ behaviour change and to educate people living with obesity about personal choices, with ‘eat less and exercise more’ the main message. This focus is born out of the aforementioned belief that obesity is determined solely by personal choice, and that people are unaware of their own weight status with poor understanding of weight management.

In July 2020, UK Government released its new obesity strategy for England apparently driven by Prime Minster Boris Johnson’s hospitalised from coronavirus (COVID-19). The suggested measures aimed to get the nation fit and healthy and included a 9pm watershed on advertising foods high in fat sugar and salt, removal of ‘buy one get one free’ offers in supermarkets, calorie displays on menus and the introduction of the “Better Health’ campaign.[39] However, from the outset, there were concerns that the policy would focus on personal choices, contributing further to stigma and discrimination of people living with obesity; people it intended to help.[40] Indeed, the subtle undertone and messages remained one of personal responsibility, with research reporting negative sentiments to the ‘Better Health’ campaign.[41] The impact of COVID-19 was considered the UK’s “wake up call”, however, the Government have struggled to adequately rise to the challenge and deliver on their promises; many of the measures above yet to be actioned. Emprical research has shown that public health interventions may actually lead to unintended weight stigma.[42] For instance, Hayward and Vartanian reported that exposure to graphic warning labels placed on sugar-sweetened beverages led to increased weight stigma attitudes and higher disgust towards people living with obesity, and that people living with obesity felt stigmatised when exposed to these warning labels, as well as lowered mood and self-esteem.[43]

Within the 2021 Department of Health and Social Care spending review, a need to invest in the wider

determinants of heath was highlighted, identifying that the last decade of austerity has eroded many of the services that helped to shape public health in the UK. However, there remains a lack of clarity as to how this will truly be addressed. For instance, without environmental change that can facilitate healthier choices for all, education alone is unlikely to be successful, and may exacerbate blame and stigma.[44]

Prevalence of weight bias, discrimination, and stigma

Research reports weight stigma has increased, with previous research also highlighting that weight stigma has increasing overtime. People living with obesity experience stigma from educators, employers, healthcare professionals (HCPs), the media and even from friends and family.[45–47] Public health messages often blames people living with obesity through the moralising of health behaviours which in turn promotes the internalisation of weight stigma.[48]

In a 2016 meta-analysis, prevalence of perceived weight discrimination was 19.2% amongst people with class I obesity (BMI = 30–34.99 kg/m^2) and 41.8% amongst individuals with class II obesity (BMI ≥ 35 kg/m^2) with a higher prevalence reported by women.[49] A survey by the UK All-Party Parliamentary Group on Obesity,[50] showed that 88% of people living with obesity reported being stigmatised due to their weight. Furthermore, 42% felt uncomfortable talking to their GP about their weight, and only 26% reported being treated with dignity and respect by HCPs when seeking advice or treatment relating to their weight. These findings may in part explain why people living with obesity avoid accessing healthcare.[51]

Estimates suggest that approximately 40–50% of US adults living with overweight or obesity have internalised weight bias (directing negative weight stereotypes towards oneself), and 20% endorse high levels of internalisation.[52] Internalised weight bias has a strong, negative impact on mental health such as depression, anxiety and lowered self-esteem. Internalised weight bias may also negatively impact physical health (e.g. worse cardiometabolic health),[53] may lead to unhealthy eating behaviours (e.g. binge eating) and is associated with both poorer weight loss and weight loss maintenance.[54,55]

Stigmatising media portrayal contributes to the formation and maintenance of weight stigma attitudes, and in some instances, encourage discriminatory behaviour.[56] On almost a daily basis, media portrays people living with obesity in a stigmatising manner, reinforcing stereotypes, and dehumanising people living with obesity.[57,58] For instance, content for young children and adolescents often portrays people and characters living with obesity as slow, gluttonous and lazy with less friendship qualities and physically less attractive. Media portrayals often do not reflect scientific understanding regarding the complex, multi-factorial nature of obesity, but rather focuses on individual responsibility and blame.[59,60]

It should be noted, that there are differences in perceptions of body size and thus, weight stigma based on cultural group, where for instance, some research has shown that Black Americans stigmatised women living with overweight or obesity less compared to White Americans and Indian Americans.[61] Likewise, in some cultures, women living with overweight or obesity were viewed as attractive and confident[62] compared to thinner body sizes.[63] Therefore, the negative impact of experiencing weight stigma may vary by culture and thus, health-related policies should consider these potential differences.

Weight stigma in healthcare settings and its adverse impact on health

Counterintuitively, given healthcare settings are designed to be health supportive and promoting, empirical studies over a 40-year period show that people living with obesity experience weight stigma and discrimination from HCPs.[64] It has been reported that 69% of doctors, 46% of nurses and 37% of dietitians report biased attitudes against people living with obesity.[65] These negative attitudes are even reported by HCPs specialising in obesity, with HCPs describing people living with obesity as lazy, stupid, non-compliant, lacking willpower and undisciplined.[45,66]

Implicit weight bias amongst HCPs can impact the level of support, care and empathy people living with obesity receive. Evidence indicates that physicians spend less time in appointments, provide less education about health, have less respect for people with a higher body weight, and report that caring of people living with obesity is a greater waste of time compared to thinner people.[67] People living with obesity who report weight bias in the healthcare setting have less trust in their providers,[68] are less likely to access healthcare screening[69–71] and services,[72] have poorer outcomes,[73] and are more likely to avoid future healthcare.[74] Indeed, research has reported that due to weight stigma experiences, women living with overweight or obesity delay routine cancer screening,[75] which is compounded by 83% of physicians being reluctant to perform an examination on women living with obesity.[71]

As Ewing[76] reported when talking about weight stigma, “when translated to the consultation room, it becomes a health threat in itself, risking inequality and hindering the intervention and adherence efforts of both physicians and patients”.

Empirical evidence that demonstrates HCPs hold stigmatising attitudes, which may lead to discriminatory practices, highlights the urgent need for weight bias

interventions amongst HCPs, particularly given that this environment should represent a safe space for people to access non-judgemental, equitable care.[26] This reflects the core principle of the NHS which is to provide a comprehensive service that is available to all, however, this is not always seen within the healthcare system. Therefore, acknowledgement of the detrimental effects of weight stigma in healthcare access and care provision is key to understanding the impact of weight stigma on public health. In addition, there is a need for research that understands the role and impact of stigma in public health settings outside of healthcare, and whether ambiguity identified amongst professionals is due to and can be improved through improved education and professional guidelines. Several training programmes and hubs have recently emerged aimed at address weight stigma amongst HCPs,[77,78] which will need to be evaluated to understand their impact.

Changing the narrative and recognising obesity as a chronic progressive, relapsing disease

Multiple organisations have now recognised obesity as a disease including, the American Medical Association, Canadian Medical Associations, and most recently the Chamber of Deputies of the Italian Parliament. In 2019, the Royal College of Physicians (RCP) called for obesity to be recognised as a chronic progressive, relapsing disease by the UK health sector and Government, stating that disease recognition would 'allow the creation of formal healthcare policies to improve care both in doctors' surgeries and hospital'. Despite suggestions that disease recognition may lead to reduced weight stigma, to date there is limited evidence to support this stance[79–82] with some suggesting that instead it may lead to increased stigma. Without definitive data either way making public health policy decisions is challenging at present, with further research needed in this area, particularly from those countries already recognising obesity as a disease to understand its potential impact.

Definition of obesity

Current use of body mass index (BMI) as a diagnostic tool to define obesity fails to reflect the complexity of obesity and does not take into account body composition or an individual's health, which are key to the associated health risk linked with obesity. There is an urgent need for more reliable tools to be used, with the inclusion of body composition and health-related risk, rather than solely using BMI. In doing so, this will help by shifting from a weight centric focus and into one where health is at the centre of care. Many public health policies, as well as healthcare and weight management service use BMI as indicators or criteria, and thus, the issues raised relating to BMI, such that it may include or exclude people incorrectly means that there is a need to identify more reliable tools and consequently, review policies related to body weight. Calls to stop using BMI as a measure of health have been seen. For instance, in 2021, the House of Commons Women and Equalities Committee called for the UK Government to cease using BMI to determine if a person's weight is healthy.[83]

Public health policies to help reduce weight stigma

Importance of language

The importance of using non-stigmatising language is a long-standing topic given the continued evidence that inappropriate and derogatory language can have a detrimental impact. The language used within health policies can help to shape the national discourse related to obesity, therefore the use of appropriate terms is essential. The use of stigmatising terms, combative language and emphasis on 'personal responsibility' is widely evident in public health policies.[26,84]

Terms such as obese, extra-large and morbidly obese should be avoided as these are perceived negatively by people living with obesity.[85] Instead more weight-neutral terms such as 'weight' or 'higher weight' should be used.[85,86] A first step in reducing weight stigma is to get the conversation right both in general and in clinical settings where language key; an international consensus statement highlighted the use of person first language as a potential step in improving terminology.[23]

It should be noted that there is no one terminology that is accepted by all including amongst people living with overweight or obesity. For instance, preference for person first language is reported by people livng with obesity[87] whilst other research suggests the word obesity is a disliked,[85] with activists preferring the term fat.[88] As such, it is recommended that outside of policy, preferences about terminology should be acknowledged and respected.

Legislation

Legislation is imperative to give marginalised groups in society an equal standing.[34] Globally, few places have taken legislative action to address weight discrimination; no legal protection currently exists in either UK or EU law.[34,89] Examples of where there is legistlation include US state of Michigan[90] and the City of Reykjavik in Iceland.[91] The City of Reykjavík legislative change is based on the grounds that prejudice and discrimination towards people based on their body build is a social injustice. This legislation states that people may not be discriminated against based on their build, appearance, or body type, and includes for instance, teasing and

hostility. This change holds implications for many sectors of society including employers or education providers, ultimately, providing people living with obesity with greater protection.

In the UK, obesity is not a protected characteristic as defined by the 2010 Equality Act,[92] however, employees that have a physical or mental long-term condition, resulting in substantial and long-term impairment on their normal daily activity, can be defined as having a disability under the Act. Obesity in itself is not a disability, however, in December 2014, the European Court of Justice ruled obesity could be constituted a disability in certain circumstances.[93] This could mean on an individual basis, that employers should make reasonable adjustments such as providing appropriate furniture, access and protection for people living with obesity from verbal harassment. The types of discrimination as highlighted in the Equality Act,[92] which include bullying, victimisation and harassment, are often the types of discrimination experienced by people living with obesity.[94]

To engender political change and prohibit weight-based discrimination public support is essential. Several studies have examined public support for policies and legislation to prohibit weight discrimination most from the US,[95–97] with limited data from other countries.[90,98] Public opinion vary between studies and country regarding support for legislative action. In the largest study to date exploring support for weight discrimination law across four different countries (US, Canada, Iceland, and Australia), most people agreed there should be weight discrimination laws.[90] However, respondents were least supportive of laws considering obesity as a disability and extending the protection to people living with obesity.[59,97,99] Whilst this could be deemed a positive step and from a Human Rights perspective leveraging the Act may offer greater protection against weight-based discrimiantion, this could also be seen as another label that a people living with obesity have to deal with, one they do not identify with or wish to have, and that may increase stigma. As such, there is a need to gather insights from and to work with people living with obesity to understand the potential benefits and consequences, as well as the required culture and policy changes.

Media

Media and other organisations communicating and disseminating information about obesity must avoid stigmatising and discriminatory framing of obesity. Policy documents and guidelines to help address these issues have been created to reduce address stigma at the source.[50,100,101] These guidelines recommend the use of person-first terminology, avoiding combative language e.g. ‘the war on obesity’, recognising the complexity of obesity and using non-stigmatising imaginary when reporting on obesity. There are severeal non-stigmatising image banks that are freely available for media to use.[1] Despite this, there is reluctance for the media to change, as continued use of stigmatising language, images and portrayal appears to drive engagement with content.

There is an urgent need for national and international authorities to intervene and support the use of non-stigmatising portrayal, with this key in changing the stigmatising narrative about obesity. A closer alignment between media and scientific evidence, given the media’s potential to reach vast numbers of the population, may go some way to improving public awareness and understanding of obesity and in doing so, contribute to reducing weight stigma where simplistic, unevidenced attitudes that lead to blame are at the heart of this social justice issue.

Given the widespread stigmatising media portrayal of obesity, there is a need for action from professional journalist societies. In some instances, journalist societies such as the National Union of Journalists (UK), the European Federation of Journalists and the Society for Professional Journalists (USA) have codes of ethics that members should follow, and whilst weight stigma and inaccuracies of media portrayal of obesity would constitute breaches of the ethics guides, there is a lack of engagement from these authorities.

Recommendations for policy leaders in the short medium- long-term (20 years)

Eradicating weight stigma and discrimination is going to be challenging and is unlikely to be eliminated completely, however, reducing it is an achievable goal. Here we summarise key recommendations which policy leaders should consider in both the short (0–5 years) and medium (5–10 years) term to help achieve this vision. What is essential is that the voice of people living with obesity is heard in all aspects of their care, including service development, programme feedback and public health policy. Without this, we will continue to miss the mark and true improvements in care will not be achieved.

Reframing of health policies

It is critical that Governments change the framing of obesity strategies and policies with greater focus on addressing the wider determinants of health, which have been overlooked in obesity campaigns. As highlighted by Flint, the narrative commonly used for obesity including in policies reflects pessimism, fear and unpleasantness; emotions that are more likely to

[1] World Obesity Federation; European Association for the Study of Obesity; UCON Rudd Center; IFB Adiposity Obesity Canada.

***Panel 1*: Canada as an example of using multiple strategies to reduce weight stigma**

Canada have incorporating multiple strategies to reduce weight stigma on a national level. In 2008, the Canadian Obesity Network Réseau canadien en obésité (CON-RCO) identified weight discrimination as a key barrier to obesity strategies in Canada[102] and formed the EveryBODY Matters collaborative to help reduce weight discrimination.

Whilst Canada has no specific weight stigma reduction policies, they have effectively incorporated weight bias into Canada's existing Gender-Based Analysis Plus policy platform and developed tools to help policymakers use a 'weight bias lens' when developing future obesity strategies.[103] Furthermore, Obesity Canada have worked with the Public Health Agency of Canada to raise awareness about weight stigma. This has involved consultations to help inform the agency's reports on the health of Canadians on how to address stigma and the Chief Public Health officer has recommended the use of inclusive, person-first language; now adopted by the Public Health Agency. Canada has explored how to use the Human Right Act as a tool to prevent weight-based discrimination. With recommendation from the Canadian Human Right Commission to use the existing disability laws to protect people living with obesity. Despite this, like other countries, obesity remains off the list of protected characteristics.

Finally, the publication of the Canadian Adult Obesity Clinical Practice Guidelines[104] where the reduction of weight bias in obesity management, practice and policy are the focus of the first chapter, is essential messaging that eradicating weight stigma is key to successful obesity management and care.

***Panel 2*: Short term recommendations (0−5 years)**

Recommendations
Education about the complexity of obesity, ensuring an understanding on the biological drivers of weight regulation.
Change the narrative regarding body weight regulation.
People first language and non-stigmatising communication at all levels in particular UK Government.
Implementation of NICE Obesity Guidelines and champion the inclusion of guidance about reducing weight stigma in the future.
Healthcare providers should provide weight inclusive environments.
Commissioned research into effective, long-term strategies to reduce weight stigma.
For public health authorities and messaging to not promote anti-obesity campaigns.
Healthcare professionals that work with people living with obesity should have education and training on weight bias and discrimination and have certification regarding stigma-free skills and practices.

***Panel 3*: Medium term recommendations (5−10 years)**

Recommendations
Media should produce accurate, non-discriminatory representations of people living with overweight.
Legislation and policies to prohibit weight discrimination should be prioritised with the aim to make a protected characteristic as part of the Equality Act 2010.
Appropriate funding should be provided to offer universal access to effective, lifelong weight management treatment for those living with overweight and obesity.
Weight bias and discrimination should be not be tolerated in healthcare, education, the workplace or in the media and the introduction of anti-fat bullying policies.

lead to frustration, despair and anxiety.[26] Comparatively, the narrative used for other health conditions such as cancer reflect optimism and hope which are more effective in supporting people and encouraging healthy behaviours. Policymakers and HCPs must reflect on current approaches to the framing of obesity and, instead use more positive and supportive language as they do with other health conditions. The framing of obesity and narrative used has become ingrained, and in some instances may reflect unconscious bias that many people including policymakers hold about people living with obesity.

Furthermore, there is now an argument for a paradigm shift away from a weight-centric to a weight-inclusive focus to help reduce weight stigma. Where the development of public health policies should focus on health-related behaviour rather than weight loss. Weight is not a behaviour and thus, should not be the focus of behaviour change programmes, in essence decoupling weight and health.[102] This is in line with previous research from Puhl et al. which highlighted that the most positive and motivating public health messages were those that made no mention of the word 'obesity', with a focus on making healthy behavioural changes without reference to body weight.[42]

Conclusions

This review highlights the continued need for societal change to end weight stigma and discrimination that is pervasive and has wide-ranging impacts on people living with obesity. Continuing to permit weight stigma

across society as highlighted above, means that the societal values of equality, diversity and inclusion are threatened.[22] Thus, it is imperative that weight stigma is considered unacceptable, as it undermines our human and social rights.

Despite scientific evidence to the contrary, the prevailing view in society is that obesity is a choice, which can be reversed by voluntary decisions to eat less and exercise more. These messages are evident in public health policies and campaigns, media portrayal and education. These messages lead to stigmatising attitudes and may influence discriminatory behaviours, undermine access to evidence-based treatments, and compromise advances in research

Governments and policymakers need to recognise the complexities of obesity and in doing so, adopt comprehensive strategies that address the drivers of obesity including the environmental and commercial determinants of health, which at present have been lacking from strategic policy. For the narrative to change around obesity in public health policies it will require a critical approach to identifying and challenging entrenched assumptions and beliefs about obesity. Academic institutions, professional organisations, media, public health authorities, and Government should encourage education about weight stigma and facilitate a new public narrative about obesity, coherent with modern scientific knowledge.

Finally, it is imperative that the voice of people living with obesity is heard, akin to what is expected for any other health condition. The experiences and involvement of people living with obesity in care including design and delivery, research, education, and policy development is warranted and is likely to lead to more effective, person-centred outcomes (panel 2).

Search strategy and selection criteria

We searched PubMed, PsycInfo and Medline (OVID) databases for original research articles using combinations of terms ‘obesity’, ‘weight stigma, ‘weight discrimination’, ‘weight bias’, ‘policy’, ‘health policy’, ‘education’, ‘media’ ‘legislation’ until April 30th, 2021.

Contributors

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