The weight of words: Discursive constructions of health in weight-neutral peer-reviewed journal articles

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Weight-neutral approaches to health, like the Health at Every Size® (HAES®) approach arose in response to emerging evidence showing the negative health consequences of weight-focused approaches through the effects of stigma and marginalization in many settings, including healthcare. While the discourses of dominant 'weight-normative' approaches are well-researched and described, little is known about how language and discourse is creating certain 'truths' about weight-neutral approaches. The aim of this study was to explore how academic discourses create truths about weight-neutral approaches to health. A discourse analysis of 63 academic journal articles was conducted. We found that the language used in academic literature is creating confusing and contradictory messages about weight and weight-neutral approaches to health (like the HAES® approach) through: (i) the continued use of stigmatising and normative labels like 'overweight' and 'obese', (ii) paradoxical language like 'flexible restraint', and (iii) a focus on individual responsibility and blame for health and weight without acknowledgement of broader societal and systemic factors. More research is needed to characterize weight-neutral approaches and develop a clearer framework for researchers wishing to engage with the weight-neutral paradigm of health.

Keywords: weight, weight-neutral approach, Health At Every Size®, HAES®, discourse, discourse analysis, social constructionism, weight stigma

Introduction

Language plays an important role in constructing notions of weight and health. While discourses about weight as an arbiter of health have been extensively critiqued, the way in which emerging weight-neutral approaches are written about in peer-reviewed literature – approaches that do not focus on weight loss as a health outcome – have remained largely uncharacterised (Bacon & Aphramor, 2011; Rothblum, 2018; Simpson et al., 2019; Tylka et al., 2014). Grounded in a constructivist ontological position, which understands "reality [as]

constructed rather than 'set in stone'", the discourse analysis conducted in this study aims to explore academic discourses surrounding weight-neutral approaches to health (e.g., the Health At Every Size® or HAES® model), by observing how they align with intended weight-neutral principles (Broom & Willis, 2007, p. 25). In doing so, it contributes to our understanding of the perceptions of weight-related paradigms in research and health.

The ways in which medical experts and researchers write and practice has profound effects on the way individuals are treated in healthcare and broader society (Glenister et al., 2018; Gonzalez Johansen, 2020; Meadows & Daníelsdóttir, 2016; Tomiyama et al., 2018; Tylka et al., 2014; Warin, 2015). Language is important in this space because it has the power to either reinforce the stigmatisation of people living with larger bodies, or more positively and constructively disrupt such processes (Glenister et al., 2018; Gonzalez Johansen, 2020). Othering results in the different treatment of so-called 'obese' bodies in comparison to thin bodies (Meadows & Daníelsdóttir, 2016; Warin, 2015). The biomedical sciences, like other research disciplines, are inadvertently dominated by hegemonic assumptions and views which can become embedded in scientific discourse and practice, affecting the way that people are treated in healthcare settings (Wall et al., 2015).

The 'obesity epidemic'

The so-called 'obesity epidemic' has come under intense scrutiny in recent times (O'Hara & Taylor, 2014; William & Annandale, 2020). Increasingly, body weight around the world is widely presented by public health and medical bodies as a threat to individual and societal health (O'Hara & Taylor, 2014; William & Annandale, 2020). The cultural idealisation of the thin body, otherwise known as the thin ideal, is not only considered aesthetically important but also a health imperative, with 'obese' and 'overweight' bodies considered socially and medically problematic (O'Hara & Taylor, 2014). The World Health Organisation describes

‘obesity’ and ‘overweight’ as “abnormal or excessive amounts of fat which may lead to impaired health”, with Body Mass Index (BMI) most commonly used as a measure, despite concerns about its true reflection of health status (World Health Organization, 2005). Some have observed that ‘fat as fatal’ has come to be widely accepted, in accordance with a ‘weight-normative’ approach to health (Bombak et al., 2019).

The weight-normative approach to health

The weight-normative (or weight-centric) approach to health focuses on weight as a major determinant of health, and weight-loss as a key way to manage illnesses (Tylka et al., 2014). This approach is the dominant way that weight is considered today and implicates ‘lifestyle choices’ in weight status and ill health (Tylka et al., 2014). While this perspective is widely held in a variety of settings, the empirical evidence supporting the efficacy of centring weight in improving health and preventing ‘obesity’ is contested (Bombak et al., 2019; Rothblum, 2018). Some evidence even points towards weight loss contributing to physical and psychological problems, in the form of disordered eating, depression, anxiety and weight-cycling, to name a few (Bombak et al., 2019; Rothblum, 2018).

According to the weight-normative approach, ‘obesity’ is assumed to be a potent cause of disease, causing physiological dysregulation by impacting biological processes (Van Gaal et al., 2006). ‘Obesity’, however, often coexists with other risk factors, and while correlated with many chronic diseases, causal links are difficult to establish and have often been presumed to exist even in cases of association (Franks & Atabaki-Pasdar, 2017). Recent genomic studies do show causal links between ‘obesity’ and conditions like stroke, cardiovascular disease and kidney disease (Censin et al., 2019; Hyppönen et al., 2019). Yet, some ‘obese’ people are metabolically healthy, and ‘overweight’ has also been found to be protective against chronic diseases and mortality risk in some populations, in what is

described as the ‘obesity paradox’ (Curtis et al., 2005; Franks & Atabaki-Pasdar, 2017; Kalantar-Zadeh et al., 2010; Landbo et al., 1999; Oreopoulos et al., 2008; Romero-Corral et al., 2006). There is a significant body of evidence demonstrating that weight-loss interventions are not sustainable or associated with long-term improvements in morbidity and mortality (Bacon & Aphramor, 2011; Fildes et al., 2015; Hall & Kahan, 2018). Research suggests that factors like stigma, poor mental health and disordered eating associated with weight-centric interventions at least partly mediate, through allostatic load, the relationship between being fat and ill health, heralding the need for an alternative approach (Daly et al., 2019; Seeman et al., 2001).

Weight-neutral approaches to health

Weight-neutral (or weight-inclusive) approaches to health de-centre weight from health, and emerged in response to the negative physical and mental health consequences of weight-normative care and broader weight discrimination (Tylka et al., 2014). These approaches do not centre specific outcomes and are, instead, based on the principles that health and wellbeing are not fixed, and that it is important for people to have access to equitable and non-stigmatising healthcare (Tylka et al., 2014). Championed by researchers like Lindo Bacon, and a trademark of the organisation, Association for Size Diversity and Health (ASDAH), the HAES® approach is one of the most well-described weight-inclusive approaches, shifting focus away from weight and towards health promoting behaviours for everyone (Bacon, 2010; Bacon & Aphramor, 2011; Association for Size Diversity and Health, 2020). The HAES® model, like other weight-inclusive paradigms, is based on principles of non-maleficence, appreciation for the natural variety of bodies, evidence-based care, autonomy, and social justice (Childress & Beauchamp, 2001; Tylka et al., 2014).

While weight-inclusive approaches to health, such as the HAES® approach, provide an alternative to the traditional weight-normative paradigm, some have pointed out limitations of both the theoretical basis as well as the practical applications of such an approach (Brady et al., 2013; Gibson, 2021; Monaghan et al., 2013; Ulian et al., 2018). Some, like Brady et al. (2013), Monaghan et al. (2013) and more recently, Gibson (2021), assert that weight-neutral interventions are not immune to healthism, which is the system in which health is considered a commodity and not only a personal imperative, but also a moral virtue (Brady et al., 2013; Gibson, 2021; Monaghan et al., 2013). They posit that the HAES® approach has the potential to shift the focus on health from one prescriptive approach, with a focus on weight-loss, to another prescriptive approach, with a focus on behaviour (Brady et al., 2013; Gibson, 2021; Monaghan et al., 2013). Others argue that the HAES® approach does not effectively address weight stigma or other social factors (Ulian et al., 2018). As an emerging framework, there are many aspects of HAES®-based and similar approaches that are yet to be explored.

Discourses of weight

Discourses of weight are important to our understandings of how we construct health (Lessa, 2005). 'Discourse' refers to how we think, talk, and write about the world (Lessa, 2005). One theoretical lens through which to understand how people come to think, talk and write about the world is 'social constructionism', a social theory which posits that reality is a joint construction of social and interpersonal influences (Berger & Luckmann, 1966; 1991). While the theory of social constructionism is not synonymous with understanding discourses, it is useful to understanding how "social patterning" as depicted in text and talk interprets what is 'healthy' and 'unhealthy' (Broom & Willis, 2007, p. 25). In the health context, social constructionism proposes that truths about health and illness can be subjective and expressed

in multiple ways, as opposed to the biomedical model of health, which largely holds facts to be universal and objective (Conrad & Barker, 2010).

Research analysing discourses surrounding weight is critical of the weight-normative paradigm and the language surrounding 'obesity' (McPhail & Bombak, 2015; Monson et al., 2016; O'Hara et al., 2015; Setchell et al., 2016). Researchers argue that the social construction of 'obesity' is evident in the varying ways in which 'fatness' continues to be perceived across time and other social domains like gender, with women often being scrutinised far more for their weight than men (Forth, 2013). In both the academic and social sphere, there is ongoing debate about the labels for 'people living in larger bodies', as language has the ability to reinforce the stigmatisation of 'fat' people or disrupt it (Glenister et al., 2018; Gonzalez Johansen, 2020). In their study about perception of weight-related language, Puhl et al. (2013) found that participants considered the terms, 'obese', 'morbidly obese' and 'fat' to be the most stigmatising terms describing weight (Puhl et al., 2013). Despite this finding, 'fat' is increasingly being adopted as the preferred neutral term, especially in weight activism and weight-neutral research (Khan, 2019; Meadows & Daníelsdóttir, 2016; Papas, 2020). Referring to 'obesity' as a disease is also highly contested, with some arguing that this exacerbates discrimination, and others proposing that a disease status will alleviate some personal responsibility and attract more research funding (Kyle et al., 2016; Rosen, 2014).

Weight-normative discourses of health

There is a significant body of research exploring weight-normative discourses of health, both descriptive and critical, focusing on weight loss as an arbiter of health (Blackburn & Stathi 2019; Brown-Bowers et al., 2017; Ferry & Richards, 2015; Harper & Rail, 2012; Knutsen et al., 2013; Komduur & Te Molder, 2014; Monson et al., 2016; O'Hara et al., 2015; Pesch et al., 2019). Weight-normative discourses include discussions of personal responsibility for weight

and health, with ‘obesity’ and ‘overweight’ often considered to be the result of personally failing to maintain a ‘healthy lifestyle’ (Blackburn & Stathi 2019; Brown-Bowers et al., 2017; Ferry & Richards, 2015; Harper & Rail, 2012; Knutsen et al., 2013; Komduur & Te Molder, 2014; Monson et al., 2016; O'Hara et al., 2015; Pesch et al., 2019). Researchers have found that fat people are not only stigmatised for their physical appearance but also based on the negative personality traits they are assumed to have because of their appearance, an assignment referred to as ‘double deviance’ (Malterud & Ulriksen 2011). ‘Obesity’ is also highly pathologized in weight-normative literature and thinness is prized as the ideal and marker of good health (Abou-Rizk & Rail 2014; Blackburn & Stathi, 2019). Additionally, unequal power dynamics between the ‘medical expert’ and the ‘ideal patient’ are suggested to play a role in constructing weight discourses (Darroch & Giles, 2016; Glenn et al., 2013; O'Hara et al., 2015).

Discourses of emerging weight-neutral approaches

Unlike dominant weight-normative discourses of health, discourses surrounding newly emerging weight-neutral approaches remain largely unexplored. Two recent studies, by Cain and Donaghue (2018) and Rich et al. (2020), have characterised weight-neutral discourses by exploring how women and girls engage with HAES®- based messaging (Cain & Donaghue, 2018; Rich et al., 2020). In their exploration of how HAES®-based biopedagogical messaging was received by girls at school – a form of teaching regarding how to conduct and regulate bodies in the interest of health and life – Rich et al. (2020) found that the girls reproduced dominant weight-centric approaches while also engaging with HAES®-based principles (Rich et al., 2020; Setiawan & Anwar, 2021; Wright, 2009). Cain and Donaghue (2018) similarly found that the participating women held dominant views equating fatness with ill-health while also expressing that de-centring weight from conversations of health would help ameliorate weight stigma (Cain & Donaghue, 2018).

The weight-neutral approach to health has not been studied to the same extent as the weight normative approach. The studies discussed above, by Cain and Donaghue (2018) and Rich et al. (2020), both focus on the engagement of individuals with weight-neutral paradigms, suggesting a continued focus on personal responsibility in the culmination of health status, with little exploration of how medical professionals, health institutions and socioecological factors contribute. As a relatively new approach gaining notable traction based on scientific evidence and social activism, it is important to examine the content and clarity of the language used in weight-neutral messaging and how individuals, groups and institutions contribute to discourse (Bacon, 2016; Cadena-Schlam & López-Guimerà, 2014; Nutter et al., 2016; Tylka et al., 2014; Ulian et al., 2015). Given that weight discourses are strongly influenced by the way medical experts and researchers write about and practice weight-related healthcare, there is a paucity of research characterising how language is used to construct weight-neutral approaches (like the HAES® approach) in the medical and academic literature.

Aim and research question

This study aims to investigate the language used to construct weight-neutral approaches (like the HAES® approach) in the peer-reviewed academic literature. It asks: (1) how does language create truths and reinforce beliefs about health in weight-neutral discourses? (2) How do the messages found in these discourses align with the intended weight-neutral principles of approaches, like the HAES® model?

Method

This study, exploring discourses of weight-neutral approaches (like the HAES® approach), is grounded in constructivism, an epistemological perspective which posits that there is no

singular truth but that truths are a subjective culmination of our experiences and interactions with the world (Broom & Willis, 2007; Leeds-Hurwitz, 2009). It involves a discourse analysis of documents – peer-reviewed academic articles, in this case – that were systematically collected from selected databases, coded and analysed based on the existing discourse analysis framework outlined by Gee (2014). Discourses were developed and interpreted by the authors, in keeping with a constructivist paradigm (Broom & Willis, 2007). Gee's framework for conducting a discourse analysis was chosen for this study for his central argument that "whenever we speak or write, we always and simultaneously construct or build on ... six areas of 'reality'" (Gee, 2014, p. 12). Discourses about weight-neutral approaches, such as the HAES® approach, are thus examined for their constructions of reality. Gee (2014) names these six areas of reality as: **significance, practices (activities), identities, relationships, the distribution of social goods, connections, and sign systems/knowledge** (Gee, 2014). Although this framework outlined by Gee (2014) is not specifically grounded in the constructivist paradigm, it contains crucial elements of it (Gee, 2014).

'Discourse' can be described as the way we think and talk about the world we live in (Lessa, 2005). A constructivist paradigm understands discourses as important to our creation of knowledge and truths, including those of health and illness (Broom & Willis, 2007; Conrad & Barker, 2010). Discourse analysis is an umbrella term for several different but related approaches (Yazdannik et al., 2017), some of which adopt a constructivist paradigm (Almeida, 2004; Kaminer & Dixon, 1995; Van Dijk, 1997; Woo & Reeves, 2007). Other discourse analytic approaches, such as linguistic discourse analysis and Foucauldian and / or poststructural discourse analysis focus on syntax and language structure or webs of power, knowledge and 'regimes of truths' as constituted in discourses, respectively (Diaz-Bone et al., 2008; Yazdannik et al., 2017). By contrast, Gee's (2014) method of discourse analysis focuses on the construction of activities, relationships and identities in text and talk (Gee,

2014). While discourse analysis is by no means synonymous with, or the only method employed in the context of a constructivist paradigm, it is one such method (Broom & Willis, 2007). Discourse analysis was employed in this study to analyse the construction of weight-neutral approaches in academic literature using the framework outlined by Gee (2014). This framework is useful for analysing how language builds reality in academic discourses of weight neutral approaches, which is in line with the constructivist paradigm employed here (Gee, 2014). Discourses were developed and interpreted by the authors, in keeping with a constructivist paradigmatic lens (Broom & Willis, 2007).

This study drew on several previous studies that employ discourse analysis using a constructivist paradigm (Almeida, 2004; Kaminer & Dixon, 1995; Van Dijk, 1997; Woo & Reeves, 2007). Kaminer and Dixon (2019) explore discourses of how men talked about drinking by conducting a discourse analysis in the context of a constructivist paradigm (Kaminer & Dixon 1995). Woo and Reeves (2007) outline the benefits of conducting a discourse analysis with a social constructivist worldview in studying students' interactions with internet-based learning (Woo & Reeves 2007). Exploring the discourses of students' perception of how competent their own communication skills were, Almeida (2004) used the discourse analysis framework outlined by Van Dijk (1997), examining three aspects of discourse - (1) language use, (2) the communication of beliefs or cognitions, and (3) social interaction (Almeida, 2004; Van Dijk, 1997). The discourse analysis framework outlined by Gee (2014) used in this study encapsulate aspects of Van Dijk's (1997) framework in its 'six areas of reality' (Gee, 2014; Van Dijk, 1997). The data analysis method was also drawn from discourse analyses and mixed-method studies conducted by Glenn at al. (2013), Setchell et al. (2016) and Blackburn and Stathi (2019; Glenn et al., 2013; Setchell et al., 2016).

Data collection

Academic literature pertaining to weight-neutral approaches to health (like the HAES® model) were collected through a systematic search of three online scholarly databases from February 2021, including PubMed® (the biomedical and life sciences search engine), PsychINFO (an international psychology database), and Academic Search Complete (a multidisciplinary database). Databases were chosen for their broad coverage of various relevant academic disciplines. The key words searched included "weight-neutral", "weight-inclusive" and "health at every size", using the Boolean operator, 'OR'. Full-text articles published in English from 2003 onwards were selected, as this is when the HAES® approach first emerged in the literature. Articles published prior to 2003, those written in languages other than English, and articles unavailable to read in full text, were excluded. Existing papers were further sorted by their titles and abstracts to only select studies pertaining to weight-neutral approaches. A Google search was conducted using the search strategy above, capturing any additional journal articles from the first ten pages of results. The flow diagram in Figure 1 presents the process of data collection.

Coding and analysis

For primary research articles, the focus was particularly on the aims, findings and implications of the studies. For review articles, the texts were analysed as a whole, with a focus on assertions made about weight-neutral approaches. Open coding, which involves interpreting larger pieces of text or entire articles, was employed. Using a table adapted from the framework outlined by Gee (2014, pp. 31-78; sample in Appendix I), texts were read initially to make note of overall tone (Gee, 2014, pp. 31-78). Next, specific words and phrases were analysed for the six areas of reality, as described by Gee (2014): how language made particular aspects of weight and weight-neutral approaches **significant** or **insignificant**; conveyed messages about the **identity** of fat people or people who engage in weight-neutral

health behaviours; reinforced weight- and health-based **practices**; **social goods**, as in, what assertions were about what is 'good' or 'normal' in health; indicated **relationships** and power dynamic that exist between fat people, health professionals and the wider population; **privileged** or **deprivileged 'sign systems'** or paradigms; and, **drew links** between weight, weight-neutral approaches and other concepts or characteristics (Gee, 2014, pp. 31- 47). Important language tools used to create such meanings, also outlined by Gee (2014), were sought during analysis, including 'social languages' such as vernacular or technical language, and 'situated meaning', where language can mean different things in different contexts (Gee, 2014, pp. 47 - 78). While these language tools were not specifically coded for, they were used as a guide to collecting data pertaining to the 'six areas of reality'. Codes were grouped into discursive themes. Coding and synthesis were simultaneous and iterative processes.

Results

Through data analysis, we developed and interpreted several discursive patterns surrounding weight-neutral approaches (such as the HAES® model) in the academic literature, particularly with regards to constructions of weight and health, weight-neutral and weight-normative approaches, and fat identities. The most striking finding, however, traversing all discursive patterns, was the presence of contradictions in the way weight-neutral approaches were constructed. These contradictions are emphasised in the major discursive themes identified in the data: (i) in the language surrounding 'overweight' and 'obesity'; (ii) in the paradoxical language of 'flexible restraint'; and (iii) in language that centred the individual rather than the social.

'Obesity' and 'overweight' in the HAES® context

"Obesity" and "overweight" were widely used as descriptors in the majority of the HAES®-

centred literature, despite the intended weight-neutral principles of the HAES® approach (Bégin et al., 2019; Berman et al., 2016; Borkoles et al., 2016; Brevers et al., 2017; Carroll et al., 2007; Gagnon-Girouard et al., 2010; Leblanc et al., 2012; Parsons, 2016; Penney & Kirk, 2015; Provencher et al., 2009; Ulian et al., 2018). Many HAES®-based studies use these words in the title of their papers, such as, *"Eating Pleasure in a Sample of Obese Brazilian Women: A Qualitative Report of an Interdisciplinary Intervention Based on the Health at Every Size Approach*" by Sabatini et al. (2019, p. 1470), and "*Effects of a new intervention based on the Health at Every Size approach for the management of obesity: The "Health and Wellness in Obesity" study*" by Ulian et al. (2018, p. 1; Bégin et al., 2019; Berman et al., 2016; Borkoles et al., 2016; Brevers et al., 2017; Carroll et al., 2007; Gagnon-Girouard et al., 2010; Leblanc et al., 2012; Parsons, 2016; Penney & Kirk, 2015; Provencher et al., 2009; Sabatini et al., 2019, p. 1470). HAES®-based literature was even found published in journals such as 'Obesity' (Provencher et al., 2007). The use of language in the titles of these papers and the journals they are published in constructs weight to be a **significant** aspect of and **connected** to the HAES® approach (Gee, 2014). It sets the tone for the language used in the rest of the study and indicated the prevailing weight-normative **sign system** in the academic community, in that it privileges the weight-normative claim to knowledge (Gee, 2014).

These finding indicate contradictions between the principles of the HAES® approach and the way that weight-neutral research is conducted (Association for Size Diversity and Health, 2020; Bacon, 2010). The term 'overweight' is said to uphold normative standards of weight, in which a 'correct' or desirable weight exist, and weighing above normative standards is **denied the social good** of being considered unhealthy by default (Tylka et al., 2014). The history of the word, 'obese', deriving from the Latin '*obedere*', meaning 'to overeat', impacts common understanding today (Collins Dictionary, 2021). This language marks fat people as having 'deviant' **identities** by constructing fatness as a medical problem

and a personal responsibility, steering responsibility away from the systemic sources of ill health, which has been suggested to have the effect of stigmatising, marginalising and pathologizing fat people, and is not in line with the weight-neutral principles of the HAES® model (Association for Size Diversity and Health, 2020; Bacon, 2010; Bacon & Aphramor, 2011; Evans et al., 2008; van Amsterdam, 2013). While this use of language signals the dominant weight-normative stance of the academic community, it may also indicate an attempt to make the HAES® model more accessible to the wider health community or reconcile the two opposing weight paradigms.

Many purportedly HAES®-centred studies use language that may have stigmatising effects. Phrases such as *"Overweight and obesity are a serious public health issue"* and *"obesity (has) direct and indirect costs, and... economic burden"*, used in a study looking at the outcomes of a HAES®-based intervention in Quebec may have the effect of constructing **the identities** of fat people as 'bad' or deviant members of society (Begin et al., 2019, pp. 248-249). Similarly, in their paper, Simpson et al (2019, p. 1268) write, "*obesity is a major public health concern*" and "*given the negative health consequences of this condition, its prevention is an admirable goal*", implying that being fat is a problem and solving this problem is the morally suitable option. Most often, 'obesity' and 'overweight' were used in the purportedly HAES®-based literature without an accompanying discussion of the stigma and social meanings attached to them, demonstrating the **privileging of the biomedical, individual-centric sign system** attributable to the weight-normative approach to health. Borkoles et al. (2016, p. 53), for example, use the descriptive phrase *"morbidly obese females"* for their population of interest for a non-dieting intervention with a HAES® framework. This description not only strongly **connects** weight with ill-health or 'morbidity' but is also associated with greater societal disapproval and **denial of the social good** of being

considered ‘moral’ (Meadows & Daníelsdóttir, 2016). Some authors, such as Sainsbury and Hay (2014, p. 1), are overt in their criticism of the HAES® model and fat individuals, writing:

> *‘When I (AS) was a child, my grandmother used to say “Don’t pull an ugly face, because if the wind changes, your face will become stuck like that” … I say, “Don’t eat an ugly diet or let yourself stay fat, because if the wind changes you may become stuck with permanent obesity.”’*

This language presents being fat as severely undesirable and creates a deviant negative **identity** of ‘obesity’ (Goffman, 1986; Puhl & Heuer, 2010).

Other authors were found to deliberately use alternative terms for ‘obesity’ and ‘overweight’, in an attempt to acknowledge the importance of language in stigmatising fat individuals. Mensinger et al. (2016, p. 365), for example, use “obesity” and “overweight” in quotations marks, perhaps as recognition of what these words can signal. However, their use of “high BMI” without quotations marks, like several other authors, does imply a normative standard of ‘normal’ or ‘correct’ weight (Cloutier-Bergeron et al., 2019, p. 2; Dugmore et al., 2020, p. 53; Mensinger et al., 2016, p. 364; Parsons, 2016, p. 21; Penney & Kirk, 2015, p. e40; Sainsbury & Hay, 2014, p. 3). Other alternatives found in the literature include “heavy person” (Robison, 2005, p. 13), “high body mass index” (Watkins et al., 2014, p. 187), “larger-bodied clients” (Weiss, 2015, p. 644), and “fatness” (Cloutier-Bergeron et al., 2019, p. 2). Most of these phrases, apart from “fatness”, indicate some normative standard of weight, at odds with HAES®-based principle. These terms still **deny fatness the social good** of being ‘normal’ or ‘appropriate’, but attempt to **attribute a more neutral, less stigmatising fat identity**. Use of ‘people-first’ language like “individuals living with obesity” was also noteworthy, and while attempting to humanise fat people, also frames ‘obesity’ as a chronic illness (Meadows & Daníelsdóttir, 2016; Penney & Kirk, 2015, p. e38). Interestingly, in an earlier text, *“Size acceptance and intuitive eating improve health for*

obese, female chronic dieters" by Bacon et al. (2005), a key contributor to the HAES® approach, uses the term 'obese' extensively in the text without use of quotation marks (Bacon et al., 2005). In later text by the same author, however, there is a shift in language, such as the use the term 'weight science' by Bacon and Aphramor (2011) instead of 'obesity research', attributing neutrality to weight and constructing fatness as having **little significance** for health and rejecting the stigmatising **identity** of fat people often employed in mainstream and weight-normative (Bacon & Aphramor, 2011, p. 1). Chrisler (2018, p. 38) plainly states, "I avoid the use of the term 'obesity' in class after I inform students that it reflects the medicalization of body weight" (Chrisler, 2018, p. 38). It has been reflected that there is no simple answer, and the key to beneficent and non-maleficent weight discourse lies in respect, nuance, evidence and consideration of the wishes of those who are being spoken to and about (Meadows & Daníelsdóttir, 2016). Despite these findings, weight-normative language is commonly used, even within the HAES®-based literature, presenting a stark contradiction to the intended principles of weight-neutral approaches.

'Flexible Restraint': Use of paradoxical language and oxymorons

'Flexible restraint' was a phrase of particular interest in this analysis (Leblanc et al.; 2012; Provencher et al., 2007; Provencher et al., 2009). Defined by Westenhoefer et al (2013, p. 69) as "a more graduated approach to losing weight in which "fattening" foods are permitted in limited quantities rather than avoided entirely, leading to more consistent and sustainable dieting", "flexible restraint" can be understood as an oxymoronic concept, in that 'flexible' expresses freedom of choice, personalised health and a gentle approach to health, in line with the HAES® model, whereas 'restraint' indicates rigidity and restriction that is characteristic of normative, weight-centric approaches to health such as strict dieting and exercise regimes (Provencher et al., 2009, p. 1856; Westenhoefer, 2013, p. 69). The use of these words

together may be an attempt to award the disciplined and rigid practices of dieting and exercise regimes the **social good** of being considered 'gentle', 'nurturing' or 'easy-going'. In some nominally HAES®-centred studies, 'flexible restraint' in presented as a HAES®-based approach, as well as a pathway to weight loss (Leblanc et al., 2012; Provencher et al., 2007; Provencher et al., 2009). Provencher et al. (2007), for example, consider 'flexible restraint' as a positive outcome in the eating behaviour of the group in their study randomised to a purportedly HAES®-centred intervention, writing that "*a significant increase in flexible restraint was observed in the HAES group*" and "*flexible restraint is an eating behavior that should be enhanced for long-term weight management*". (Provencher et al., 2007, p. 964). This use of language attempts to highlight the purported **significance,** or importance, of weight management as an outcome of health interventions, legitimises the **practice** of dieting and regimented exercise, and **connects** good health with discipline and restraint. The term 'flexible restraint' is a striking example of the struggle to reconcile traditional weight-centred approaches with weight-neutral ones.

While HAES® principles specifically highlight the importance of moving away from a weight-loss focus, a significant proportion of the academic work adopting a HAES® framework continues to focus on weight, shape and size. This is demonstrated in articles like Parsons' (2016, p. 21) work, titled *"Moving towards a weight-neutral approach to obesity management"*. The term 'obesity management' is paradoxical in a weight-neutral context, as the focus of these approaches is to shift focus away from weight-loss as a direct (rather than incidental) health outcome. Cloutier-Bergeron et al. (2019, p. 1) also use paradoxical language by suggesting that *"(HAES®) interventions have been increasingly recognized as a sustainable strategy in obesity management"* and Carrol et al. (2007, p. 125) describe the HAES® approach as a "*paradigm for obesity treatment"* (Carroll et al., 2007, p. 125). This contradictory language either indicates a misunderstanding of the original purpose of

HAES®, unfamiliarity with the HAES® model or a desire to **integrate the practices** of opposing weight-focused and weight-neutral approaches to health. It is also important and plausible to consider that supposedly HAES®-centred approaches discussed here are based in weight-normative principles because the biomedical community is deliberately co-opting the language of HAES®-centred and other weight-neutral and size-inclusive approaches (Rice & Collins, 2020). This could be considered an example of **'intertextuality'**, which Gee (2014) describes as the borrowing of terms by texts, the 'HAES®-approach' in this case, from other textual sources of potentially different **social languages** (Gee, 2014). There are numerous examples of commercial and medical entities adopting the language of wellness and weight-neutral principles because they have gained significant traction and subscribership in recent years (Rice & Collins, 2020). In fact, some articles analysed here seem to indicate just this, with Berman et al. (2016, p. 466) writing, "*although weight loss was not a focus or goal of the Accept Yourself! intervention, we were interested in whether participants maintained their weight during and after the intervention*". The language used in this statement suggests an attempt at using purportedly weight-neutral approach for the purpose of a weight-centric goal (Berman et al., 2016, p. 466; Liebman, 2005).

Individual-centric language

The HAES® principles, particularly those of 'health enhancement" and "respectful care", attempt to cultivate *"an understanding that socio-economic status, race, gender, sexual orientation, age, and other identities impact weight stigma, and support environments that address these inequities"* (Association for Size Diversity and Health, 2020). In addition to de-centring weight in health, the HAES® model also promotes greater awareness of the socio-ecological determinants of health, shifting the focus away from individual blame and responsibility (Association for Size Diversity and Health, 2020). These themes, however, were

not reflected in the weight-neutral literature, which almost exclusively used language that highlighted the **significance** of individual responsibility in health and weight. LeBlanc et al. (2012, p. 14) write, "*the HAES approach… emphasizes the importance of healthy lifestyle habits, intuitive eating by recognition of internal cues of hunger and satiety, and healthy attitudes and behaviors towards food intake"*. Carrol et al. (2007, p. 133) use the description, *"sedentary mainly overweight adults"*, a choice of phrase that **creates a fat identity** that is individually to blame for a 'sedentary' lifestyle and lends itself to the 'lazy' stereotype (Carroll et al., 2007, p. 133). In these instances, language **creates a connection** between individual lifestyle choices and 'ill' health outcomes, which has been interpreted by some researchers as a form of blame (Galvin, 2002; Dickinson et al., 2017). The use of individualistic language may indicate that the authors are operating under a weight-normative **sign-system** at odds with the principles and objectives of the HAES® model and other weight-neutral approaches (Association for Size Diversity and Health, 2020). Others have also criticised the focus on individual action as a source of ill-health, like Aphramor (2010), positing that it "detract(s) attention from the wider social and material determinants of morbidity and mortality" (Aphramor, 2010, p. 7).

While individual-centric language is most common in the HAES®-based literature, there is an emerging voice that is true to HAES® principles and highlights the importance of considering the socio-ecological context of health (Chrisler & Barney, 2017; Chrisler, 2018; Mensinger et al., 2016; Robison et al., 2007; Sabatini et al., 2019; Simpson et al., 2019). Robison et al. (2007, p. 187), for example, write, "*HAES acknowledges the prevalence of sedentary living in U.S. society as largely a cultural phenomenon that cannot be significantly impacted without addressing cultural barriers*", using language that acknowledges the context within which weight and health exists, **highlights the significance** of sociocultural factors, and partly shifts the focus away from individual responsibility in doing so.

Acknowledging the socio-cultural complexities of weight and that placing all the blame on the individual would be irresponsible, Sabatini et al. (2019, p. 1479) write, "*motivations for eating are complex and come from the individuals' interactions with global contexts (eg, political, historical, cultural) and local contexts (eg, home, family)*" and "*it would be negligent to devalue these feeling by using obesity management approaches that do not recognize these complexities*". Here, the authors attempt to discredit the individual-centric view of health as 'negligent' and overly simplistic. Others, like Mensinger et al. (2016, p. 32) use language to highlight the **significance of weight stigma**, describing it as "*a significant socio-structural barrier to reducing health disparities and improving quality of life for higher weight individuals"* (Robison et al., 2007; Simpson et al., 2019). In doing so, they also present the socio-ecological view of considering health and weight as the **more 'valuable' and 'beneficent' way** forward. Others, like Chrisler and Barney (2017) highlight the **significance** of sizeism, which is the discrimination based size on weight, as a major structural barrier to good-health (Chrisler & Barney, 2017; Chrisler, 2018). Chrisler (2018, p. 34) argues that *"it is important to include sizeism among the other social oppressions that harm people's health"*. While such language urges the field of weight sciences away from an individual focus, language use in weight-neutral literature still points towards a tendency towards a **sign system** in which individuals are personally responsible for their health, weight and choices, contradictory to weight-neutral principles.

Discussion

The most significant finding of this discourse analysis was the use of contradictory language to describe weight and weight-neutral approaches, resulting in a confusing construction of the paradigm. The weight-neutral peer-reviewed literature used terms such as 'obesity' and 'overweight' to talk about weight despite such language not being aligned with weight

neutral values, and the stigma and meanings attached to them (Association for Size Diversity and Health, 2020; Bacon, 2010; Bacon & Aphramor, 2011; Provencher et al., 2007; Sabatini et al., 2019; Ulian et al., 2018). While some attempts were made to make the descriptors more nuanced and neutral, through the use of quotation marks and 'person-first' language, much of the phrasing still promoted normative standards of weight. The use of paradoxical language, like the oxymoron 'flexible restraint', demonstrated an attempt to reconcile two discordant views: that good health is personal and flexible, as opposed to good health requiring restraint and control. Similarly, many authors employed individualising language, focusing on individual choices and behaviours. This language can have the effect of assigning blame to individuals and is incongruous with HAES® principles which encourage a focus on social, cultural and ecological determinants of health and weight (Association for Size Diversity and Health, 2020; Bacon, 2010). Overall, such language presents a polarized and confusing construction of weight-neutral approaches (such as HAES®), posing the question: are the original HAES® principles being used in an unintended way, or is this an effort to integrate seemingly opposing approaches to health?

Many have called for the reconciliation of weight-normative and weight-neutral paradigms of health in order to establish realistic and effective health practices (Lekkas & Stankov, 2014; Penney & Kirk, 2015; Willer et al., 2019). Penney and Kirk (2015) propose that an unending debate does little to unite us in achieving better health and wellness. Brown (2009, p. 145) suggests that the two approaches are not as dissimilar as they seem, in that "both traditional and HAES® approaches recommend dietary changes and physical activity but differ in definitions of success". Others, like Trochim et al. (2006), go so far as to say the divide between biomedical and holistic views of health are arbitrary.

It is important, however, to remember why weight-neutral approaches like the HAES® approach emerged within a field which was otherwise dominated by the biomedical model of

health: in response to the negative physical and psychological consequences of centring weight loss in health, as well as the lack of empirical evidence to support causal links between 'obesity' and many illnesses, and the lack of efficacy of weight-centric interventions. The use of contradictory language here may indicate a deliberate attempt to harness the social justice approach of HAES®-based interventions whilst also retaining a biomedical, weight-centric approach which is often considered to be more 'credible' in healthcare and medicine. Crisler (2018) comments on the unwillingness of the medical community to accept the paucity of evidence for weight-focused approaches in their criticism of the term 'obesity paradox', used to describe the phenomenon of lower mortality and morbidity in people considered to be in the 'overweight' BMI category. According to Chrisler (2018) and Konik and Smith (2015), this "would not be considered paradoxical except for the "firmly held belief that fat is always dangerous to health"" (Chrisler, 2018; Konik & Smith, 2015). Based on this discourse analysis, it appears that the paradoxical language has done little to advance the weight-neutral approach. Instead, it seems to shift the weight sciences away from social justice in order to maintain 'biomedical credibility'. Stigmatising language continues to be used without acknowledgement of its impacts, as does a focus on individuals as the major drivers of ill-health and 'obesity'. In an attempt to reconcile opposing paradigms, or perhaps co-opt weight-neutral language in approaches with weight-normative foundations, the original intent and principles of weight neutral approaches (like the HAES® model) have been lost, or at least misrepresented, in academic discourses. This calls into question the utility and possibility of integrating weight-centric and weight-neutral approaches.

Implications and future directions

This study has important implications for research and practice. The language of academic

literature can play an important role in the construction of weight-neutral approaches to health, and we have demonstrated a contradictory and confusing construction of such approaches like the HAES® model. This is supported by some existing literature, with Cain and Donaghue (2018, p. 275) demonstrating, through a recent critical discourse analysis of women's engagement with the HAES® approach, that mainstream healthist discourses that conflate fat and ill-health can easily infiltrate HAES®-based and fat acceptance messaging. Similarly, Rich et al (2018, p. 138) find that school-aged girls can simultaneously engage in both weight-normative pedagogies and those that adopt a more critical and socio-ecological approach to weight and health. These studies focus on individuals of the general public, mainly women and girls, who, through their actions, language and understanding, do play a part in constructing the meaning of weight-neutral approaches. They are, however, also consumers of the health information. What is missing from this literature is an insight into how healthcare professionals and researchers create weight-neutral approaches through their beliefs, language and actions.

This study also points towards the incompatibility of weight-neutral and weight-centric approaches. The findings herald the need to define and clarify weight-neutral principles in order to provide researchers and clinicians with guidance in designing, conducting, reporting and applying studies in accordance with practices designed to reduce harm and promote well-being. While there is a significant, emerging body of literature addressing weight-neutral approaches, it seems to be such a sharp deviation from the biomedical, weight-centric model of health that researchers seem to be unsure how to incorporate it into the dominant framework, resulting in a haphazard amalgamation of the two paradigms. The language and practices that comprise the weight-neutral approach need to be explored further and clearly defined.

Limitations

This study has some limitations. The focus of the discourse analysis was on how written language is used in the construction of weight-neutral approaches. It did not investigate accounts of how the paradigm is directly perceived by researchers, health professionals or the general public, which can be achieved through other qualitative techniques such as interviews, focus groups and surveys. While language is important in the construction of weight-neutral approaches, it may not necessarily reflect health or weight-related practices and actions (Steinmann et al., 2020). This discourse analysis can be supplemented by other qualitative techniques such as observational studies, in order to investigate translation of weight-neutral discourses in settings like healthcare, the media and the day-to-day lives of individuals (Feltham-King & Macleod, 2016; Murphy et al., 1998; Shaw & Bailey, 2009). Additionally, as demonstrated, the parameters of the weight-neutral approach are ill-defined, encompassing a wide variety of practices, including intuitive eating, 'non-diet approaches', 'flexible restraint', joyful movement and even other separate entities such as fat acceptance. This impacted the way in which data could be collected for this discourse analysis, which focused on capturing a broad spectrum of weight neutrality. Future health research would benefit from a well-defined characterisation of weight-neutral approaches and practices.

Conclusion

Language plays an important role in the construction of weight and health, yet very little is known about the language and discourses that are creating the reality of rapidly emerging and increasingly adopted weight-neutral approaches (like the HAES® model). This discourse analysis contributes to bridging this gap and demonstrates that, while there is a marked attempt to adopt frameworks like the HAES® model in health-based intervention, many researchers also continue to ascribe to weight-normative principles to retain biomedical

credibility. This has resulted is a confusing and contradictory set of messages about the weight-neutral paradigm. Trying to uphold both paradigms simultaneously, or perhaps, deliberately co-opting weight-neutral language for use in the context of weight-normative interventions, as may be the case in the academic literature, detracts from the intended beneficial effects of weight-neutral principles. More research is needed to further characterise weight-neutral approaches, as well as to develop a clearer framework for researchers and practitioners wishing to engage with the weight-neutral paradigm of health.

References

Abou-Rizk, Z., & Rail, G. (2014). "Judging a body by its cover": Young Lebanese-Canadian women's discursive constructions of the "healthy" body and "health" practices. *Journal of Immigrant and Minority Health*, *16*(1), 150-164. https://doi.org/10.1007/s10903-012-9757-5

Almeida, E. P. (2004). A discourse analysis of student perceptions of their communication competence. *Communication Education*, *53*(4), 357-364. https://doi.org/10.1080/0363452032000305968

Aphramor, L. (2010). Validity of claims made in weight management research: A narrative review of dietetic articles. *Nutrition Journal***,** *9*(1), 30. https://doi.org/10.1186/1475-2891-9-30

Association for Size Diversity and Health. (2020, December 10). *HAES approach*. Association for Size Diversity and Health. https://asdah.org/health-at-every-size-haes-approach/.

Bacon, L., Stern, J.S., Van Loan, M.D., & Keim, N.L. (2005). Size acceptance and intuitive eating improve health for obese, female chronic dieters. *Journal of the American Dietetics* Association, *105*(6), 929-36. doi: 10.1016/j.jada.2005.03.011. PMID: 15942543. http://doi.org/10.1016/j.jada.2005.03.011

Bacon, L. (2010). *Health at every size: The surprising truth about your weight*. US, BenBella Books.

Bacon, L. (2016). *The HAES® files: There is no social justice without bodies*. Health At Every Size Blog. https://healthateverysizeblog.org/2016/07/14/the-haes-files-there-is-no-social-justice-without-bodies/ 2021.

Bacon, L., & Aphramor, L. (2011). Weight science: Evaluating the evidence for a paradigm shift. *Nutrition Journal***,** *10*(1), 9. https://doi.org/10.1186/1475-2891-10-9

Bégin, C., Carbonneau, E., Gagnon-Girouard, M.P., Mongeau, L., Paquette, M.C., Turcotte, M., & Provencher, V. (2019). Eating-related and psychological outcomes of Health at Every Size Intervention in health and social services centers across the province of Québec. *American Journal of Health Promotion*, *33*(2), 248-258. http://doi.org/ 10.1177/0890117118786326. Epub 2018 Jul 9. PMID: 29986603.

Berger, P. L., & Luckmann, T. (1991 (1966)). *The social construction of reality: A treatise in the sociology of knowledge*. UK: Penguin.

Berman, M.I., Morton, S.N., & Hegel, M.T. (2016). Uncontrolled pilot study of an Acceptance and Commitment Therapy and Health at Every Size intervention for obese, depressed women: Accept Yourself! *Psychotherapy (Chic)*, *53*(4), 462-467. http://doi.org/10.1037/pst0000083. Epub 2016 Oct 31. PMID: 27797546.

Blackburn, M., & Stathi, A. (2019). Moral discourse in general practitioners' accounts of obesity communication. *Social Science & Medicine, 230,* 166-173. https://doi.org/10.1016/j.socscimed.2019.03.032

Bombak, A., Monaghan, L. F., & Rich, E. (2019). Dietary approaches to weight-loss, Health At Every Size® and beyond: Rethinking the war on obesity. *Social Theory & Health***,** *17*(1), 89-108. https://doi.org/10.1057/s41285-018-0070-9

Borkoles, E., Carroll, S., Clough, P., & Polman, R. C. J. (2016). Effect of a non-dieting lifestyle randomised control trial on psychological well-being and weight management in morbidly obese pre-menopausal women. *Maturitas, 83,* 51-58. https://doi.org/10.1016/j.maturitas.2015.09.010

Broom, A. & E. Willis (2007). Competing paradigms and health research. In *Researching health : Qualitative, quantitative and mixed methods* (pp. 16-31) (M. Saks & J. Allsop., eds.). London: Sage**.**

Brady, J., Gingras, J., & Aphramor, L. (2013). Theorizing health at every size as a relational–cultural endeavour. *Critical Public Health, 23*(3), 345-355. https://psycnet.apa.org/doi/10.1080/09581596.2013.797565

Brevers, D., Rogiers, A., Defontaine, A., Cheron, Guy., Clarinval, A., Foucart, J., Bouchez, A., Bolly, V., Tsartsafloudakis, L., Jottrand, P., Minner, P., Bechara, A., Kornreich, C., & Verbanck, P. (2017). Implementation intention for initiating intuitive eating and active embodiment in obese patients using a smartphone application. *Frontiers in Psychiatry*, *8*, 243. https://doi.org/10.3389/fpsyt.2017.00243

Brown, L. B. (2009). Teaching the "health at every size" paradigm benefits future fitness and health professionals. *Journal of Nutrion Education and Behaviors*, *41*(2), 144-145. https://doi.org/10.1016/j.jneb.2008.04.358

Brown-Bowers, A., Ward, A., & Cormier, N. (2017). Treating the binge or the (fat) body? Representations of fatness in a gold standard psychological treatment manual for binge eating disorder. *Health, 21*(1), 21-37. https://doi.org/10.1177/1363459316674788

Cadena-Schlam, L., & López-Guimerà, G. (2014). Intuitive eating: An emerging approach to eating behavior. *Nutricion Hospitalaria***,** *31*(3), 995-1002. https://doi.org/10.3305/nh.2015.31.3.7980

Cain, P. & Donaghue, N. (2018). Political and health messages are differently palatable: A critical discourse analysis of women's engagement with Health At Every Size and fat acceptance messages. *Fat Studies, 7*(3), 264-277. https://doi.org/10.1080/21604851.2018.1448174

Carroll, S., Borkoles, E., & Polman, R. (2007). Short-term effects of a non-dieting lifestyle intervention program on weight management, fitness, metabolic risk, and psychological well-being in obese premenopausal females with the metabolic syndrome. *Applied Physiology, Nutrition and Metabolism, 32*(1), 125-142. https://doi.org/10.1139/h06-093

Censin, J. C., Peters, S. A. E., Bovijn, J., Ferreira, T., Pulit, S. L., Mägi, R., Mahajan, A., Holmes, M. V., & Lindgren, C. M. (2019). Causal relationships between obesity and the leading causes of death in women and men. *PLoS Genetics, 15*(10), e1008405-e1008405. https://dx.doi.org/10.1371%2Fjournal.pgen.1008405

Childress, J. F., & Beauchamp, T. L. (2001). *Principles of biomedical ethics*. New York: Oxford University Press.

Chrisler, J. C. (2018). Teaching health psychology from a size-acceptance perspective. *Fat Studies, 7*(1), 33-43. https://doi.org/10.1080/21604851.2017.1360668

Chrisler, J. C., & Barney, A. (2017). Sizeism is a health hazard. *Fat Studies*, *6*(1), 38-53. https://psycnet.apa.org/doi/10.1080/21604851.2016.1213066

Cloutier-Bergeron, A., Provencher, V., Mongeau, L., Paquette, M. C. , Carbonneau, É., Turcotte, M., & Bégin, C. (2019). Does Health At Every Size® fit all? A group-based trajectory modeling of a non-diet intervention. *Appetite, 143*, 104403. https://doi.org/10.1016/j.appet.2019.104403

Collins Dictionary. (2021). Obese. from https://www.collinsdictionary.com/dictionary/english/obese.

Conrad, P., & Barker, K. K. (2010). The social construction of illness: Key insights and policy implications. *Journal of Health and Social Behavior***,** *51*(1 suppl), S67-S79. https://psycnet.apa.org/doi/10.1177/0022146510383495

Curtis, J. P., Selter, J. G., Wang, Y., Rathore, S. S., Jovin, I. S., Jadbabaie, F., Kosiborod, M., Portnay, E. L., Sokol, S. I., Bader, F., & Krumholz, H. M. (2005). The obesity

paradox: Body mass index and outcomes in patients with heart failure. *Archives of Internal Medicine, 165*(1), 55-61. https://doi.org/10.1001/archinte.165.1.55

Daly, M., Sutin, A. R., & Robinson, E. (2019). Perceived weight discrimination mediates the prospective association between obesity and physiological dysregulation: Evidence from a population-based cohort. *Psychological Science, 30*(7), 1030-1039. https://doi.org/10.1177%2F0956797619849440

Darroch, F. E., & Giles, A. R. (2016). A postcolonial feminist discourse analysis of urban Aboriginal women's description of pregnancy-related weight gain and physical activity. *Women and Birth, 29*(1), e23-32. https://doi.org/10.1016/j.wombi.2015.08.003

Diaz-Bone, R., Bührmann, A. D., Rodríguez, E. G., Schneider, W., Kendall, G., & Tirado, F. (2008). The field of Foucaultian discourse analysis: Structures, developments and perspectives. *Historical Social Research/Historische Sozialforschung*, 7-28. https://doi.org/10.17169/fqs-8.2.234

Dickinson, J. K., Guzman, S. J., Maryniuk, M. D., O'Brian, C. A., Kadohiro, J. K., Jackson, R. A., D'Hondt, N., Montgomery, B., Close, K. L., & Funnell, M. M. (2017). The use of language in diabetes care and education. *Diabetes Care*, *40*(12), 1790. https://doi.org/10.2337/dci17-0041

Dugmore, J. A., Winten, C. G., Niven, H. E., & Bauer, J. (2020). Effects of weight-neutral approaches compared with traditional weight-loss approaches on behavioral, physical, and psychological health outcomes: A systematic review and meta-analysis. *Nutrition Reviews, 78*(1), 39-55. https://doi.org/10.1093/nutrit/nuz020

Evans, J., Davies, B., & Rich, E. (2008). The class and cultural functions of obesity discourse: Our latter day child saving movement. *International Studies in Sociology of Education*, *18*(2), 117-132. https://doi.org/10.1080/09620210802351367

Feltham-King, T., & Macleod, C. (2016). How content analysis may complement and extend the insights of discourse analysis: An example of research on constructions of abortion in South African newspapers 1978–2005. *International Journal of Qualitative Methods, 15*(1), 1609406915624575. https://doi.org/10.1177%2F1609406915624575

Ferry, M. D., & Richards, C. (2015). Biopedagogy digitalized: 'Educational' relations among participants on an online weight loss surgery forum. *Critical Public Health, 25*(1), 63-77. https://doi.org/10.1080/09581596.2014.940849

Fildes, A., Charlton, J., Rudisill, C., Littlejohns, P., Prevost, A. T., & Gulliford, M. C. (2015). Probability of an obese person attaining normal body weight: Cohort study using electronic health records. *American Journal of Public Health, 105*(9), e54-e59. https://doi.org/10.2105/ajph.2015.302773

Forth, C. E. (2013). The qualities of fat: Bodies, history, and materiality. *Journal of Material Culture, 18*(2), 135-154. http://dx.doi.org/10.1177/1359183513489496

Franks, P. W., & Atabaki-Pasdar, N. (2017). Causal inference in obesity research. *Journal of Internal Medicine, 281*(3), 222-232. https://doi.org/10.1111/joim.12577

Gagnon-Girouard, M.P., Bégin, C., Provencher, V., Tremblay, A., Mongeau, L., Boivin, S., & Lemieux, S. (2010). Psychological impact of a "Health-at-Every-Size" intervention on weight-preoccupied overweight/obese women. *Journal of Obesity, 2010,* 928097. http://doi.org/10.1155/2010/928097. Epub 2010 Jun 29. PMID: 20798861; PMCID: PMC2925467.

Galvin, R. (2002). Disturbing notions of chronic illness and individual responsibility: Towards a genealogy of morals. *Health, 6*(2), 117-121. https://doi.org/10.1177%2F136345930200600201

Gee, J. P. (2014). *An introduction to discourse analysis : Theory and method.* Routledge.

Gibson, G. (2021). Health(ism) at every size: The duties of the “good fatty”. *Fat Studies*, 1-14. https://doi.org/10.1080/21604851.2021.1906526

Glenister, K., Opie, C. A., & Wright, J. (2018). Preferred language regarding overweight and obesity in general practice: a survey of predominantly rural Australian adults. *Australian Journal of Primary Health, 24*(5), 391-397. https://doi.org/10.1071/py18023

Glenn, N., McGannon, K. & Spence, J. (2013). Exploring media representations of weight-loss surgery. *Qualitative Health Research*, *23*. http://dx.doi.org/10.1177/1049732312471731

Goffman, E. (1986). ‘Stigma and social identity’ (pp. 1-40). *Stigma: Notes on the management of spoiled identity*. New York: Simon & Schuster**.**

Gonzalez Johansen, K. (2020). *Weight bias amongst health professionals on Instagram : A critical multimodal discourse analysis*. Independent thesis Advanced level (degree of Master (Two Years)) Student thesis.

Hall, K. D., & Kahan, S. (2018). Maintenance of lost weight and long-term management of obesity. *The Medical Clinics of North America, 102*(1), 183-197. https://doi.org/10.1016/j.mcna.2017.08.012

Harper, E. A. & Rail, G. (2012). ‘Gaining the right amount for my baby’: Young pregnant women’s discursive constructions of health. *Health Sociology Review, 21*(1), 69-81. https://doi.org/10.5172/hesr.2012.21.1.69

Hyppönen, E., Mulugeta, A., Zhou, A., & Santhanakrishnan, V. K. (2019). A data-driven approach for studying the role of body mass in multiple diseases: A phenome-wide registry-based case-control study in the UK Biobank. *The Lancet Digital Health, 1*(3), e116-e126. https://doi.org/10.1016/s2589-7500(19)30028-7

Kalantar-Zadeh, K., Streja, E., Kovesdy, C. P., Oreopoulos, A., Noori, N., Jing, J., Nissenson, A. R., Krishnan, M., Kopple, J. D., Mehrotra, R., & Anker, S. D. (2010). The obesity paradox and mortality associated with surrogates of body size and muscle mass in patients receiving hemodialysis. *Mayo Clinic Proceedings, 85*(11), 991-1001. https://doi.org/10.4065/mcp.2010.0336

Kaminer, D., & Dixon, J. (1995). The reproduction of masculinity: A discourse analysis of men’s drinking talk. *South African Journal of Psychology, 25*(3), 168-174. http://doi.org/10.1177/008124639502500305

Khan, C. (2019). *Interview with Sofie Hagen: ‘Fat is a neutral word – I want us to reclaim it’*. The Guardian (Australian edition). https://www.theguardian.com/stage/2019/apr/22/sofie-hagen-fat-is-a-neutral-word-i-want-us-to-reclaim-it.

Knutsen, I. R., Terragni, L., & Foss, C. (2013). Empowerment and bariatric surgery: Negotiations of credibility and control. *Qualitative Health Research, 23*(1), 66-77. https://doi.org/10.1177/1049732312465966

Komduur, R., & Te Molder, H. (2014). The role of genes in talking about overweight: An analysis of discourse on genetics, overweight and health risks in relation to nutrigenomics. *Public Understanding of Science, 23*(8), 886-902. https://doi.org/10.1177/0963662512472159

Konik, J., & Smith, C. A. (2015). Medicalizing women's weight: Bariatric surgery and weight-loss drugs. In M. C. McHugh & J. C. Chrisler (Eds.), *The wrong prescription for women: How medicine and media create a "need" for treatments, drugs, and surgery* (pp. 203–219). Praeger/ABC-CLIO.

Kyle, T. K., Dhurandhar, E. J., & Allison, D. B. (2016). Regarding obesity as a disease: Evolving policies and their implications. *Endocrinology and Metabolism Clinics of North America, 45*(3), 511-520. https://dx.doi.org/10.1016%2Fj.ecl.2016.04.004

Landbo, C., Prescott, E., Lange, P., Vestbo, J., & Almdal, T. P. (1999). Prognostic value of nutritional status in chronic obstructive pulmonary disease. *American Journal of Respiratory and Critical Care Medicine, 160*(6), 1856-1861. https://doi.org/10.1164/ajrccm.160.6.9902115

Leblanc, V., Provencher, V., Bégin, C., Corneau, L., Tremblay, A., & Lemieux, S. (2012). Impact of a Health-At-Every-Size intervention on changes in dietary intakes and eating patterns in premenopausal overweight women: results of a randomized trial. *Clinical Nutrition, 31*(4), 481-488. https://doi.org/10.1016/j.clnu.2011.12.013

Leeds-Hurwitz, W. (2009). Social construction of reality (pp. 892-894). In *Encyclopedia of communication theory*. (S. W. Littlejohn & K. A. Floss., eds.). Thousand Oaks, California, SAGE Publications, Inc.

Lekkas, P., & Stankov, I. (2014). Framing obesity-drawing on the margins. *American Journal of Public Health, 104*(7): e1. https://dx.doi.org/10.2105%2FAJPH.2014.301963

Lessa, I. (2005). Discursive struggles within social welfare: Restaging teen motherhood. *The British Journal of Social Work, 36*(2), 283-298. https://doi.org/10.1093/bjsw/bch256

Liebman, M. (2005). Promoting healthy weight: lessons learned from WIN the Rockies and other key studies. *Journal of Nutrition Education and Behaviour*, *37*(Suppl 2), S95-100. http://doi.org/10.1016/s1499-4046(06)60206-6. PMID: 16246274.

Malterud, K., & Ulriksen, K. (2011). Obesity, stigma, and responsibility in health care: A synthesis of qualitative studies. *International Journal of Qualitative Studies on Health and Well-being, 6*(4), https://doi.org/10.3402/qhw.v6i4.8404

McPhail, D. & Bombak, A. E. (2015). Fat, queer and sick? A critical analysis of 'lesbian obesity' in public health discourse. *Critical Public Health, 25*(5), 539-553. https://doi.org/10.1080/09581596.2014.992391

Meadows, A., & Daníelsdóttir, S. (2016). What's in a word? On weight stigma and terminology. *Frontiers in Psychology, 7*(1527), https://doi.org/10.3389/fpsyg.2016.01527

Mensinger, J. L., Calogero, R. M., Stranges, S., & Tylka, T. L. (2016). A weight-neutral versus weight-loss approach for health promotion in women with high BMI: A randomized-controlled trial. *Appetite, 105*, 364-374, https://doi.org/10.1016/j.appet.2016.06.006

Mensinger, J.L., Calogero, R.M., & Tylka, T.L. (2016b). Internalized weight stigma moderates eating behavior outcomes in women with high BMI participating in a

healthy living program. *Appetite, 102*, 32-43. http://doi.org/10.1016/j.appet.2016.01.033. Epub 2016 Jan 29. PMID: 26829370.

Monaghan, L. F., Colls, R., & Evans, B. (2013). Obesity discourse and fat politics: Research, critique and interventions. *Critical Public Health, 23*(3), 249-262. https://doi.org/10.1080/09581596.2013.814312

Monson, O., Donaghue, N., & Gill, R. (2016). Working hard on the outside: A multimodal critical discourse analysis of The Biggest Loser Australia. *Social Semiotics, 26*(5), 524-540. https://doi.org/10.1080/10350330.2015.1134821

Murphy, E., Dingwall, R., Greatbatch, D., Parker, S., & Watson, P. (1998). Qualitative research methods in health technology assessment: A review of the literature. *Health Technology Assessment (Winchester, England), 2*: iii-ix, 1. https://doi.org/10.3310/hta2160

Nutter, S., Russell-Mayhew, S., Alberga, A. S., Arthur, N., Kassan, A., Lund, D. E., Sesma-Vazquez, M., & Williams, E. (2016). Positioning of weight bias: Moving towards social justice. *Journal of Obesity,* 3753650. https://doi.org/10.1155/2016/3753650

O'Hara, L., Taylor, J., & Barnes, M. (2015). The extent to which the public health'war on obesity'reflects the ethical values and principles of critical health promotion: A multimedia critical discourse analysis. *Health Promotion Journal of Australia: Official Journal of Australian Association of Health Promotion Professionals, 26*(3), 246-254. https://doi.org/10.1071/he15046

O'Hara, L., & Taylor, J. (2014). Health at Every Size: A weight-neutral approach for empowerment, resilience and peace. *International Journal of Social Work and Human Services Practice, 2*(6), 272-282. http://doi.org/10.13189/ijrh.2014.020611

Oreopoulos, A., Padwal, R., Norris, C. M., Mullen, J. C., Pretorius, V., & Kalantar-Zadeh, K. (2008). Effect of obesity on short- and long-term mortality postcoronary revascularization: A meta-analysis. *Obesity (Silver Spring), 16*(2), 442-450. https://doi.org/10.1038/oby.2007.36

Papas, C. (2020 April 27*). Opinion: Unpacking and reclaiming the word 'fat'*. ABC Life. Retrieved 2020 October 29, 2020. https://www.abc.net.au/life/unpacking-and-reclaiming-the-word-fat/11726100.

Parsons, D. (2016). Moving towards a weight-neutral approach to obesity management. *University of British Columbia Medical Journal, 7*(2), 21-23.

Penney, T. L., & Kirk, S. F. L. (2015). The Health at Every Size paradigm and obesity: Missing empirical evidence may help push the reframing obesity debate forward.

American Journal of Public Health, 105(5), e38-e42. https://dx.doi.org/10.2105%2FAJPH.2015.302552

Pesch, M. H., Viechnicki, G. B., Appugliese, D. P., Kaciroti, N., Rosenblum, K. L., Miller, A. L., & Lumeng, J. C. (2019). A mixed methods analysis of maternal response to children's consumption of a palatable food: Differences by child weight status. *Pediatric Obesity, 14*(3), e12474. https://doi.org/10.1111/ijpo.12474

Provencher, V., Bégin, C., Tremblay, A., Mongeau, L., Boivin, S., & Lemieux, S. (2007). Short-term effects of a "health-at-every-size" approach on eating behaviors and appetite ratings. *Obesity (Silver Spring), 15*(4), 957-966. https://doi.org/10.1038/oby.2007.638

Provencher, V., Bégin, C., Tremblay, A., Mongeau, L., Corneau, L., Dodin, S., Boivin, S., & Lemieux, S. (2009). Health-At-Every-Size and eating behaviors: 1-year follow-up results of a size acceptance intervention. *Journal of the American Dietetics Association, 109*(11), 1854-1861. https://doi.org/10.1016/j.jada.2009.08.017

Puhl, R., Peterson, J. L., & Luedicke, J. (2013). Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *International Journal of Obesity, 37*(4), 612-619. https://doi.org/10.1038/ijo.2012.110

Puhl, R. M., & Heuer, C. A. (2010). Obesity stigma: Important considerations for public health. *American Journal of Public Health, 100*(6), 1019-1028. https://dx.doi.org/10.2105%2FAJPH.2009.159491

Rice, L., & Collins, L. (2020). Health at Every Size®. In Y. N. Evans and A. Dixon Docter (Eds.), *Adolescent nutrition: Assuring the needs of emerging adults* (pp. 317-347). Cham, Springer International Publishing.

Rich, E., Monaghan, L. F., & Bombak, A. E. (2020). A discourse analysis of school girls engagement with fat pedagogy and critical health education: Rethinking the childhood 'obesity scandal'. *Sport, Education and Society, 25*(2), 127-142. https://doi.org/10.1080/13573322.2019.1566121

Robison, J. (2005). Health at every size: toward a new paradigm of weight and health. *Medscape General Medicine, 7*(3), 13.

Robison, J., Putnam, K., & McKibbin, L. (2007). Health At Every Size: A compassionate, effective approach for helping individuals with weight-related concerns--Part II. *Americal Association of Occupational Health Nurses Journal, 55*(5), 185-192. https://doi.org/10.1177/216507990705500503

Romero-Corral, A., Montori, V. M., Somers, V. K., Korinek, J., Thomas, R. J., Allison, T. G., Mookadam, F., & Lopez-Jimenez, F. (2006). Association of bodyweight with total mortality and with cardiovascular events in coronary artery disease: A systematic review of cohort studies. *The Lancet, 368*(9536), 666-678. https://doi.org/10.1016/s0140-6736(06)69251-9

Rosen, H. (2014). Is obesity a disease or a behavior abnormality? Did the AMA get it right? *Missouri Medicine, 111*(2), 104-108.

Rothblum, E. D. (2018). Slim chance for permanent weight loss. *Archives of Scientific Psychology, 6*(1), 63-69. http://dx.doi.org/10.1037/arc0000043

Sabatini, F., Ulian, M. D., Perez, I., Pinto, A. J., Vessoni, A., Aburad, L., Benatti, F. B., Lopes de Campos-Ferraz, P., Coelho, D., de Morais Sato, P., Roble, O. J., Unsain, R. F., Schuster, R. C., Gualano, B., & Scagliusi, F. B. (2019). Eating pleasure in a sample of obese Brazilian women: A qualitative report of an interdisciplinary intervention based on the Health at Every Size approach. *Journal of the Academy of Nutrition and Dietetics, 119*(9), 1470-1482. https://doi.org/10.1016/j.jand.2019.01.006

Sainsbury, A., & Hay, P. (2014). Call for an urgent rethink of the 'health at every size' concept. *Journal of Eating Disorders, 2*(1), 8. https://doi.org/10.1186/2050-2974-2-8

Seeman, T. E., McEwen, B. S., Rowe, J. W., & Singer, B. H. (2001). Allostatic load as a marker of cumulative biological risk: MacArthur studies of successful aging. *Proceedings of the National Acaddemy of Sciences of the United States of America, 98*(8), 4770-4775. https://doi.org/10.1073/pnas.081072698

Setchell, J., Watson, B. M., Gard, M., & Jones, L. (2016). Physical therapists' ways of talking about overweight and obesity: Clinical implications. *Physical Therapy, 96*(6), 865-875. https://doi.org/10.2522/ptj.20150286

Setiawan, C., & Anwar, M.H. (2021). Narrating biopedagogy: a small story analysis of identities and parenting practices for healthy living. *Physical Education and Sport Pedagogy*, 1-13. DOI: 10.1080/17408989.2021.1990242. https://doi.org/10.1080/17408989.2021.1990242

Shaw, S. E., & Bailey, J. (2009). Discourse analysis: What is it and why is it relevant to family practice? *Family Practice, 26*(5), 413-419. https://dx.doi.org/10.1093%2Ffampra%2Fcmp038

Simpson, C.C., Griffin, B.J., & Mazzeo, S.E. (2019). Psychological and behavioral effects of obesity prevention campaigns. *Journal of Health Psychology*, *24*(9), 1268-1281. https://doi.org/10.1177/1359105317693913

Steinmann, G., van de Bovenkamp, H., de Bont, A., & Delnoij, D. (2020). Redefining value: A discourse analysis on value-based health care. *BioMed Central Health Services Research, 20*(1), 862. https://doi.org/10.1186/s12913-020-05614-7

Tomiyama, A.J., Carr, D., Granberg, E.M., Major, B., Robinson, E., Sutin, A.R., & Brewis, A. (2018). How and why weight stigma drives the obesity 'epidemic' and harms health. *BioMed Central Medicine, 16*(1), 123. https://doi.org/10.1186/s12916-018-1116-5

Trochim, W. M., Cabrera, D. A., Milstein, B., Gallagher, R. S., & Leischow, S. J. (2006). Practical challenges of systems thinking and modeling in public health. *American Journal of Public Health, 96*(3), 538-546. https://dx.doi.org/10.2105%2FAJPH.2005.066001

Tylka, T. L., Annunziato, R. A., Burgard, D., Daníelsdóttir, S., Shuman, E., Davis, C., & Calogero. R. M. (2014). The weight-inclusive versus weight-normative approach to health: Evaluating the evidence for prioritizing well-being over weight loss. *Journal of Obesity*, 983495. https://doi.org/10.1155/2014/983495

Ulian, M. D., Aburad, L., da Silva Oliveira, M. S., Poppe, A. C. M., Sabatini, F., Perez, I., Gualano, B., Benatti, F. B., Pinto, A. J., Roble, O. J., Vessoni, A., de Morais Sato, P., Unsain, R. F., & Baeza Scagliusi, F. (2018). Effects of Health At Every Size® interventions on health-related outcomes of people with overweight and obesity: A systematic review. *Obesity Reviews*, *19*(12), 1659-1666. https://doi.org/10.1111/obr.12749

Ulian, M. D., Benatti, F. B., de Campos-Ferraz, P. L., Roble, O. J., Unsain, R. F., de Morais Sato, P., Brito, B. C., Murakawa, K. A., Modesto, B. T., Aburad, L., Bertuzzi, R., Lancha Jr, A. H., Gualano, B., & Scagliusi, F. B. (2015). The effects of a "Health at Every Size®"- based approach in obese women: A pilot-trial of the "Health and Wellness in Obesity" study. *Frontiers in Nutrition*, *2*, 34. https://doi.org/10.3389/fnut.2015.00034

Van Amsterdam, N. (2013). Big fat inequalities, thin privilege: An intersectional perspective on 'body size'. *European Journal of Women's Studies*, *20*, 155-169. https://psycnet.apa.org/doi/10.1177/1350506812456461

Van Dijk, T. A. (Ed.). (1997). Discourse as structure and process (Vol. 1). Sage.

Van Gaal, L. F., Mertens, I. L., & De Block, C. E. (2006). Mechanisms linking obesity with cardiovascular disease. *Nature*, *444*(7121), 875-880. https://doi.org/10.1038/nature05487

Wall, J., B. Stahl and A. Salam (2015). Critical discourse analysis as a review methodology: An empirical example. *Communications of the Association for Information Systems*, *37*. http://dx.doi.org/10.17705/1CAIS.03711

Warin, M. (2015). Material feminism, obesity science and the limits of discursive critique. *Body & Society*, *21*(4), 48-76. https://doi.org/10.1177%2F1357034X14537320

Watkins, P., Ebbeck, V., & Levy, S. (2014). Overcoming weight bias: Promoting physical activity and psychosocial health. *Ethnicity and Inequalities in Health and Social Care*, *7*, 187-197. http://dx.doi.org/10.1108/EIHSC-11-2013-0043

Weiss, S. M. (2015). Re/framing fatness. *Symbolic Interaction*, *38*(4), 644-646.

Westenhoefer, J., Engel, D., Holst, C., Lorenz, J., Peacock, M., Stubbs, J., Whybrow, S., & Raats, M. (2013). Cognitive and weight-related correlates of flexible and rigid restrained eating behaviour. *Eating Behaviors*, *14*(1), 69-72, https://doi.org/10.1016/j.eatbeh.2012.10.015.

Willer, F., Hannan-Jones, M., & Strodl, E. (2019). Australian dietitians' beliefs and attitudes towards weight loss counselling and health at every size counselling for larger-bodied clients. *Nutrition & Dietetics, 76*(4), 407-413. https://doi.org/10.1111/1747-0080.12519

William, O., & Annandale, E. (2020). Obesity, stigma and reflexive embodiment: Feeling the 'weight' of expectation. *Health*, *24*(4), 421-441. https://doi.org/10.1177/1363459318812007

Woo, Y. and T. C. Reeves (2007). Meaningful interaction in web-based learning: A social constructivist interpretation. *The Internet and Higher Education*, *10*(1), 15-25. http://dx.doi.org/10.1016/j.iheduc.2006.10.005

World Health Organization. (2005). *Obesity and overweight*. WHO. https://www.who.int/en/news-room/fact-sheets/detail/obesity-and-overweight.

Wright, J. (2012). Biopower, biopedagogies and the obesity epidemic. In *Biopolitics and the 'obesity epidemic'* (pp. 9-22). Routledge.

Yazdannik, A., Yousefy, A., & Mohammadi, S. (2017). Discourse analysis: A useful methodology for health-care system researches. *Journal of Education and Health Promotion, 6*, 111. https://doi.org/10.4103/jehp.jehp_124_1