COMMENTARY

The ineffectiveness and unintended consequences of the public health war on obesity

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ABSTRACT

The public health war on obesity has had little impact on obesity prevalence and has resulted in unintended consequences. Its ineffectiveness has been attributed to: 1) heavy focus on individual-based approaches and lack of scaled-up socio-environmental policies and programs, 2) modest effects of interventions in reducing and preventing obesity at the population level, and 3) inappropriate focus on weight rather than health. An unintended consequence of these policies and programs is excessive weight preoccupation among the population, which can lead to stigma, body dissatisfaction, dieting, disordered eating, and even death from effects of extreme dieting, anorexia, and obesity surgery complications, or from suicide that results from weight-based bullying. Future public health approaches should: a) avoid simplistic obesity messages that focus solely on individuals' responsibility for weight and health, b) focus on health outcomes rather than weight control, and c) address the complexity of obesity and target both individual-level and system-level determinants of health.

KEY WORDS: Obesity; public health; weight bias; stigma

La traduction du résumé se trouve à la fin de l'article.

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The public health war on obesity, defined as a broad, health-based set of policies and programs designed to control the growing threat of the obesity epidemic and related chronic diseases,[1] has had little impact on obesity prevalence. Indeed, some of these policies and programs could result in unintended consequences.

The premise behind the public health war on obesity is that if we do not address the current global obesity epidemic, this condition will devastate population health in the future through chronic diseases related to obesity, such as heart disease, cancer and diabetes. This ticking "health time bomb" is relevant to wealthy industrialized countries and low- and middle-income countries alike.[2] Global public health responses to this anticipated threat to population health have been heavily focused on childhood obesity prevention with efforts aimed at changing individuals' behaviours and the practices of communities or institutions (i.e., schools, workplaces) around healthy eating and physical activity.[3] Despite these public health responses, obesity rates have continued to increase.[4]

Ineffectiveness of the public health war on obesity

The ineffectiveness of the public health response has been attributed to: 1) heavy focus on individual-based approaches and lack of scaled-up socio-environmental policies and programs, 2) modest effects of interventions in reducing and preventing obesity at the population level, and 3) inappropriate focus on weight rather than health.

Failure to Address Complexity of Obesity

Critics blame the failure of public health obesity policies and programs on the latter being framed within an individual behaviour change paradigm or health education model that does not take into account the complexity of obesity.[5,6] An in-depth discussion of obesity drivers is beyond the scope of this paper, however the most recent Foresight obesity model depicts over 100 drivers, ranging from genetics to food formulation and individual psychology, and includes over 300 interconnections acting in complex feedback loops.[7] The vast majority of government campaigns designed to prevent obesity fail to address these complex drivers.[8]

Insufficient Effects of Policies and Programs

A systematic review on the effects of weight gain prevention programs concluded that most (79%) did not produce statistically reliable weight gain prevention effects.[9] A more recent study that looked at 60 meta-analyses and 23 systematic reviews of interventions to prevent and treat obesity found that the majority of reviews reported only modest effect sizes

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in outcomes such as dietary habits, physical activity and anthropometric measures (e.g., weight).[10] Public health advocates defend poor obesity prevention results and argue that prevention efforts have been sporadic and lack consistent evaluation frameworks. They propose that a systematic mix of education, regulatory, and socio-environmental approaches are needed in order to effectively prevent obesity at the population level.[11]

Recently, researchers have suggested that obesity prevention efforts need to change target groups.[12] A developmental perspective on obesity recognizes that genetic and developmental factors interact with environmental factors to create substantial variation between individuals regarding risk of obesity. Specifically, factors such as maternal stress and maternal–infant interactions have been linked to changes in the offspring's epigenetic state.[13] Although pregnancy is seen as a good stage at which to intervene in an effort to prevent childhood obesity, behaviour-based interventions implemented to date have not provided good quality results that can inform practice and decision-making.[14]

In addition to individual-based obesity prevention programs, the public health war on obesity has also developed policy approaches. A recent rapid review identified four widespread obesity prevention policy categories: 1) improved access to healthy foods, 2) increased taxing of unhealthy foods, 3) targeted healthy food subsidies and reform of food assistance programs, and 4) information-based policies, such as calorie labeling on menus.[15] This review concluded that "current obesity policy rests on a very narrow evidence base" (ref.15, p. 186) and that there is a lack of suitable evaluations to assess the impact of these policies.

Despite the lack of scientific evidence for obesity prevention policies, policy-makers have a sense of urgency to adopt policies in order to preempt the impending chronic disease epidemic. Thus, policy-makers must rely on best practices and accept "a slightly lower standard of promising practices" (ref.15, p. 168). Political scientists, however, warn that policy-makers should consider policy options carefully since some could be classified as soft paternalism.[15] Based on the global domino effect of obesity prevention policies, it is clear that public health stakeholders increasingly support policies that nudge as opposed to push people to change their behaviours.[16] Social scientists also argue that such policies could increase health disparities. Menu-labeling policies and tax incentives to promote physical activity, for example, can widen health disparities because they are more likely to benefit individuals from higher socio-economic status groups.[15,17]

Inadequacies of Focus on Weight Rather Than Health

As the debates about targets and approaches for obesity prevention continue, critics argue that weight-focussed public health policies can lead to unintended consequences, such as excessive weight preoccupation among the population, which can lead to body dissatisfaction, dieting, disordered eating, discrimination and even death from effects of extreme dieting, anorexia, and obesity surgery complications, or from suicide that results from weight-based bullying.[1,18,19] The main assumptions of the weight-focussed health paradigm are: 1) weight is entirely within the control of the individual, 2) weight gain is caused by a simple imbalance between an individual's energy intake and output, 3) the health of an individual can be assessed and predicted based on body mass index (BMI, a number estimated by dividing an individual's weight in kilograms by his or her height in metres squared; a BMI of 25 indicates overweight and a BMI of 30 indicates obese[20]), 4) excess weight causes disease and premature death, 5) successful and sustained weight loss can be achieved simply by changing eating and physical activity patterns, and 6) losing weight and achieving a healthy weight will result in better health.[1] These assumptions contribute to myths and misconceptions associating obesity with "ugliness, sexlessness, undesirability and moral failings such as lack of self-control, social irresponsibility, ineptitude and laziness across cultures and borders" and increase weight bias in our society (ref.21, p. 269).

Weight bias consists of negative attitudes toward and beliefs about others because of their weight.[22] These negative attitudes are manifested by stereotypes and/or prejudice toward people with overweight and obesity. Weight bias can lead to obesity stigma, which is the social sign or label given to an individual who is the victim of prejudice.[23] The consequences of weight-based stigmatization have been studied for decades. Obesity stigma can affect a person's mental health, their interpersonal relationships, educational achievement and employment opportunities and ultimately lead to inequities.[24]

Obesity prevention strategies that emphasize the duty and responsibility of individuals to make healthy choices can end up blaming or punishing those who make unhealthy or 'contested' choices. The public has begun to resist information-based initiatives and recent studies indicate that individuals with obesity perceive obesity public health messages as overly simplistic, disempowering and stigmatizing.[25] Some obesity reduction strategies have even used stigma as a way to motivate people to change their behaviours. In the US, public health campaigns that promote negative attitudes and stereotypes toward people with obesity, stigmatize youth with obesity, or blame parents of children with overweight have been strongly criticized by the media and the research community.[26] Such campaigns not only are ineffective in motivating behaviour change but also end up further labeling and stigmatizing individuals.[27]

CONCLUSION

Simplistic obesity public health policies and programs that are only evaluated against changes in body weight or BMI are ineffective and can have unintended consequences. Public health professionals need to be more critical of current obesity narratives (which can cast shame and blame on individuals with obesity) and avoid simplistic obesity messages that focus solely on individuals' responsibility for weight and health. Public health should address the complex drivers of obesity by focusing on both individual-level (behavioural, psychological, and early life factors) and system-level (socio-environmental) determinants of health.

Public health practitioners should examine the values that underpin public health practices and be accountable to both evidence and ethics. Guidelines and models to support improved health rather than promoting weight loss have started to

emerge.[28] An example that is gaining increasing recognition is the Health At Every Size (HAES) approach, which promotes self-acceptance and healthy day-to-day practices, regardless of whether a person's weight changes.[29] The Edmonton Obesity Staging System (EOSS) is also increasingly being used as a way to assess health based on risk behaviours rather than weight.[30]

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RÉSUMÉ

La guerre de la santé publique contre l'obésité a peu d'impact sur la prévalence de l'obésité, et elle a des conséquences inattendues. Son inefficacité est imputée : 1) à la lourde insistance sur les démarches individuelles et au manque de politiques et de programmes socio-environnementaux à grande échelle, 2) aux effets modestes des interventions sur la réduction et la prévention de l'obésité dans la population et 3) à l'insistance inappropriée sur le poids plutôt que sur la santé. Une conséquence inattendue de ces politiques et programmes est la préoccupation excessive pour le poids dans la population, qui peut mener à la stigmatisation, à l'insatisfaction corporelle, aux régimes amaigrissants, aux troubles alimentaires et même à la mort suite à des régimes extrêmes, à l'anorexie et aux complications des chirurgies de l'obésité, ou au suicide en raison de l'intimidation fondée sur le poids. Les futures démarches de santé publique devraient : a) éviter les messages simplistes sur l'obésité axés uniquement sur la responsabilité individuelle en matière de poids et de santé, b) mettre l'accent sur les effets sur la santé plutôt que sur le contrôle du poids et c) aborder l'obésité dans toute sa complexité et cibler à la fois les déterminants individuels et systémiques de la santé.

MOTS CLÉS : obésité; santé publique; préjugés liés au poids; stigmatisation