PERCEPTIONS OF WEIGHT IN RELATION TO HEALTH, HUNGER, AND BELONGING AMONG WOMEN IN PERIURBAN SOUTH AFRICA

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Perceptions of weight in relation to health, hunger, and belonging among women in periurban South Africa

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ABSTRACT

Obesity among South African women represents an important dimension of noncommunicable disease (NCD) risk. Experiences of weight are an under-explored frame of reference for intervention. Using three-part in-depth interviews with 20 women and 9 focus groups with a total of 57 women ($N = 77$) in one low-income neighborhood, I relate women's positive perceptions of fatness to belonging and experiences of hunger. Aware of public health obesity messaging, participants tried to lose weight, yet stress and food scarcity impacted weight gain. Whereas public health interventions focus on behavior, responses to NCDs must recognize the role of food systems and poverty in shaping risk profiles.

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In contexts around the world where rates of obesity are high and yet many individuals are also food insecure, the overlap between obesity and hunger represents an important yet poorly understood area of research. Weight is one mechanism for assessing health and noncommunicable disease (NCD) risk, where body mass index (BMI) is a common indicator to categorize individuals' weight in health care settings. Drawing on in-depth interviews and focus groups, in this article I explore the intersections between health, hunger, and belonging, drawing on the experiences of women in one periurban neighborhood of Cape Town, South Africa.

Background

Obesity is perceived as an urgent public health priority in South Africa (Mayosi et al., 2009); 41% of black women, 31% of white women, 46% of colored women are obese (Statistics South Africa, 2017). These rates may be even higher for periurban black populations: in a study based in Khayelitsha, a periurban area of Cape Town, Malholtra et al. (2008) found that 53% of women were obese, with an additional 25% overweight based

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on BMI measure (Malhotra et al., 2008). Rates of obesity correspond to increases in noncommunicable disease burden at the population level, including cardiovascular disease and diabetes (Kruger, Venter, & Vorster, 2001; Kruger, Puoane, Senekal, & van der Merwe, 2005).

The medical framing of obesity focuses on health risks related to obesity, and several articles have made the case that high weight is incorrectly perceived as healthy and attractive among black South Africans (Malhotra et al., 2008; Mchiza, Goedecke, & Lambert, 2011; Mvo, Dick, & Steyn, 1999; Puoane, Fourie, & Shapiro, 2005). In a study of body size, Puoane et al. (2005) contended that only 27% of overweight and obese black South African women recognized themselves as such, in comparison with 100% of white South African women (Puoane et al., 2005). Mchiza et al. (2011) concluded that efforts should be made: "to help dispel the myth and stereotypes suggesting 'big' to be beautiful, healthy and respected" (Mchiza et al., 2011). Kruger et al. (2005) writes that "programmes should aim to empower individuals/groups to take responsibility for making permanent lifestyle changes toward healthy dietary intake and physical activity through behavioural modification" (p. 495). Motivating behavior change and education are seen as key interventions for obesity (Armstrong, Lambert, Sharwood, & Lambert, 2006; Mchiza et al., 2011).

This is consistent with a broader international narrative, in which researchers position motivation, perception, and knowledge as key elements to improving public health in relation to diet and weight. In a recent article detailing socio-economic status in relation to perceptions of body weight in Turkey, Akgöz, Gözüm, & Ilgaz (2017) asserted that low-income women had an incorrect perception of their weight, and should be educated about correct body weight (Akgöz, Gözüm, & Ilgaz, 2017). Similarly, in a study of self-perceived weight status in Dar es Salaam, Tanzania, Shekalaghe & Urassa (2015) found that the majority of overweight and obese patients had incorrect perceptions of their weight, and recommended that health facilities intervene to prevent diet-related NCDs (Shekalaghe & Urassa, 2015). Yet in a South Korean sample, Kwon (2017) found that individuals who self-identified as overweight and were overweight (thus had correct perceptions of body weight) were actually at greater risk or poor/fair self-assessed health (Kwon, 2017). There is also is a robust international literature that highlights the danger of weight stigma in increasing obesity risk (Puhl & Suh, 2015), with stigma being an important mediator of the relationship between BMI and health (Hunger & Major, 2015; Hunger, Major, Blodorn, & Miller, 2015).

The discourse of improving the accuracy of self-perceived weight, of dispelling cultural myths or taking responsibility for diet, assume that target populations have a low level of dietary knowledge juxtaposed with a high

level of choice and control over multiple factors related to obesity and diet-related noncommunicable disease. Yet contrasting perspectives have emerged in the literature: for example, Sedibe found widespread knowledge of healthy eating among adolescent girls in a rural setting in South Africa (Sedibe et al., 2014).

An approach focused on education and choice also assumes a very high level of confidence in nutrition science, and in both the causes and health implications of obesity. a confidence that Scrinis (2008) cogently critiques in his work on nutritionism. Indeed, there is growing awareness of the sheer complexity of diet-related noncommunicable disease risk: the developmental origins of health and disease (DOHAD) (Deboer et al., 2012; Yajnik et al., 2003) microbiome (Turnbaugh et al., 2006) and epigenetics literatures (Heerwagen, Miller, Barbour, & Friedman, 2010) all represent rapidly developing fields that highlight the disproportionate susceptibility of certain populations to both obesity and noncommunicable diseases like diabetes and hypertension.

Moreover, the limitation of food choice for the poor in the global food environment remains a vital consideration. Large conglomerates selling ultra-processed foods have specifically targeted low-and-middle countries as potential markets (Monteiro & Cannon, 2012; Moodie et al., 2013). Urban spaces are full of ultra-processed food, which are implicated as causes of obesity and noncommunicable disease (Monteiro, Levy, Claro, De Castro, & Cannon, 2010). Several South African studies have highlighted lack of dietary choice, given the multiple dimensions of unhealthy food environments (Temple & Steyn, 2011), and the powerful presence of Big Food and Big Drink (Igumbor et al., 2012). Finally, while several studies mention poverty as a factor shaping obesity in South Africa, there is little mention of hunger in the obesity literature.

Hunger: food insecurity in South Africa

In the food security literature, researchers have named obesity as one common manifestation of food insecurity, together with hunger (Battersby & Peyton, 2014; Labadarios et al., 2011; Oldewage-Theron, Dicks, & Napier, 2006). The definition of food security clearly includes some recognition of dietary quality: "when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life" (FAO, 1996). Here, lack of food choice, and resultant obesity, may be one dimension of food insecurity. The role of the food environment—and the relative affordability of energy dense, nutrient poor foods—has been highlighted in relation to the health of the poor in South Africa (Temple & Steyn, 2011). While 68%

of Cape Town residents were found to be food insecure (Crush & Frayne, 2010), 32% of urban informal residents across South Africa experience hunger (Shisana et al., 2013). This experience of hunger also has a gender dimension, with women-centered households more likely to experience food insecurity (Frayne, Battersby-Lennard, Fincham, & Haysom, 2009). Rates of obesity are also higher among women (Kruger et al., 2005). These intersections between gender, obesity and food insecurity are messy and suggest the value of more nuanced narratives, and of emphasizing low-income women's own descriptions of weight.

Social belonging

Food and weight are integral parts of social belonging, or one's sense of positive connection to others (Stead, McDermott, MacKintosh, & Adamson, 2011). The public health narrative that black South Africans favorably identify with "fatness" tends to frame this as a problem (or "myth") to be fixed, rather than a dimension of social belonging and shared history. Indeed, negative stereotypes related to fatness also carry social weight: Guthman points out that not everyone becomes obese, and that, at least in the US. context, there are patterns of whose bodies are considered acceptable, and whose are not (Guthman, 2009). In fact, both the moral and physical burden of weight is borne disproportionately by the poor (Guthman, 2011). These dimensions of belonging and exclusion are an important frame for understanding how women navigate weight in a low-income setting in South Africa, given the compounding of the moral and physical burdens of obesity, together with food insecurity.

Conclusion

There is relatively few articles in which researchers focus on everyday experiences of weight (Warin & Gunson, 2013), and even fewer in low-and-middle-income country (LMIC) contexts. In this article, I consider the intersections between hunger and obesity in one low-income community in South Africa, connecting weight to social belonging.

Methods

The interview and focus group guides in our broader study related to memories of food in the past, current experiences of food, and related perceptions of health. The qualitative methodology includes three-part oral histories with 20 women as well as nine focus group discussions with 57 individuals. These interviews and focus groups took place within broader ongoing ethnographic research, spanning from 2016 to the present.

Setting, sampling, and research team

Fieldwork took place in in a poor black neighborhood about 50 km South of Cape Town city center. This neighborhood is densely settled with a mix of brick houses, backyard shacks, and informal shacks. The informal shacks occupy a wetland area, which frequently floods in the winter, and is prone to fire because of density, lack of roads and the use of indoor propane fires. There is a consistent availability of many foods at nearby mall supermarkets (2 km away), as well as small, often Somali-owned supermarkets and roadside stalls (vegetables, cooked meat, and snack foods). Some residents also work in the city center, and pass through other parts of the city on their way to Cape Town city center, where they purchase food.

Prior to conducting our field research, we established a core research team, including: the author, an experienced focus group moderator, and a bilingual English-Xhosa based research assistant. We also spent time getting to know nongovernmental and faith-based organizations in the area, and used these connections to recruit interested participants. Participants were recruited to provide rich information, (O'Reilly & Parker, 2012) while representing a broad range of ages (age 20–84), lengths of time in the neighborhood (0–30), education, and living in brick houses (32%), as well as backyard shacks or shacks in the informal part of neighborhood (68%). They were not screened according by weight.

Oral histories

I conducted three interviews each, spaced about one week apart, with eighteen women. I conducted a single interview with two additional women: one did not feel that she had additional information to share due to a lifetime of hunger and the other could not be reached after an initial interview. Findings from all 20 women participants are included in this analysis. Drawing on oral history methodologies I created an interview guide that builds a timeline of food experiences and interactions (Benson & Nagar, 2006). Questions included memories of food and health as a child, during the formative years of young adulthood (and sometimes the early years of marriage), and perspectives about the current food environment. These questions helped participants to reflect on the role food had played in their lives, and on food access, preferences, and self-perceived health.

Focus group discussions

Nine focus groups offered collective perspectives on food experiences. These group perspectives tended to evoke different kinds of discussion than individual interviews, as the participants discussed food issues with

each other, rather than primarily with the moderator, who in this case has a different background and experience to the participants. Nine focus group discussions were conducted, each with between six and ten individuals ($n = 57$).

Language

I conducted all in-depth interviews. In cases where participants preferred to conduct the interview in isiXhosa, an isiXhosa-speaking research assistant assisted with interpretation. All focus groups were conducted by one experienced focus group moderator, who was also assisted by the Xhosa-speaking research assistant. All recordings were professionally translated and transcribed. They were then checked for both quality of translation and quality of transcription.

Thematic analysis

All transcripts were read multiple times for overall meaning and key issues emphasized by participants. In this article, I focus my analysis on discussions of weight, as it represented an ongoing theme in conferences, literature, and in the transcripts themselves. Thematic analysis is theoretically flexible and can include both deductive and inductive dimensions, yet uses a rigorous process (Braun & Clarke, 2006). As such, I generated a general initial code related specifically to weight (including "size", "overweight", "fat", "fatness", "obesity", "thin") and extracted these blocks of text for further analysis. Thematic codes (Boyatzis, 1998) related to weight were discussed and settled upon in collaboration with two research assistants who were integrally involved in focus group discussions as well as translation (where applicable) and checking of transcripts. Interpretations of these themes, as well as the overall narrative related to these themes, were discussed extensively in presentations as well as in the context of ongoing participatory research within the same neighborhood. All focus group and in-depth interview transcripts were coded manually using Hyperresearch (Researchware Inc., 2009, MA, USA).

Ethical considerations

In-depth interview and focus group discussion participants received a gift card of R50 (US$4) as a thank you for the time spent in the interview or focus group. Participants also received a snack and drink during interviews and focus groups. Transcripts were blinded and both audio and written transcripts were kept securely in password protected electronic format.

Ethical standards disclosure

I conducted this study according to the guidelines laid down by the Declaration of Helsinki (Fortaleza, Brazil 2013) and all procedures involving human subjects were approved by the Human Research Ethics Committee of University of Cape Town, Health Sciences (HREC 098/2016). Written informed consent included an outline of the purpose of the research, risks and benefits, and the opportunity to opt out before or during the interview, thereby giving participants several opportunities to opt out.

Results

In this section I present heterogonous experiences of weight in three dominant narratives that speak to both the literature and the emphases of participants: (1) 'Fatness' and belonging. (2) Health considerations and pressure to lose weight. (3) Weight in relation to hunger, stress and social exclusion

(1) 'Fatness' and belonging

Participants perceived fatness relative to relationships, comfort, and life satisfaction. This contrasts with public health and clinical settings, where specific measures—weight or waist circumference in particular—have become mechanisms for judging health. Positive associations related to "fatness" were expressed in terms of social linkages, comparisons to others, belonging, and status: "*it's to impress people to be fat sometimes*" and, "*we want to be full … I can't go to bed with a slice of toast! I want to be fat like others.*"

This included negative social pressure related to "thinness": "*Because also if you are so thin, people can call you names, like skeleton and it is not nice.*" In these discussions, participants also distinguished between fatness, being "well-built" and obesity: *When they dress they want to be well built but not like obese, we want those tight things!*

Weight gain sometimes also signified care and comfort, when maintaining the same weight signified lack of these things:

> Let's say you get married and you start picking up weight a bit maybe, that's a sign that culturally maybe your husband is taking care of you, he can sustain he can take care of you but if you if you keep the weight that means maybe something is wrong your husband is not treating you right and not taking care of you.

This view of weight gain was not accepted uncritically, or collectively. Rather, they were expressed alongside descriptions of inter-generational experience of hunger and subsistence food production in the Eastern Cape, where the considerable burden of food preparation was often borne

disproportionately by young, unmarried women, and sometimes also by newly married women who joined their husband's household. In this context, weight gain was not necessarily synonymous with a transition to ill-health. Positive associations with weight gain seemed to reflect a specific historical relationship with food, a relationship that has changed rapidly, together with rapidly changing social norms:

> … for the young ones they (are) very open minded and they speak their mind, they are raised in a different era from us. … at my age I have to look at society at large, how are they going to see me?

To the extent that positive sentiments around fatness were expressed, they were expressed in the context of social linkages—fatness outwardly presented an image of belonging and willingness to conform, care, satisfaction in marriage, satiety. Where fatness was valued, it was beautiful because of what it signified, particularly when juxtaposed with underlying hunger and difficult social contexts in a low-income periurban context. Indeed, weight could, at times, be interpreted as a way of putting on a brave face, veiling hunger or unemployment.

(2) Health considerations and pressure to lose weight

The outward signals conveyed by the body were important to how women interacted with their networks, yet they were often in tension with pervasive images of thinness. This tension was reinforced and medicalized in clinical settings. This seemed to be at least partly due to perceived "cultural" perceptions of weight having been dismissed as out-dated and unhealthy in clinical and public health settings, as well as in media portrayals. In this context, participants' narratives related well-worn clinical narratives of thinness, health, and personal responsibility:

> … in the old days ., I need to be fat to have big bums and big boobs or whatever (lots of laughter!), but now those things are not smart to me anymore because I know it's not healthy …

> We want to be slim, and it helps in the immune system, the joints sometimes pain, if you don't eat healthy food you will get a big body.

Participants also distanced themselves from the stereotype that individuals who were thin were seen to be HIV-positive: "*it used to be like that but due to the presence of ARVs (anti-retrovirals), it's not a problem anymore; you will see a person fat with her ARVS*". Thus, whereas previously a common perception was that people signified their HIV negative status by maintaining higher weight, today, the high rate of HIV treatment meant that weight was no longer associated with one's HIV status, and there was no longer pressure to be overweight in order to present as HIV negative

within the community. In this context many participants shared very strong affirmations that overweight and obesity as problematic: "*We have got a weight problem, everyone … Everyone is big.*" This included a strong sense of personal responsibility for one's own weight, and participants shared very specific efforts to lose weight:

> I like the coke before but now I, I see my stomach is very big because of coke, so I drink water instead of coke (laughter) … I like my body now because … I'm 85kg now I, I was before I was 96kg

These experiences of weight often conveyed a burden of personal responsibility. One respondent who reported walking at 5 am did so on a very busy road, often in the dark, from one township to another. Here, there were lived contradictions even when individuals seemed to wholeheartedly embrace nutritional recommendations received in clinics. Historical experiences and positive associations with fatness were seen as backward cultural myths in clinical settings, and also when younger participants spoke of parents' dietary practices and beliefs. Yet those beliefs also occupied a time and space in which NCDs such as diabetes and high blood pressure were seen as unusual. While embracing clinical measures of obesity, tracking their weight with considerable precision, and often taking on considerable exercise regimens, participants felt that high blood pressure and diabetes were now very common in their community and families, and also that they individually were less healthy than previous generations.

Moreover, participants' experiences related to weight-loss were not only shaped by a personal desire to be healthy. Rather, the experience also involved an imposition of power and judgment, of being told to change in both clinical settings and in places of employment. For example, it was not uncommon for participants to speak about being "put on a diet" by their white employer, while working as a domestic worker:

> Until I was working for somebody then that lady was following me saying "I can see when you are going upstairs, I can look at you, can you see how fat you are! You will collapse." Then she started to put me on diet, I thought this lady doesn't want me to eat food, her food (laughter!), I thought she didn't like me to eat, I was starting to be put on diet … I started to see my body, I started to feel active.

The assumption in these interactions was that, due to weight, the employee was unhealthy, and given that it was not an isolated event (many participants had been put on diets!), it implies that it is socially acceptable for the white employer to weigh in on the domestic worker's weight. Racial and class overtones found an outlet in the form of moral judgment around weight.

Norms related to eating and weight are imposed in multiple ways—from media, to schools, clinics, and the workplace. The language of "diet culture" had a big influence on many people's perceptions of weight, and some of

these perspectives on diet were explicitly racial and imbued with power dynamics:

> At the time I was in the college then at, at that time, you know the fashion, there was a skinny jeans, tight, short, if you are fatter they don't fit you nicely, ah, and I also learn, as I said, I also learn from other, other people like coloureds or white people because I was in the college at that time, they don't eat much, they don't eat fatty foods. Sometimes we used to eat like fruit and that's all, so I learn a lot about a, a diet.

Many participants had experiences in medical settings where they or others had been told that they were obese. Having been labeled as a health risk and counseled accordingly, they were highly aware of the medical implications of obesity and even given some, albeit limited and sometimes contradictory, nutritional advice. However, despite awareness of the problem, medical recommendations were not necessarily readily taken up:

> Going to the hospital … the doctor tells them that they are overweight! That's when they take care of the diet. I'm talking about my mother though, this other time she went to a doctor and they told her she was overweight and they gave her a diet and she followed it for three days and she then said "I'm sick and tired of this!"

Being labeled as overweight or obese in the context of family and fertility planning led to increased efforts to lose weight:

> For me I don't mind to look thin, because it's not about them it's all about me, I know I am overweight according to my age, because I was planning to have a child, it is a problem because I can't get a child now because of the weights I try to do some [exercise and diet] because of this child, for me I don't mind even if I can get thin tomorrow.

Medical authority on weight was typically accepted at face value, even when it contradicted one's experience, or would be difficult or impossible to carry out. It seemed that participants agreed to whatever was recommended for weight loss, but did not necessarily end up implementing the recommendations or losing weight in the long term. In both clinical settings and in the case of employers putting their employee "on a diet", there was the assumption that an individual was able to make food choices and lose weight if they had enough information and willpower to act. In both settings, given that hunger was a source of shame, participants were not in a position to explain constraints on their food choices, or discuss their logic and motivations for current food buying and consumption practices.

(3) Weight in relation to hunger, stress, and social exclusion

Many participants narrated their experience of changing diets, and how this changed collective experiences of weight, and diabetes and high blood pressure in particular:

> The food that we eat affects us negatively now like in the olden days you would not find a twenty-four-year-old that looks like me, when you (pointing to older focus group participant) were twenty-four were you my size? When she was twenty four she wasn't my size, but because of what we eat and what we are exposed at, the food that is at our faces so we end up eating things that are not healthy, and it's affecting us negatively and if you do notice at the earliest days, like twenty years back, when a person has high blood [pressure], you would only find that in older people, but now I don't know what changed, we are unhealthy and you would find the twenty seven year old that has chronic diseases the older one's has, even diabetes.

While detailed analysis of the contexts and extent of hunger is beyond the scope of this article, past and present hunger was integral to participants' perceptions of weight. For example, this participant explicitly ate larger portions on arrival to Cape Town, remembering times when this was impossible and she had shared a bowl with others. She associated this action with weight gain:

> Now I decided to put a big portion for me because I have never enjoyed that, to eat from a plate of my own food … so the choice … that's where I gained weight. I was eating too much

Participants described eating large portions of starch, to have a full stomach in order to work, as well as to fill up to distract from the lack of other foods:

> your stomach must be full so that you can work

> … sometimes the time where there's shortage of food, where you put maybe lot of rice because you just want to fill the stomach because there's, the other things are not there, especially second, third week, fourth week (of the month).

Rather than experiencing chronic hunger, participants described lack of dietary diversity, acute hunger, and missing meals; all of these things could contribute to weight gain, and seemed integral to participants' experiences in Cape Town. Stress was also seen as shared contributor to weight gain:

> ja, here around Masi [neighbourhood] I see the people, most of the people are fat and I think they are eating healthy, but … they are fat, they have a lot of stress you know, it's just like that.

However, participants did not relate this stress to modernity or rapid changes in the food environment. It was almost always related to lack of financial resources, and lack of ability to secure stable employment in Cape Town—to experiences of exclusion and marginality in Cape Town. In fact, some individuals felt that they had gained weight as a result of consuming leftovers and avoiding food waste:

> Sometimes before, I was like at, if I waking up at 1 o'clock and then I, I see that I've got leftovers there, I was making sure that I'm finish that food (laughter) before

> tomorrow morning, even if is 1, 1am, I wake up and eat. But now I try to control myself.

> I don't have way to eat. If I have a, uh left overs in the morning, I just [go] straight to them and eat it.

The intersections of self-control in the context of a changing food environment, lack of a financial safety net, and previous experiences of hunger, all seemed to factor into higher weight, and were also seen as contributors to NCDs. Narratives of belonging and hunger are also integral to experiences of weight, and these seem to connect in important ways to both the South African obesity discourse, as well as threads of the critical social science approaches to the global narratives.

Discussion

In the South African public health literature, positive attributions related to fatness have been described as cultural myths that need to be "dispelled" (Mchiza et al., 2011). Yet casting positive perceptions of fatness as "cultural" seems to conceal insights and nuance: my findings suggest these attributions have value as relevant windows into experiences of food and into how individuals have navigated changing food systems, livelihoods, and economic circumstances. Perceived shifts in both weight and health in the periurban space convey important insights the dynamic relationships between the food environment and health.

Women's experiences and perceptions of overweight resonated with other critiques of the weight discourse. My findings are consonant with McPhail's (2013) work that questions whether "problem populations" are necessarily uneducated about healthy eating practices. Where in some studies, researchers have suggested that low-income communities view weight as a direct proxy for health (Kwan, 2009), in my research women viewed weight in multiple ways, and as representing multiple things. They embraced seemingly contradictory clinical representations, experiences of hunger, and social belonging.

It is striking to acknowledge the universality of body self-criticism: narratives among women in the urban United States resonate in a very low-income community in South Africa (O'Dougherty, Schmitz, Hearst, Covelli, & Kurzer, 2011). O'Dougherty et al's (2011) study of women's self-criticism in reference to the ideal body asks a salient question of how one supports weight loss when someone is overweight. Grønning, Scambler and Tjora (2013) argue that being overweight is not necessarily a practical problem, and that one must consider that weight loss attempts are so often unsuccessful (Grønning, Scambler, & Tjora, 2013). Moreover, stigma and shame surrounding weight actually seems to accentuate health risk (Hunger &

Major, 2015; Hunger et al., 2015). As such the decision of when, where, and how to support weight loss seemed so fraught with unintended consequences that other proxies for health should continue to be explored, in lieu of weight. In a South African context, clinical discourse explicitly casts collective, positive understandings of overweight as incorrect, based in myth, or unscientific. Yet where respondents spoke positively of fatness, they described contexts in which they defined the rules of belonging and connection, where they were insiders. Embracing clinical measures of obesity, and tracking weight with considerable precision, participants identified high blood pressure and diabetes as a concern of increasing urgency in their community. Indeed, they identified many times where fatness was not seen as beautiful. Yet embracing clinical narratives of obesity involved dismissing past values as "wrong," it put women in a difficult position of choosing between clinical and community values. This may present a false dichotomy.

In McPhail's study of weight in Newfoundland and Labrador, she deconstructed stereotypes where researchers "reduce obesity to a problem of modernity—where, at worst, populations are not suited to the conditions thrust upon them" (p300, McPhail, 2013). These stereotypes are apparent in the South African obesity literature, and to some extent had been internalized by participants themselves. For participants who described weight gain and ill-health in the context of rapidly changing urban environments, these experiences could be seen to affirm the narrative of a mismatch between modernity and the nutrition transition. However, this narrative does not pay sufficient attention to the consequences of rural-urban migration, or of poverty and inequity. Experiences of exclusion—to being ill-suited to city life—are hardly inevitable, they are linked to what people are able to *do* and *be* in the city, and to who is able to find belonging and financial security in the city. Moreover, as rural areas of South Africa have also experienced rapid changes in diet (Temple, Steyn, Fourie, & De Villiers, 2011), issues of poverty and NCDs are reproduced and mirrored in rural areas. In this light, the consequences of high blood pressure or diabetes matter far more for the poor. Indeed, the experience of being in "crisis mode" (p9) much of the time (Darroch & Giles, 2016) has massive implications for how one eats. Those whose quality of life suffers most with diagnoses of ill health are those who lack access to quick medical appointments for chronic care, or work flexibility to attend to health concerns.

Norms related to eating and weight are imposed in multiple ways—by media, to clinics and schools and the workplace. Consistent with the framing of biopower, the notion of trying to "control oneself" in order to bring about weight loss was not only shaped by an intrinsic motivation to be

healthy, but also because of processes that judge "certain bodies as morally questionable" (Warin & Gunson, 2013). These experiences thus involve the imposition of power and judgement, and of repeatedly being told to change in clinical settings and in the workplace. The impossibility of "controlling oneself" in the long-term meant that weight-loss represented yet another dimension of exclusion.

Where, fatness seems to convey belonging and inclusion, the dominant clinical messaging around thinness and health seem to simultaneously ignore (by failing to engage with power, hunger, and unemployment), accentuate and perpetuate patterns of exclusion in the city, by framing weight in terms of responsibility. LeBesco (2011) argues that when health is framed as a responsibility, rather than in terms of rights discourse, subjects are deemed to be at fault if seen as unhealthy (LeBesco, 2011). This she describes as the moral weight of obesity, a term that is very similar to Guthman's (2009) argument that obesity has become a disciplining discourse, and Yates-Doerr's "weight of obesity" (Yates-Doerr, 2015). Yates-Doerr's substantial body of work, set in Guatemala, speaks to the possibility that when women expressed an appreciation of fatness as beautiful, they were bypassing weight as a measure of health, "they were understanding health as a quality of the body that could not be directly assessed through body size" (p92)(Yates-Doerr, 2015). Here, I would suggest that commonality in positive images of fatness between Guatamala and South Africa should not be seen as commonality between "cultures." Rather, it speaks to common qualities of historical food environments (which may have very different actual foods), and to the rapid changes that have occurred in both spaces during the past thirty years.

Guthman (2009) suggests public health's "unabated message that something must be done" (about obesity) (p1130) fails to engage with many of the unknowns and tends to exalt certain ways of being. Resonant with the South African case, Guthman writes that a disproportionate focus on obesity leads to the "overdramatization" of some things at the expense of others, constraining the possible solutions that could be offered to the underlying problems (Guthman, 2013).

In the South African context structural violence (Cousins, 2015; Farmer, Nizeye, Stulac, & Keshavjee, 2006) becomes embodied not only in shaping who gains weight and who becomes ill in the urban context, but also in how perceptions and measurement of weight in relation to health perpetuate existing patterns of power. These unintended consequences should be explicitly considered in the NCD discourse in low-and-middle-income countries. That is, the value of a particular discourse must be filtered through the lens of possible social consequence: whether it perpetuates or destabilizes socioeconomic inequality. After all, socioeconomic inequality is

an underlying determinant of who gets ill, and how their quality of life is affected by their illness (Marmot, 2008). In the South African case, when considered in relation to broader patterns of inequity, the overlap of obesity and hunger in urban peripheries and informal areas of the city offers one lens on the health implications of urban poverty.

Conclusion

As other studies have highlighted in settings around the world, making linear associations between diet, obesity, and NCDs in LMIC should be scrutinized in light of their potential for unintended negative consequences in the form of overly simplistic health policy. This scrutiny does not mean dismissing the significant value of rigorous studies of incidence of NCDs and food consumption. Rather, it suggests the need to find ways to engage deeply with poverty and inequity as causes of NCDs that may bypass familiar, linear, associations. As such, there is a pressing need for research and practice that engages multiple players around the subject of NCDs, including multiple levels of governance (local, provincial, national), multiple stakeholders (civil society, government, research) with various expertise (e.g., health, housing, transportation, social development, etc.) Research that focuses on human rights, capabilities or dignity as frameworks and motivations for intervention may respond meaningfully to NCD risk while avoiding unintended consequences.

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