

## REVIEW ARTICLE

# Using Metaphors of Contagion: How Framing Obesity as ‘Epidemic’ Shapes Cultural and Medical Understandings of Noncommunicability and ‘Fatness’

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## ABSTRACT

This paper explores the contentions regarding the use of the term ‘epidemic’ in obesity discourses. Obesity studies are increasingly demonstrating links that suggest that the condition is communicable, thus possibly warranting an ‘epidemic’ framework. On the other side—to which I position this paper—obesity remains understood as noncommunicable. Therefore, when the notion of ‘epidemic’ is employed, it is recognized as metaphorical. Drawing on the works of critical scholars, this paper argues that this metaphorical framing of obesity as ‘epidemic’ has more harmful consequences on prevailing cultural and medical understandings of fatness, such as an increase in biopower and Othering.

*Keywords:* medical anthropology, obesity, metaphors of contagion, epidemic, noncommunicability, biosociality, biopower, foodways

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## INTRODUCTION

According to many major medical organizations, such as the World Health Organization (WHO) (2021b) and Centers for Disease Control and Prevention (2021), obesity is classified as a noncommunicable disease characterized by an ‘abnormal’ or ‘excessive’ accumulation of fat that exhibits a risk to health. The global prevalence of obesity has grown exponentially in the past forty years. The most recent estimates suggest that approximately thirteen percent of the world’s population were obese in 2016 (WHO 2021b). Notably, obesity has crossed traditional geographic, cultural, economic, gender, and age barriers, now affecting a wider range of individuals, families, and communities all over the world (Aguirre 2009). As a result, the condition has come to be invariably referred to as ‘epidemic.’

Since its use by Hippocrates in fifth century B.C., the term ‘epidemic’ has largely been used in respect to infectious, or communicable, diseases (Martin and Martin-Grenel 2006). Beginning in the second half of the twentieth century, however, ‘epidemic’ has also been used in reference to non-infectious, or noncommunicable, diseases, such as cancer and obesity, as well as suicide and violence against women (Martin and Martin-Grenel 2006). These metaphoric uses of ‘epidemic’ have attracted several critiques from scholars who argue that framing such phenomena, notably obesity, using terms associated with contagion could have unintended detrimental effects. Whereas many biomedical professionals and institutions argue that their use of ‘epidemic’ of obesity is warranted given the condition’s rising prevalence and possible molecular etiologies (Moffat 2010). Drawing on these two perspectives and the contestation

of the divide between communicable and noncommunicable diseases, this paper will explore how discourses using the notion of ‘epidemic’ to frame obesity influence the larger medical and cultural definitions of the phenomenon. Ultimately, this paper argues against the use of ‘epidemic’ in obesity discourses, as the foreseeable risks, such as an increase in biopower, and a political and cultural Otherization, outweigh any of the etiological, medical, or scientific benefits.

### **USING THE CONCEPT OF BIOSOCIALITY IN THE DISCERNMENT OF ‘COMMUNICABILITY’ VERSUS ‘NONCOMMUNICABILITY’**

To understand the contention of the use of ‘epidemic’ when discussing noncommunicable diseases and social phenomena, it is important to understand the ways in which the divide between what constitutes noncommunicability versus communicability is contested. The WHO (2021a) defines noncommunicable diseases as being chronic conditions, which are nontransmissible. That is, noncommunicable diseases are long-term conditions of illness and are not caused by an infection, or other pathogenic vectors, which then cannot be spread person to person. This distinction, however, is not as clear and straightforward as it might first appear.

Anthropologists Jens Seeberg and Lottie Meinert suggest that the traditional distinction between communicable and noncommunicable diseases is “intrinsicly linked to different forms of biosociality and ideas about causation and lifestyle” (2015, 55). Biosociality, as proposed by Paul Rabinow (2010) in their analysis of biopolitics and emerging biotechnologies of genetics, refers to the ways in which diagnoses of, and genetic predispositions to, illness and disease come to shape individuals’ self-identity. In addition, biosociality also refers to the formation of

community and kinship bonds with others experiencing the same, or similar illness and disease (Rabinow 2010). Biosociality in communicable diseases, for instance, has been largely found in “global treatment regimes” that identify “potential and actual patients and their relatives” (Seeberg and Meinert 2015, 56). In other words, as bacteria, viruses, and vectors are discovered, those perceived to be at-risk of contracting and spreading the disease are identified and labelled as ‘patient’ or ‘potential patient.’ Biosociality in noncommunicable diseases, on the other hand, has mostly been grounded in the “healthy lifestyle regime” that identifies, and seeks to regulate, ‘risky’ behaviours such as smoking, drinking, poor diet, and physical inactivity (Seeberg and Meinert 2015, 56).

Common forms of biosociality appear in both communicable diseases (e.g., HIV) and noncommunicable diseases (e.g., obesity) as specific risk groups and ‘risky’ behaviour practices are identified. An example of the formation of biosociality within experiences of disease can be found in Rebecca Marsland’s (2012) ethnography of HIV in Tanzania, where clinics are spaces for people interact and form intimate relationships with one another. Like the findings of Marsland (2012), some studies have shown that biosociality in obesity can be understood through the formation of peer-led bariatric groups (e.g., Meleo-Erwin 2020). Furthermore, making use of Ervin Goffman’s (1963) notion of a ‘spoiled identity,’ several studies have also noted how a positive HIV diagnosis may result in an internalization of the associated stigma of the disease (e.g., Frye et al. 2009; Tsarenko and Polonsky 2011). Internalized stigma is also widely observed in people who receive formal and informal diagnoses of obesity (see Moffat 2010; Bombak 2014; Yates-Doerr 2018). In this regard, studying forms of biosociality can demonstrate how the difference between communicable and noncommunicable disease is illusive.

Like the forms of biosociality, ideas about causation and lifestyle continually overlap between the divide of communicable and noncommunicable diseases. Some animal research illustrates this overlap as infections with human adenovirus is being associated with the onset of obesity (Dhurandhar 2001; Singer 2015, 212). As medical anthropologist Merrill Singer summarizes, “approximately 30 percent of obese adults suffer adenovirus infection” (2012, 212). Others have also found an association with gut microbiota and obesity through studies of fecal microbiota transplants (Finlay 2020). Since medical professionals cannot attribute all cases of obesity to microbial pathogenesis, some scholars have argued that ‘risky’ behaviour, such as poor diet and physical inactivity should also be considered vectors for disease and qualify to be included in the global treatment regime (Ackland, Choi, and Puska 2003; Allen 2017).

Most notably, social scientists Nicholas Christakis and James Fowler (2007) conducted a longitudinal study of approximately 12,000 participants, theorizing that obesity, among other risky behaviours such as smoking, could be spread through social relationships. Christakis and Fowler (2007) proposed that an individual’s risk of becoming obese increased depending on their perceived relationships, the type of relationship, and the sex of each person. In their research, Christakis and Fowler found that an individual who perceived someone else to be their friend was fifty-seven percent more likely to become obese if the other person became obese, compared to a 171% increase if both individuals perceived one another to be their friend (2007, 376). Extrapolating these findings, other scholars suggest that ‘risky’ behaviours or vectors for disease, such as poor diet and physical inactivity, are passed on through family and community relationships, constituting a central characteristic of contagion (Ackland, Choi, and Puska 2003; Huang et al. 2016). Furthermore, the management of

communicable diseases has also utilized the healthy lifestyle regime, as stigmatizing ‘risky’ behaviours have long been identified with diseases such as HIV, including intravenous drug use and homosexual sex. These examples demonstrate that the traditional distinction between communicable disease and noncommunicable disease, on the basis of molecular infection versus lifestyle causation, is not clear-cut.

### **THE METAPHORICAL USE OF ‘EPIDEMIC’: THE ROLES OF BIOPOWER, BIOCITIZENSHIP, AND MEDICALIZATION**

Despite the possible etiological origins and ‘contagious’ characteristics of obesity, most biomedical professionals recognize that the framing of obesity as communicable and ‘epidemic’ is metaphorical (Moffat 2010). This metaphorical use is one in which critical scholars continue to forewarn about, as there are foreseeable negative effects of such a categorization. According to Tyler Tate (2020), metaphors permeate medical language. In fact, Tate maintains that “clinicians and patients seem incapable of speaking at all without recourse to metaphor” (2020, 22). This is the direct opposite to what Susan Sontag claimed was the most truthful way to think about disease; “one most purified of, most resistant to, metaphoric thinking” (1978, 3). Even though metaphors are indispensable figures of speech, since they can help us conceptualize, organize, and understand experiences, they can equally objectify, confuse, deceive, and offend (Tate 2020, 22–23). Specifically, the metaphorical use of ‘epidemic’ can encourage an understanding of the seriousness with which a condition or phenomenon should be addressed. At the same time, however, the metaphorical use of ‘epidemic’ often connotes that such a condition or phenomenon is contagious, or easily spread from person to person. Conveyed in the works of Tim Brown (2014), and

Seeberg and Meinert (2015), the notion of contagion holds anxieties of individual morality, social responsibility, and collective action, which can have an ‘Othering’ effect. Put differently, framing obesity as epidemic and contagious can exacerbate the stigma and discrimination individuals experiencing obesity face and internalize. Therefore, Brown calls for “care to be taken when choosing metaphors used to describe complex social phenomena” lest we perpetrate pejorative ideas (2014, 127).

To understand how framing obesity as ‘communicable’ and ‘epidemic’ influence medical and cultural perceptions of the condition, it is beneficial to consider both the possible positive and negative effects. If obesity is understood to be communicable and largely out of the control of the individual, rather than a lifestyle disease, then insurance companies might be more likely to insure treating obesity (Moffat 2010). In the United States, for instance, there are two primary insurance companies that are governmentally funded: Medicare and Medicaid (Mylona et al. 2020). Medicare, being federally funded, supplies health insurance to those over the age of sixty-five and to those under the age of sixty-five who have a disability (Mylona et al. 2020). While Medicaid, which is co-funded by the state and federal governments, provides coverage to individuals with low incomes (Mylona et al. 2020). As one American study showed, “the aggregate medical costs of obesity are estimated to be more than \$200 billion annually, and Medicare and Medicaid pay for nearly half of the direct medical costs of obesity” (Mylona et al. 2020, 1). Nevertheless, large numbers of citizens remain uninsured or underinsured by these programs (Martinez-Hume et al. 2017). For example, ethnic minorities and marginalized genders are often situated at the point of convergence between those who are most impacted by obesity, and those who experience structural inequity in healthcare (Aguirre 2009;

Greenhalgh and Carney 2014). Commenting on the impact of poverty, Patricia Aguirre argues that “obesity has now been displaced toward low-income population groups, which includes the majority of women and children below the poverty line” (2009, 106). With the new framing of obesity as ‘communicable’ and ‘epidemic,’ access to care and treatment might increase for these ‘at-risk’ populations. Arguably, however, structural inequity is likely to persist despite this new framing of obesity.

At the same time, this new framing of obesity as ‘communicable’ will warrant an increase in medicalization and government intervention in the form of biopower. Introduced by Michel Foucault (1978), biopower pertains to the regulation and ‘optimization’ of human populations and bodies by the nation-state. Among many other critical scholars, social scientists Jan Wright and Valerie Harwood have contended that “the naming of obesity as a disease, and the identification of specific risk factors provides the impetus for the close monitoring of those who might be at risk in the name of prevention, and the assumed need for treatment of those who fall within the medically defined categories of overweight or obese” (2009, 3). That is, categorizing obesity as ‘epidemic,’ and thus a threat to public health, prompts governmental authority to name, monitor, and control risk factors and groups in their attempt to avoid hazard. This becomes especially dangerous when we recognize that vulnerable populations are those in which obesity is most prevalent. As observed in their analysis of obesity among Latin Americans, Susan Greenhalgh and Megan Carney (2014) conclude that the call to take political action against obesity is, at the same time, a call to take political action against ethnic minorities, marginalized genders, and cultural differences. Furthermore, Greenhalgh and Carney make point of how prevailing gendered norms situate women and mothers as being centrally

responsible for health and appearance within the family including obesity (2014, 269). Therefore, as it has been suggested, an ‘epidemic’ framing of obesity may contribute to the harsh censure directed at ethnic minorities and marginalized genders, who are perceived as impeding public health and causing increased occurrences of obesity.

While obesity is framed as ‘epidemic’ and governance increases in response, those cultural differences related to food and eating are increasingly vulnerable to discrimination and political action. Scholars overwhelmingly agree that culture influences foodways and obesity, such as cultural differences in understandings of what, where, when, and how much to eat (see Aguirre 2009; Singer 2015; Grøn 2017). In contrast, some scholars argue that viewing obesity as a problem or ignorance of culture can lead to inadequate care and possibly reduce the condition to a culture-bound syndrome (Moffat 2010; Greenhalgh and Carney 2014; Yates-Doerr 2018). Lone Grøn (2017), in their ethnography of obesity among Danish families, demonstrates that the prevalence of this disease is more complicated than a simple attribution to foodways. By focusing on the Danish concept of *hygge*, or the practice of “socializing through the sharing of food and drink,” Grøn points out that not all of those who participate in excessive eating and *hygge* become obese (2017, 188). An important consideration Grøn makes, however, is that *hygge* is not simply limited to special occasions, but rather can be a central aspect of everyday life (2017, 189). Therefore, professionals and academics need to be careful about framing obesity as ‘epidemic’ or ‘communicable,’ as such integral cultural practices, like the Danish *hygge*, may be subject to governmental regulation and control.

In a related study, social scientists Greenhalgh and Carney (2014) use the notion of ‘biocitizenship’ to illustrate the ways in which Latin Americans are, to a broad extent,

being faulted for presumed cultural differences. Ideal biocitizens, Greenhalgh and Carney explain, are defined as those who “devote large amounts of time to dieting and exercising in order to maintain a medically ‘normal’ weight” (2014, 269). This notion of medically ‘normal’ weight, however, is based on the body mass index (BMI), which has been critiqued as an inappropriate screening tool for health (Halse 2009; Rosen 2014). Christine Halse outlines one of these critiques: “[BMI] is premised on the assumption that there is an identifiable ‘normal’ weight that is ‘true’ across genders and across different cultural, socio-economic and geographical groups. Yet even scientific experts who advocate the use of BMI as an epidemiological tool concede that it is an ‘arbitrary’ measure” (2009, 47). Furthermore, medical doctor Howard Rosen notes that the BMI is not an ideal tool of measurement because it does not account for variations in body composition, such as skin fold thickness (2014, 105). Nevertheless, the BMI continues to be the standard to define ‘normal’ bodies, weight, and health, as well as how biocitizenship is benchmarked.

Categorized as ‘bad’ biocitizens by government, media, and peers, ethnic minorities are being represented as having “limited knowledge about healthful eating and exercising” (Greenhalgh and Carney 2014, 268). In other words, non-Western groups, or Latin Americans in the case of Greenhalgh and Carney’s (2014) ethnography, are presumed to be ignorant to biomedical information about health and the human body, suggesting they simply do not know any better (Greenhalgh and Carney 2014). However, Greenhalgh and Carney (2014) demonstrate that these populations are not ignorant, but rather, they are entangled in complex social, political, and economic structures (i.e., job security, unaffordable housing, structural violence, domestic abuse, etc.), that act as barriers and prevent them from being ‘good’ biocitizens. In fact, some ethnographers have argued that

policy makers and health educators are ignorant for not understanding the diverse ways in which health and foodways are valued (Sanabria 2016; Yates-Doerr 2018). This ignorance was demonstrated in a speech at the 2013 annual conference of the National Council of La Raza (NCLR), where former First Lady Michelle Obama placed individual responsibility on the Latin communities for not owning or questioning their dietary beliefs and practices (Greenhalgh and Carney 2014, 268). It is important to emphasize again, as Emily Yates-Doerr reminds us, that there is no cross-cultural “consensus that fatness is unhealthy,” and we cannot assume otherwise (2018, 109).

As a result of increased intervention, the ‘epidemic’ framing of obesity has also led to an increase in funding for medical research, particularly for the studying of potential pharmaceutical applications (Moffat 2010). While this could lead to tremendous treatment options, some contend that this is yet another “parcel of a wider capitalistic health care system” (Moffat 2010, 8). For instance, Moffat claims that “there is a profit to be made from bariatric surgery for adults and clinics and camps to treat obese children” (2010, 8). This assertion stems from the wider critique of the ‘epidemic’ framework for public health policies and measures. As it has been demonstrated, the rising prevalence of obesity should be situated as resulting from larger societal, political, and economic structures. Despite the ‘epidemic’ framework of obesity, anthropologist Emilia Sanabria proposes that “the epistemic regimes that dominate the field of public health ... frame complex problems in a manner that reduces them to what is manageable, even when such framings are contested or shown to be inadequate” (2016, 135). As such, many public health approaches continue to present obesity as the responsibility of the individual and family (Moffat 2010; Greenhalgh and Carney 2014).

## CONCLUSION

There is no consensus on whether obesity is noncommunicable or communicable, as these concepts are continually being contested. Traditionally, noncommunicable diseases are distinguished as being nontransmissible, chronic conditions. As with the case of obesity, however, this distinction is deceptive as scholars and medical professionals continue to discover and argue the condition’s communicability. Regardless of its literal or metaphorical use, critical scholars continue to use caution when employing the phrase ‘epidemic.’

Despite positive effects of framing obesity as ‘epidemic,’ such as increased funding, research on obesity, and public awareness to the seriousness of the condition and prevalence, metaphors of contagion are more harmful than positive. Arguably, when obesity is framed as ‘epidemic,’ it is culturally understood as being a contaminating condition, which often has an ‘Othering’ effect. In addition, increasing the pathology and medicalization of obesity works to justify state intervention in public health, putting some vulnerable populations at risk of further exploitation and ill treatment. Furthermore, public health measures continue to target cultural behaviours at the individual and family level, such as diet and exercise habits, despite the ‘epidemic’ framing suggesting that it is not simply a lifestyle disease.

One way or the other, some scholars have suggested that “in an era when the ‘epidemic’ metaphor is invoked to describe everything from graffiti to plagiarism, if this figure of speech is not dead yet, it is at least tired” (Mitchell and McTigue 2007, 401). As Moffat suggests, however, “even if we abandon the ‘epidemic’ metaphor something is bound to replace it: as humans we live by metaphors” (2010, 13). To reiterate Brown’s (2014) claim for care when choosing metaphors, medical professionals and academics need to be aware of the complexity of conditions, as well as how

they are experienced, before applying metaphors of contagion.

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