Abstract: Currently there is a plethora of research literature which constructs obesity as an alarming new global pandemic associated with a multitude of acute and chronic diseases rooted in lifestyle factors. Although most of these claims related to obesity are well accepted in the research community, some challenges remain. For instance, lifestyle factors only partially explain the risks of developing obesity. In this paper, I have advocated for greater caution in interpreting some of the medical claims of obesity due to the epistemological and methodological assumptions that inform certain groups of obesity researchers. While most of the literature has reported lifestyle factors and behavior modification as the major mechanisms to achieving health and wellbeing, a few scholars have raised issues about structural factors.

Keywords: feminist political economy; racialized bodies; obese other; public health; social determinants of health

1. Introduction

The construction of obesity as an alarming new global health pandemic associated with a multitude of acute and chronic diseases that are rooted in lifestyle factors is well documented [1–4]. Obesity is considered unhealthy because it is linked to hypertension, type II diabetes, cardiovascular problems, gallbladder disease, certain arthritic conditions, and cancer [5–12]. There are also psychological and mental health co-morbidities associated with obesity [13,14].

Because of the aforementioned health issues linked to (or associated with) obesity, it is often perceived to be unhealthy in medical and public health discourses. In addition, obesity is presented as a burden on the workforce and is a central issue in terms of rising and uncontrollable health care costs and economic costs to society [4,15–17], estimated to be between $4.6 billion to $7.1 billion a year in Canada [18] and between $3.38 billion to $6.38 billion in the United States [19,20]. Obese individuals also have to deal with significant stigma [21–26].

These alarmist views of obesity have, over the years, escalated to anti-obesity hysteria, and renewed calls for immediate intervention in the medical and public health communities around the globe [15,27–29]. Although most of the above claims related to obesity are legitimate and well accepted in the research community, there is a need for greater caution in interpreting some of these claims due to the epistemological and methodological assumptions that inform various groups of obesity researchers.

I argue that the medical, social, and public health communities involved in obesity research and intervention advocacy can be epistemologically divided into a number of different schools of thought. These groups, which have competing interests and ideologies, also have very different ways of understanding obesity and advocating change. Some groups of scholars, such as those who explore fat studies, often refute the ways in which obesity is problematized, which is discussed further in the next section. They also conflate biomedical approaches with public health ones, but as I indicate in
in this paper, there are some significant differences. Ironically, these various perspectives seem to mirror some of the opposing interests found in conflict theory.

This paper critically examines biomedical approaches of obesity that are informed by positivist paradigms. These approaches are very traditionalist, yet remain the dominant narratives. I apply anti-racist feminist political economy and social determinants of health (“SDoH”) theoretical frameworks to argue for greater caution in public health discourses of intervention. Ultimately, the goal is to mitigate stigmatization and medical subordination of already vulnerable groups and their bodies. I also argue that the dominant narratives of obesity direct attention away from the reality that certain groups, particularly women, occupy particular material and social spaces. These social spaces highlight health equity and social inequality concerns.

This critical analysis employs an anti-racist feminist political economy lens, particularly the discourses of othering. Othering refers to the social, political, and economic exclusion of visible minorities and immigrants who are perceived as not belonging to the dominant in-group [30]. Othering was first coined as a systematic theoretical concept [31], although there are also contextual contributions to it in early post-colonial writing, which describes the construction of people from the so-called “Orient” by colonials as an exotic, subordinate, distant, and alien other [32,33]. The processes of racism and othering by the dominant in-group aim to subordinate racialized or immigrant people [30]. I suggest that the problem of obesity often includes the othering of racialized, immigrant women and men. The othering of obese individuals is amplified when these particular subjects are involved and this othering includes medical subordination, surveillance, and stigmatization of these groups and their bodies.

This analysis has several objectives: (1) to critique traditional biomedical approaches on obesity, which have problematic implications for (im)migrants and racialized persons; (2) to identify limitations in positivist paradigms that guide biomedical research; and (3) to offer new directions and explanatory mechanisms beyond the behaviorist interventions of exercise and dieting that tend to assign responsibility, blame, and health burdens on vulnerable people.

By traditionalist-oriented biomedical approaches, I refer to the early perspectives that originated from the 19th century and continue to inform and dominate contemporary health policy, which I construct as problematic. Such perspectives define health as merely an absence of illness or disease [34–36]. In contrast to these traditional, dominant perspectives, modern social epidemiology and public health is informed by research that re-orient the field with a holistic view of health that is more appropriate. This latter view of epidemiology and public health considers the social, economic, and political aspects of the life course and accepts the SDoH approach to understanding health and illness [37–40].

2. Fat Studies and Other Critical Obesity Literature

Fat studies is an interdisciplinary, critical, and often radical academic field that questions and problematizes traditional understandings and dominant discourses of obesity [41]. It rejects medicalized terms such as obesity, reclaims the term ‘fat’ to remove shame, and reinforces identity and pride [41]. It considers fatness as original and life-affirming, and includes social movements of size/fat acceptance, fat liberation, fat activism, fat politics [41], and health-at-every-size programs and approaches [42]. While some fat-studies writers support the idea that fatness may be a confounder for social and health inequalities, others reject the claim and suggest that being fat is not necessarily unhealthy, for a number of reasons that are detailed below [41].

The fat-studies literature critiques the dominant, biomedical discourses of obesity and also often epistemology and methodology of biomedicine that are informed by positivism [41,43]. According to [44], science and medicine are instrumental in oppressing fat people. First, the issue of obesity and the meaning of fat are a “discursively constructed category, and not simply a biological condition” [11] (p. 4). It can dichotomize people into in-groups and out-groups [41,45]. This is very similar to the process of
this results in fat-phobia laced with disgust and abhorrence that reinforces perceptions that fat bodies do not fit, both physically and metaphorically [46,47]. Secondly, fat-studies scholars describe the fear, disgust, hatred, and management of fat as something that is biased, extremely lucrative, profitable, and politically contested [41]. Scholars are increasingly recognizing that obesity research and management is not value-free [48]. The critical literature further suggests that the medicalized positivist solutions for obesity management through diet and exercise are lucrative for specific systems and economies i.e., pharmaceutical, food, and weight loss/diet industries, mass media [49,50]. This responsibility absolves government of responsibility for spending on healthcare and social services. The profitability and political nature of obesity research is apparent in the World Health Organization’s (“WHO”) International Obesity Task Force. This task force is a pressure group that consists of health professionals who assert that obesity is a global, pandemic issue, but they act in the interests of, and are also financially supported by, for-profit weight-loss corporations, pharmaceutical companies, and business groups [2,41,48]. It is a $58.6 billion industry [42,51].

Thirdly, fat-studies scholarship also raises the concerns about fat-hatred and fat-panic [41,52]. This scholarship suggests that fatness mobilizes anxiety, with a metaphorical war on obesity [53] and “fantastically apocalyptic rhetoric” about obesity as a time-bomb, which ultimately signals a death drive that threatens humanity and civilization as we know it [47] (p. 1). According to some of these fat-studies scholars, the obese Other is queer, anti-social, and threatens the reproductive future [47].

Fourthly, fat-studies and other critical scholarship also raise the concerns about stigma and morality [11], as well as exposing health care workers’ critical and value-laden gaze towards fat/obese people [41,54], and about fat prejudice, discrimination, social exclusion, dehumanization, and distress [4]. For instance, obesity has moral connotations of gluttony and sloth [29,55,56]. It results in blaming people for being lazy, lacking the ability to integrate, lacking self-control, and/or having no will power [49,57]. Such assumptions also result in attempts to police people’s bodies with increased surveillance and regulation of various vulnerable groups such as women, the elderly, disabled persons, and young people, among others [58,59].

Some fat-studies scholars also feel that it is a dangerous and irrelevant goal to fix fat bodies because such treatment ignores human diversity [41,60]. Some people are naturally tall or short, and others weigh more or less [51]. In Canada, the ideas about appearance, and food consumption, for example, are based on “Euro-Canadian” values and norms [11] (p. 8). These norms and values are often rigid and seldom do these perceptions change. The biomedical construction of obesity as a pathology, or epidemic, can also result in harmful crash or yo-yo dieting [11], self-hatred, eating disorders, inflammation, and poor health [48].

Fat-studies scholars view alarmist body mass indices (“BMIs”) as ways to medically control and map human bodies [41,60]. The biomedical mapping of human bodies does not sit well with many fat-studies scholars and feminists who reject biomedical and patriarchal notions that define and attempt to control the female body and grant men authority [11]. They reject the meanings and ideas behind size, beauty, and slenderness [41,61,62]. Indeed, to the horror of many fat-studies scholars and feminists, there is an “impulse to systematically collect population-scale data on size, shape, and capacities of human bodies” [11] (p. 34). Using terms such as obese medicalizes human diversity, categorizes fat people as social untouchables and inspires the misplaced search for cures [51]. There is also blame on women, such as poor mothering practices, “mother’s incompetence” [11] (p. 8) and “bad mothers” [11] (p. 188) and women’s increasing entry into the labour force as the culprits behind childhood obesity and childhood diabetes [49,63].

The mapping and control of the human body through biomedicine is not new, and for obesity, it is pervasive. It conjures images of people living leisure lifestyles with cars, televisions, videogames, and eating fatty or sugary foods like pizza, hamburgers, and pop/soda [47,48]. Cultural stereotypes have placed so much stigma and shame on obese/fat people that in the media, obese bodies are displayed as if they do not deserve a face [48].
In the fat-studies literature, immigrant/racial tensions related obesity are raised as problematic, but they are seldom described through in-depth analysis. To date, there has been some literature about the way obesity challenges docile, obedient, restrained “middle-class whiteness” that is linked to self-control, mind over body, and tightness [64] (p. 200), indigenous and aboriginal people’s increased risk of diabetes and obesity, the twin or dual epidemics [65,66], black lesbian women’s fatness as a symptom of racism and other forms of oppression [67], and how directing attention to medical or health issues in these groups renders invisible structural factors such as racism, poverty, distress, duress, under-nutrition, and colonialism [68,69]. However, the structural disparities among racialized groups are only briefly mentioned.

Indeed, as I elaborate in a later section, obesity is amplified as a problem of/for particular groups, such as racialized minorities, (im)migrants, and the poor, who are some of the most vulnerable populations on multiple levels [49,57,67]. I suggest that the biomedical approaches towards obesity result in anxieties about race, class, and in othering, which constructs and essentializes a pathological body that is an obese Other. From an anti-racist perspective, I would argue that the obese Other conjures up an image of an obesity-homunculus in our minds that has a fat, oversized abdomen, and is often representative of the most vulnerable populations—the poor, women, (im)migrants, and racialized people. A homunculus is often portrayed as a cartoon in medical textbooks and used by neuro-physiologists to portray the somatosensory cortex of the human brain in order to better articulate a cortical map of their knowledge of the primary sensory and motor cortex (Figure 1).

The different sizes of this somatosensory homunculus’ body parts are proportional to the density of neurons (receptors) in that region of the human body with an enlarged head, lips, reproductive organ, and hands [70]. Drawing on a parallel concept of the somatosensory homunculus, I suggest that the medicalization of obesity has resulted in the perception of an obesity homunculus in our minds that conjures the images of the Others.

**Figure 1.** The somatosensory homunculus is often used to teach medical and health-science students about the somatosensory cortex of the human brain, and represents the mapping of the human brain. The size of the homunculus’ head and hands are relatively proportional to the large amount of the somatosensory cortex of the brain devoted to these regions. Taken from [70], page 205.

Another point I wish to highlight is that while the fat studies literature described above has many valid points, often, this scholarship lumps together biomedical and public health approaches e.g., “[...] public health official declares ‘war on obesity’ [...]” [51] (p. ix). Others further incorrectly declare that “[d]rug company money funds [...] public health education [...]” [50] (p. 75). The reality, however, is that pharmaceutical/drug company money does not fund public health education per se. Rather, it funds medical education and organized medical forums and conferences [71–75]. There are, in fact, significant differences between biomedical and public health approaches towards obesity, as discussed in the following sections.

**3. Bio-Medical Approaches to Obesity**

(Bio)medical approaches to obesity are advocated by people who I call opportunistic behaviour-change theorists. I do not call them opportunistic with the intention to label all behaviour change theorists this way. Rather, the term denotes those who hold particular ideologies and assumptions that may do more harm than good. This group assumes a pathological view of obesity, associated with biological
or genetic pre-dispositions to obesity, while simultaneously having an effect of casting heavy bodies into a negative light [76–78]. In fact, in the biomedical literature, the obesity pandemic is often dubbed ‘diabesity’ and also unfairly inscribes notions of bodily heaviness as a deviation from an ideal, lean, healthy, and ‘normal’ body type [25,26,76,77,79]. Certain body types such as ‘apple-shaped’ are also deemed to be unhealthy compared to ‘pear-shaped’ bodies [4]. Both in health and in fashion, there has been a hegemonic beauty norm: thin is ‘in’ [29,80]. Indeed, the latter is essentialized as a biologically younger age, and being lean and healthy is synonymous with wearing a badge of honour [81], albeit there is now greater acceptance of a wider range of body types in popular culture, such as curvy bodies.

The epistemological assumptions of biomedicine and the medical approaches to obesity are constructed with a focus on individuals such that people are held responsible for their own behaviors. In the event of failure, it is automatically assumed that people have brought the misfortune of illness upon themselves. This failure also raises a need for medical intervention, which, in turn, reinforces medicalized, positivist solutions such as behaviour modification [82] and gives rise to individualized solutions [83].

The biomedical approach to obesity often frames the solutions to obesity in predictable ways. For example, the solutions tend to focus on weight reduction through diet, exercise, as well as greater medical surveillance and screening of high-risk and vulnerable groups [48], implementing surgical procedures, reducing waistlines and waist circumference [84], increasing the research and development of drugs controlling weight gain, advocating interventions that include adapting good nutrition behaviours, healthy diets, and exercise, implementing good nutrition standards in school systems, improving food labelling in order to educate people to make informed decisions, and imposing junk food taxes [4,84–89].

Some researchers have gone as far as to suggest monitoring and medical policing of racialized groups’ BMIs, and have suggested that BMIs should be lowered from the 30 kg/m² standard to a cut-offs of 26 kg/m² for “black subjects”—a group that is not defined by any particular ethnicity that the researchers lump into a single category while comparing them to other racialized ethnic groups [90]. They denote the other cut-offs as follows: 25 kg/m² for Chinese subjects, and 24 kg/m² for South Asian subjects, meaning that all of these racialized groups would need to be even slimmer than non-racialized groups to achieve equivalent health benefits. While these solutions to obesity might be perceived as logical and sensible, they are inadequate and often fail for a number of reasons mentioned below.

4. Why Individual Behaviors and Lifestyle Choices Fail

Imposing lifestyle changes, behaviour modification, diets, and promoting physical activity in order to tackle the health problems related to obesity is a recipe for failure, and furthermore, they are not very effective for managing diseases that have apparently plagued obese bodies because the underlying issues of income inequality, social exclusion, sexism, and racism need to be addressed [37,38,83,91]. As one researcher [47] correctly recognizes, there is a tension between structural and individual factors in obesity issues.

Biomedical approaches to obesity are inadequate because they do not recognize the influence of the wider social environment on individuals and their health [92]. Furthermore, they also neglect prevention and over-rely on treatment or cures [93]. The focus on treatment and cures rather than prevention efforts can lead to gendered, biased, costly, and unnecessary interventions. For instance, in Canada, the biomedical reliance on treatment and cures has resulted in women undergoing many tests and some surgeries, such as ultrasounds and Caesarean deliveries, wastefully or inappropriately [94]. In the UK, this has resulted in women being inappropriately prescribed tranquilizers [95]. Some feminist scholars have suggested that these patterns reflect gendered attempts by the state and by men to exert power or control over the female body [93–96]. Until the 1990s, for example, midwifery practice was not integrated into the health care system, in fact, there were active attempts to eradicate and eliminate it altogether by male physicians in Ontario [96], who could clearly benefit from caesarian operations. In Brazil, women have also been increasingly pressured into
caesarian deliveries inappropriately [97,98]. Diet and exercise interventions that are advocated under a biomedical approach are flawed by methodological assumptions that are behaviour-driven. They are, and often will be, limited and unsuccessful because weight management precludes social and material contexts of morbidity and mortality [99]. The causes of obesity and the associated risks for mortality are instead multifactorial [4]. As researchers [95,100] indicated, food-poverty, agribusiness, and cheap products that are nutritiously deficient may be to blame for health problems and obesity issues among particular classes of people (i.e., the working poor or low socioeconomic status groups). Accordingly, poor people, who lack access to nutritious, healthy, safe, and reliable food, and who experience food insecurity, would be the ones who are more susceptible to obesity and other health and safety issues.

While the fat-studies literature is useful because it highlights how the problem of obesity is gendered, politicized, and economically motivated, the literature about racialized and immigrant people is sparse. The reality is that obesity/diabetes-related health issues among racialized persons and immigrants are equity issues that are influenced by many underlying factors that have complex relationships beyond cause, effect, or associations that are otherwise privileged in biomedical approaches, and they are certainly not limited to individual behaviours. For example, occupational disease might be associated with particular working conditions, work exposures, or ergonomics issues, but there might be additional factors that influence patterns of sickness in workers, such as income, social status, ability to purchase nutritious foods [95], and being racialized, immigrant, or a woman. These latter perspectives are accepted by public health approaches, which I describe in the following section.

5. Public Health Approaches to Obesity

The public health approach to obesity is often composed of structural activists and specific policy-change theorists, who suggest that obesity originates in the structure of society, which requires policy change very early in the life course [101,102] and in the social, political, and economic environments. This group argues that while risk factors for mortality are related to health behaviours and sedentary lifestyles, it is only to a small extent [103]. Rather, a wide array of factors, such as structural elements of inequality in society, account for obesity-related mortality differentials among people [103]. For instance, it is argued that the issues of obesity and weight are matters of policies, politics, and economics: overweight conditions and obesity are a risk for the poor [104]. Obesity is, as a matter of fact, a marker of poverty [105,106]. For example, obesity in the lowest income children can be explained by low levels of participation in recreational activities because of barriers such as user fees, unavailability of transportation, limited infrastructure facilities in low-income areas, and high equipment costs [104]. Obesity is also modulated by the type of welfare state/regime [107], with some of the highest proportions of obese individuals found in neoliberal states such as the USA and the UK compared to social democratic states such as Norway and Sweden, because income inequality, poverty rates, and governmental responses to these problems also vary.

The public health approach to obesity includes advocating a variety of solutions, such as through urban environmental interventions like building safe walkways, bicycle paths, and improving building design to encourage stairwell use [85,90]. Other approaches include allocating limited resources for provisions of good, stable jobs, decent income, poverty-reduction strategies, decent housing, and they advocate the SDoH approach [29,39,40,108], which would include tackling inequalities based on class, race, immigrant status, and sex/gender. The concluding section of this paper will consider the bio-medicalization of immigrants and racialized people and how health equity issues in these groups may be addressed through public health discourses.

6. (Bio)-Medicalization of Immigrants and Racialized Persons

As I mentioned earlier in the section about the fat-studies literature, race, immigrant-status, class, sex/gender and other levels of marginalization intersect with issues of obesity. However, the connections
between race, immigrant status, sex/gender and obesity are often vague. At this junction, it is necessary to describe how social, economic, and other contexts are connected with obesity among these groups.

The groups who are vulnerable to obesity-related diseases are in fact, groups who are vulnerable to poverty, illness, and diseases related to low income, psycho-social/chronic stress, and socioeconomic status disparities [48,109,110], occupational issues, and other health inequities. These groups are (im)migrants [111], racialized populations, and women among others [37,91,112–119]. Indeed, South Asians (hazard ratio 3.40, \( p < 0.001 \)), people of African ancestry (1.99, \( p < 0.001 \)), and Chinese people (1.87, \( p = 0.002 \)) have a significantly higher risk of obesity and the onset of type II diabetes than white people [90,120].

The literature shows that women, racialized persons and (im)migrants are vulnerable to both acute and chronic health problems because of their experiences of sexism, discrimination, and racism in the labour market [119,121,122] that lead to major health risks such as work-related accidents or illness, severe mental stress, as well as income inequalities and health inequities [91,117,118,123–128]. Race and immigrant status pose double and triple burdens, respectively, for men and women who would experience multiple levels of marginalization. Research with an intersectionality lens shows that there is a pattern of subordination that intersects with people’s lives, such as the relative subordination of black women to white women in America [129]. Immigrant women, and particularly immigrant women of color, are also susceptible to this subordination because of their legal status, as well as language barriers, cultural identity, and class, among other factors [129].

While it has been increasingly accepted that obesity is problematic for these vulnerable groups, at the same time, the obesity ‘problem’ perpetuates stigma and medicalized images that actually construct a pathological body which is racialized and gendered. It conjures up an image of an obese Other which is biomedically subordinated and socially stigmatized. For example, widespread moral panic and racist, false accusations were perpetuated by the media which portrayed that a mysterious illness was brought to Canada by a Congolese female visitor in Hamilton, Ontario, Canada [130]. The analysis of this event demonstrated the widespread panic and racism against black people. This particular case identified how the media constituted a black migrant woman as a particular person who had the potential of reproducing a biological threat, how the media constituted black people as having the ability to carry potentially deadly diseases, as well as how the media criminalized them [130]. The crisis of Severe Acute Respiratory Syndrome (SARS) in 2003 also raised racist connotations. SARS was perceived to be a disease brought on by migration and originated from Asians, which led to a surge in discrimination against these groups [131,132]. While obesity is not virulent as contagious-borne illnesses as in SARS, obesity is still constituted in a problematic way among racialized groups. Indeed, one researcher correctly recognizes that obesity is often explored as non-white, non-western, and “Non-American” [133] (p. 16). Others recognize that obesity is connected to metaphors of disease and plague that threaten contagions, loss of immunity, degeneration, social death, and species extinction [47,134]. The same type of moral panic is raised when race intersects with issues such as obesity. The biomedicalization of obesity amplifies these racial tensions.

The biomedical preoccupation of racialized bodies that are the objects of contemporary medical subordination and surveillance have led to biomedical interventions aimed at these populations, despite showing no clinical symptoms of disease. For example, overweight and obesity-related research has prompted biomedical interventions aimed at racialized, vulnerable groups, and has prompted extra medical monitoring, screening, and surveillance in asymptomatic people of colour. This type of medical surveillance is in fact, a core recommendation for racialized persons of African or Asian ancestry [135].

Medical surveillance raises ethical dilemmas and is problematic because racialized bodies are already under heavy scrutiny and endure non-medical forms of surveillance due to race, ethnicity or (im)migration status. For example, racialized persons such as Canadian blacks experience unfair police surveillance through discriminatory carding practices [136]. Similarly, migrant persons from South Asia and the Middle East, and racialized Muslims have been experiencing growing surveillance
through post-9/11 backlash against these groups [137–139]. Is medical surveillance another form of control, and policing of racialized bodies? This is an area that remains to be investigated but the increasing association of obesity with racialized (im)migrant bodies and Others suggests that this possibility is worth exploring.

7. Conclusions

Biomedical calls for behaviour modification are embedded in social, political, and economic realities, which are opportunistic and lucrative for specific systems (i.e., pharmaceutical, food, nutrition, and diet industries, mass media), while removing responsibility from governments and government spending on healthcare and social services. Biomedical views of obesity have resulted in medical interventions that reinforce medicalized, positivist, and paternalistic solutions, such as exercise and screening/surveillance among specific groups of people. However, these traditionalist interventions themselves will be ultimately limited and unsuccessful because they preclude social and material contexts of these groups. An alternative framework that considers political economy perspectives and the SDoH approach is needed because there are various structural, organizational, community, social, cultural, and policy factors that play a role in the development of illness and health.

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