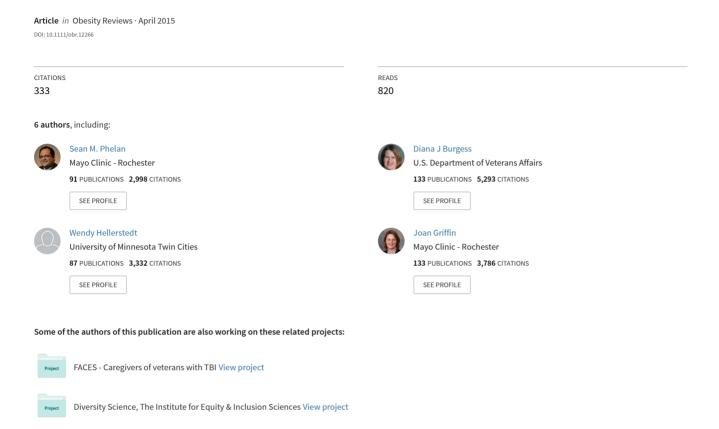
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Summary

The objective of this study was to critically review the empirical evidence from all relevant disciplines regarding obesity stigma in order to (i) determine the implications of obesity stigma for healthcare providers and their patients with obesity and (ii) identify strategies to improve care for patients with obesity. We conducted a search of Medline and PsychInfo for all peer-reviewed papers presenting original empirical data relevant to stigma, bias, discrimination, prejudice and medical care. We then performed a narrative review of the existing empirical evidence regarding the impact of obesity stigma and weight bias for healthcare quality and outcomes. Many healthcare providers hold strong negative attitudes and stereotypes about people with obesity. There is considerable evidence that such attitudes influence person-perceptions, judgment, interpersonal behaviour and decision-making. These attitudes may impact the care they provide. Experiences of or expectations for poor treatment may cause stress and avoidance of care, mistrust of doctors and poor adherence among patients with obesity. Stigma can reduce the quality of care for patients with obesity despite the best intentions of healthcare providers to provide high-quality care. There are several potential intervention strategies that may reduce the impact of obesity stigma on quality of care.

Keywords: Delivery of health care, obesity, stereotyping, social stigma.

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Introduction

The goal of primary care is to improve patients' health, longevity and quality of life through the provision of patient-centred care. To do so, healthcare providers must identify modifiable behaviours that increase disease risk, and help patients change them. Recent US Preventive Services Task Force guidelines recommend screening adults for obesity and offering behavioural interventions to those with a body mass index (BMI) over 30 kg m⁻² (1). However, obesity is a stigmatized condition; thus, one side effect of increased focus on body weight in health care may be the alienation and humiliation of these patients. The term 'stigma' describes physical characteristics or character

traits that mark the bearer as having lower social value (2). A stigmatized trait can lead to experiences of discrimination, and the feeling of being stigmatized can put one at risk for low self-esteem (3), depression (4–6) and lower quality of life (7–10). However, the empirical evidence on stigma overall and obesity stigma in particular is scattered across diverse disciplines and lines of research, making it difficult to get a clear picture of the implication of obesity stigma for healthcare providers and their patients.

In order to address this gap, we critically reviewed literature related to the impact of obesity stigma on interpersonal encounters and decision-making. We discuss potential implications, including several mechanisms whereby stigma may affect patient-centred communication and care, defined

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by the Institute of Medicine (11) as 'care that establishes a partnership among practitioners, patients, and their families (when appropriate) to ensure that decisions respect patients' wants, needs, and preferences and that patients have the education and support they need to make decisions and participate in their own care' (p. 7). We also suggest several strategies that may help healthcare providers and clinics reduce the impact of stigma on patients with obesity.

Obesity is a commonly and strongly stigmatized characteristic (12,13). There is substantial empirical evidence that people with obesity elicit negative feelings such as disgust, anger, blame and dislike in others (14–16). Despite the high prevalence of obesity (approximately one-third of the US adult population (17)), individuals with obesity are frequently the targets of prejudice, derogatory comments and other poor treatment in a variety of settings, including health care (12,18). Furthermore, there is a growing body of evidence that physicians and other healthcare professionals hold strong negative opinions about people with obesity (19-27).

Methods

We conducted a narrative review of this literature to highlight the ways that the obesity stigma may interrupt the healthcare process and impede many healthcare providers' goal of providing equitable high-quality care. We reviewed all original studies in the fall of 2014 on topics related to obesity stigma in medical care and/or the impact of stigma on interpersonal encounters and decision-making in PubMed and PsychInfo, with the majority of studies found in health communication, social psychology and health disparities research. We then selected papers relevant to the potential impact of obesity stigma on healthcare provider behaviour, patient healthcare outcomes and healthcare encounters.

Impact on providers

Primary care providers and health promotion specialists, who typically demonstrate a commitment to providing care for underserved populations, are unlikely to flagrantly and intentionally discriminate against their patients. Nevertheless, there are several ways that their attitudes about obesity may cause their patients with obesity to feel disrespected, inadequate or unwelcome, thus negatively affecting the encounter quality and their willingness to seek needed care (see Fig. 1). Behaviours that emanate from negative attitudes about a stigmatized group are known as enacted stigma (28). Enacted stigma on the part of the provider affects the patient in both measurable and immeasurable ways. It can reduce the quality, and even the quantity, of patient-centred care, and can signal to the patient that he or she is being perceived in terms of his or her stigmatized identity, which, in turn, may affect patient perception of, and compliance with, provider recommendations.

The negative attitudes underlying enacted stigma can be explicit or implicit. Explicit attitudes are conscious and reflect a person's opinions or beliefs about a group. Implicit attitudes are automatic and often occur outside of awareness and in contrast to explicitly held beliefs (29). The response to some stigmatized groups, such as racial minorities among egalitarian Caucasians, often consists of negative implicit attitudes, but neutral or positive explicit ones (30). In contrast, explicit negative attitudes about people with obesity are more socially acceptable than explicit racism: e.g. it is acceptable in many Western cultures that people with obesity are the source of derogatory humour and may thus be openly - and unquestionably - portrayed as lazy, gluttonous and undisciplined. Primary care providers, medical trainees, nurses and other healthcare professionals hold explicit as well as implicit negative opinions

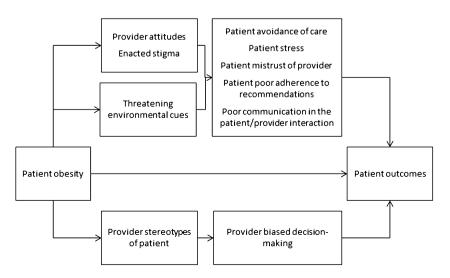


Figure 1 A conceptual model of hypothesized pathways whereby the associations between obesity and health outcomes are partially mediated by healthcare providers' attitudes and behaviours about obese patients, and patients' response to feeling stigmatized

about people with obesity (21,31–33). This has important implications for communication in the clinical interview, because explicit attitudes influence verbal behaviours as well as decisions that are within conscious control, whereas implicit negative attitudes predict non-verbal communication and decisions under cognitive burden (29,34-36). There is evidence that providers' communication is less patient-centred with members of stigmatized racial groups (37-43), and other stigmatized groups including patients with obesity (44), and that provider attitudes contribute to this disparity (45-47). Implicit attitudes have also been found to be associated with lower patient ratings of care (46). The combination of implicit and explicit negative obesity attitudes may elevate the potential for impaired patient-centred communication, which is associated with a 19% higher risk of patient non-adherence, as well as mistrust, and worse patient weight loss, recovery and mental health outcomes (48–53).

There are several mechanisms by which provider attitudes may affect the quality of, or potential for, patientcentred care. First, primary care providers engage in less patient-centred communication with patients they believe are not likely to be adherent (54). A common explicitly endorsed provider stereotype about patients with obesity is that they are less likely to be adherent to treatment or self-care recommendations (23,24,55,56), are lazy, undisciplined and weak-willed (12,55,57-59). Second, primary care providers have reported less respect for patients with obesity compared with those without (59,60), and low respect has been shown to predict less positive affective communication and information giving (61). Third, primary healthcare providers may allocate time differently, spending less time educating patients with obesity about their health (62). For example, in one study of primary care providers randomly assigned to evaluate the records of patients who were either obese or normal weight, providers who evaluated patients who were obese were more likely to rate the encounter as a waste of time and indicated that they would spend 28% less time with the patient compared with those who evaluated normal-weight patients (59). Finally, physicians may over-attribute symptoms and problems to obesity, and fail to refer the patient for diagnostic testing or to consider treatment options beyond advising the patient to lose weight. In one study involving medical students, virtual patients with shortness of breath were more likely to receive lifestyle change recommendations if they were obese (54% vs. 13%), and more likely to receive medication to manage symptoms if they were normal weight (23% vs. 5%) (23).

Impact on patients

Experiences of discrimination and awareness of stigmatized social status can cause patients to experience stress and have other acute reactions that may reduce the quality of the encounter, regardless of their provider's attitudes and behaviour. Three conceptually overlapping processes identity threat, stereotype threat and felt stigma – describe the stigmatized patient's reaction to being stigmatized. Identity threat occurs when patients experience situations that make them feel devalued because of a social identity. Social identities are the categories, roles, and social groups that define each person and give a sense of self (63,64). Each social identity, be it a professional identity, a gender identity, or identity as a person who is obese, has emotional significance for the individual, is closely tied to selfesteem, and can empower or make one vulnerable. Obesity is stigmatized, and thus is more likely to make the individual aware of the possibility for rejection or derogation than make him/her feel confident and empowered. Stereotype threat occurs when an individual is aware that he or she may be viewed as a member of a stigmatized group, and becomes preoccupied with detecting stereotyping on the part of the provider and monitoring his or her own behaviour to ensure that it does not confirm group stereotypes (65). Felt stigma is a term used to describe the expectation of poor treatment based on past experiences of discrimination (28).

The effects of stigma are both immediate and long-term. The direct effects of provider attitudes on patient-centred care may reduce the quality of the patient encounter, harming patient outcomes and reducing patient satisfaction. Patients with obesity who experience identity/ stereotype threat or felt/enacted stigma may experience a high level of stress which can contribute to impaired cognitive function and ability to effectively communicate (66). Accumulated exposure to high levels of stress hormones (allostatic load) has several long-term physiological health effects, including heart disease, stroke, depression and anxiety disorder, diseases that disproportionately affect obese individuals and have been empirically linked to perceived discrimination (67–69). Indeed, stress pathways may present an alternate explanation for some proportion of the association between obesity and chronic disease (70).

Other effects include avoidance of clinical care if patients perceive that their body weight will be a source of embarrassment in that setting (71,72). For example, there is evidence that obese women are less likely to seek recommended screening for some cancers (72–76). The long-term result of avoidance and postponement of care is that people with obesity may present with more advanced, and thus more difficult to treat, conditions. Individuals who are stigmatized, or are vigilant for evidence of stigma, may withdraw from full participation in the encounter. Because of this, they may not recall advice or instructions given by the provider, reducing adherence to prescribed treatment or self-care. Experiencing stereotype threat may also cause patients to discount feedback provided by the source of the

threat (77), which in turn may affect adherence. Patients who report feeling judged by their primary care provider are less likely to seek or achieve successful weight loss (78,79). Patients who have tried to lose weight and failed may 'dis-identify', or reduce their efforts to lose weight, in order to disconnect their self-esteem from achievement in a domain with which they have not had success (65), and may feel shame for failing to lose weight or maintain weight loss (78). Along similar lines, individuals who experience more obesity stigma report less health utility, or place lower value on health (80).

Setting factors

Felt stigma and identity/stereotype threat can be triggered by experiences in the healthcare clinical setting that signal to the patient that his/her identity as a person who is obese is salient and possibly devalued. A typical primary care clinical encounter has many such signals, including weight measurement, dietary assessment, and queries about physical activity. Providers are also encouraged to provide unsolicited weight loss counsel as well as to assess patients' willingness to alter behaviours that are associated with obesity. There is evidence that many providers dislike treating obesity, feel underprepared to do so, and have little hope that their patients will make lifestyle changes (55,81-84), which may be detectable in their tone of voice or language. They may also signal overly simplified assumptions about the causes of obesity, by suggesting, for example, that their patients cut back on fast food or consider taking the stairs instead of elevators. These assumptions ignore the complexity of energy balance and propagate a common misunderstanding that weight loss is as simple as 'calories in < calories out' (85). Such counsel, despite its positive intentions to optimize patient health, may create unrealistic expectations about the effects of small lifestyle changes, which may lead to disappointment and recidivism. This counsel can also have unintended side effects if it signals to patients that they are seen solely in terms of their stigmatized identity. This could create a state of threat that may affect the patient's emotional state, ability to communicate effectively, and attitude towards medical advice (86).

Clinic equipment may also promote identity threat for patients with obesity (87,88). Waiting room chairs with armrests can be uncomfortable or too small. Equipment such as scales, blood pressure cuffs, examination gowns and pelvic examination instruments are often designed for use with smaller patients. When larger alternatives are not available, or are stored in a place that suggests infrequent use, it can signal to patients that their size is unusual and that they do not belong. These experiences, which are not delivered with malicious intent, can be humiliating.

Potential strategies to address obesity stigma in clinical care

Promising strategies to reduce stigma in the primary care setting include improving provider attitudes about patients with obesity and/or reducing the likelihood that negative attitudes influence provider behaviour; altering the clinic environment or procedures to create a setting where patients with obesity feel accepted and less threatened; and empowering patients to cope with stigmatizing situations and attain high-quality health care (86,89). Here we focus on strategies that clinics or healthcare organizations might implement to improve the experience of patients with obesity or overweight. Some of the studies discussed here are firmly rooted in research evidence, but some are untested strategies that will require research to test their effectiveness.

Our intent was to highlight the salience of obesity stigma in health care and the potential to re-frame and optimize provider-patient encounters. Our work recognizes the contributions of interdisciplinary scholars, in fat studies and elsewhere, who have raised awareness of how cultures conceptualize body size, and consequently, how body size itself can inform identity. Such scholars have thus set much of the theoretical foundation for our work, even though our suggestions are not consistent with their advocacy for a weight-inclusive approach to medical care, in which obesity is seen as independent of health and weight reduction is not a focus of medical care (90,91). While there is evidence supporting this viewpoint, we focus on interventions that are more consistent with the dominant medical and nursing paradigms of obesity as a risk factor.

Reducing weight stigma in clinical care is a shared responsibility of healthcare providers and other clinic staff, as well as the healthcare systems/organizations that have the power to implement intervention strategies broadly. Many of the strategies we discuss here can be implemented by providers or clinics, but any of these strategies could be implemented more efficiently, and have a wider influence, if uptake was required of providers and clinic staff by healthcare organizations.

Strategies that clinics can implement to improve provider attitudes about people with obesity include the following. (i) Increase provider empathy through perspective-taking exercises. Perspective-taking exercises have improved provider attitudes towards stigmatized groups (92), although findings are mixed about its effectiveness in reducing obesity stigma (93,94). (ii) Alter perceived norms regarding negative attitudes and stereotypes about people with obesity. In one study, researchers reduced explicit bias against obese people by providing individuals information and evidence that their peers did not hold negative attitudes (95). To minimize the perception that anti-fat bias is the norm, one untested strategy could include implementing a zero-tolerance policy for comments or humour that stereotypes or degrades anyone based on a physical identity or attribute. (iii) Encourage provider instruction and practice in emotion regulation techniques that foster positive affect. High cognitive load and time pressure, characteristic of clinical care settings, impair judgments and decision-making (96). Furthermore, frustration that providers may feel towards 'difficult' or 'complex' patients or patients who they perceive are harming their own health, may elicit strong negative emotions. Although no studies have directly tested their effect on weight bias, evidence from one study of prejudice reduction suggests that emotion regulation tools such as meditation or deep breathing may help providers overcome these negative emotions and improve compassion and other pro-social emotions (97,98). (iv) An untested strategy to build awareness of weight bias and a felt need to address it might include encouraging providers to examine their explicit beliefs and stereotypes about obese people, and complete an assessment of implicit attitudes (e.g. the online Implicit Association Test at http://www.implicit.harvard.edu). Provide information about the automatic nature of these attitudes and encourage providers to consciously strive to behave in ways consistent with helping and egalitarian values. And lastly, (v) educate providers on the genetic, environmental, biological, psychological and social contributors to weight gain and loss (99,100). Providers who understand this complex web of causality have more positive attitudes about patients with obesity (101). This information is likely less threatening for their patients than over-simplified messages like 'eat less, move more', or 'calories in, calories out' (102).

There are several strategies for providing a welcoming and less threatening healthcare environment to patients with obesity. (i) Reduce focus on body weight. Instead, focus on screening for the diseases and conditions for which obesity is a risk factor and encourage feasible behaviours that will improve health and well-being. This could be accomplished by weighing patients less frequently - for example, restricting weigh-ins to well-visit checkups and forgoing weigh-ins when visits are not associated with a weight-related reason. Increasing patients' knowledge of the health effects of obesity has shown little effect on weight loss (103,104). However, encouraging patients to not focus on weight or weight loss, but rather on the other benefits of physical activity and healthy eating, may reduce the threat of conversations about these behaviours, and thus increase the likelihood of behaviour change and maintenance (102,105). (ii) Adopt patient-centred communication strategies, such as motivational interviewing, which may be less threatening for patients and are associated with patient adherence and positive outcomes (48,51-53,106-108). (iii) Although its impact on felt stigma is not tested, one could ensure that the clinic environment is welcoming by providing chairs and medical equipment that are usable by patients of all sizes and by keeping specialized instruments for patients with obesity readily available to clinical staff. (iv) Convey a sense of identity safety by providing evidence that diversity is valued (109). Although untested, this could be accomplished by posting a mission statement that stresses the value of body size diversity or by using positive and non-stereotypical images of overweight and obese people in clinic advertisements, pamphlets or artwork. (v) Healthcare systems could ensure that the continuum of care includes adequate referral resources for behaviour change counselling, including providers or clinics specializing in weight loss strategies and remove barriers (e.g. requirement for a secondary diagnosis, long wait times for an appointment) to accessing these resources (78). Study is needed in this area to determine whether shifting the threat of discussing weight loss strategies from the primary care setting to a specialty care setting may improve utilization of primary health care. These providers may also be more skilled at using communication strategies that are not threatening.

Discussion

Healthcare providers strive to provide the highest quality health care for their patients. This effort may be hindered by interpersonal and environmental cues that convey that patients with obesity are not welcome or by behaviours that lower the quality of communication in the encounter. Attitudes towards obesity as a health risk factor can exacerbate and mask negative attitudes towards individuals with obesity. Healthcare providers often view obesity as an avoidable risk factor that impedes their ability to treat and prevent disease. As this is a largely unchallenged perspective on obesity, healthcare providers may be less self-aware of their propensity to, and feel less pressure (internally or from external sources) to, behave in a non-prejudicial way towards people with obesity.

A great deal more research is needed to understand the impact of stigma on care for people with obesity. Much of the extant research involves small or convenience samples and requires replication with more generalizable populations. There are several important gaps in the literature on weight bias and health care. While several studies have found high levels of explicit bias in healthcare providers, there is a need for more research on weight stigma using measures of implicit bias. More research is also needed to identify the impact of those attitudes on aspects of the medical encounter, including decision-making and communication, as well as the differential effects of those attitudes by gender, race, socioeconomic status, sexual orientation, and other characteristics. The development and testing of novel interventions is also needed to reduce bias or its impact on behaviour in medical trainees, practicing physicians, other healthcare providers, and other staff members of healthcare organizations.

It is important to note the tension between obesity stigma literature or literature advocating a weight-inclusive approach (91) and the body of literature that supports increased provider attention to body weight and weight loss as a strategy to encourage behaviour change. We believe that the strategies and perspectives reviewed here are not contrary to this evidence, but may inform the refinement of interventions in order to avoid unintended consequences brought on by stigma, and maximize the effectiveness of patient behaviour change intervention.

Conflict of interest statement

Drs. Burgess, Hellerstedt, Griffin, and van Ryn do not report any potential conflicts of interest. Dr. Phelan and Dr. Yeazel report grants from the National Institutes of Health during the conduct of the study.

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