Knowledge brokering: (mis)aligning population knowledge with care of fat bodies

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Abstract

Objective Two prominent Canadian knowledge brokers aim to influence how primary care clinicians address obesity, through the dissemination of texts: the Canadian Task Force on Preventive Health Care (guideline) and the Canadian Obesity Network (5As). While written for the same clinician and adult patient population, the recommendations differ. This analysis highlights active decisions that produced the difference.

Methods Frame analysis of the guideline and 5As texts.

Results The brokers both frame obesity as a chronic and pathological threat to health, at least to a point. The guideline texts frame obesity primarily as a sign of a behavioural problem, discrediting or ignoring many complicating sources of knowledge. In contrast, the 5As frames obesity as complex through diversifying the knowledge foundation embedded in the texts (e.g., including fat-related stigmatisation; health status differences among those classified as obese). Both de-emphasize social and environmental determinants of weight and health.

Conclusion Frames of problems used by brokers are not neutral, nor are decisions about how knowledge is excluded and included. Knowledge brokering, no matter how scientific and systematic, is limited by its frame. Recognizing the limits of each frame supports reflexivity in knowledge brokering and interventions taken to enhance health.

Résumé

Objectif Deux réputés courtiers de connaissances canadiens tentent d'influencer la façon dont les cliniciens de soins primaires abordent l'obésité, en diffusant des textes du Groupe d'étude canadien sur les soins de santé préventifs (Ligne directrice) et du Réseau canadien en obésité (« 5As »). Bien qu'ils aient été rédigés pour la même population clinique et adulte, leurs recommandations diffèrent. Cette analyse met en évidence les décisions qui ont mené à ces différences.

Méthodes Analyser les cadres de la ligne directrice et des « 5As ».

Résultats Les courtiers définissent tous les deux l'obésité comme une menace chronique et pathologique pour la santé, dans une certaine mesure du moins. Le texte de la ligne directrice considère l'obésité principalement comme un signe de problème comportemental, discréditant ou ignorant par le fait même de nombreuses sources de connaissances qui compliquent la question. Par contre, les « 5As » considèrent l'obésité comme un problème complexe en diversifiant les bases de connaissances employées dans le texte (p. ex., en incluant la stigmatisation liée au poids et les différences d'état de santé parmi les gens considérés comme obèses). Les deux documents diminuent l'importance des déterminants sociaux et environnementaux du poids et de la santé.

Conclusion Les cadres utilisés par les courtiers pour cerner les problèmes ne sont pas neutres, pas plus que ne le sont les décisions d'exclure ou d'inclure certaines connaissances. Le courtage de connaissances, si scientifique et systémique soit-il, est limité par son propre cadre. Accepter les limites de chaque cadre permet de soutenir la démarche réflexive dans le courtage de connaissances et dans les interventions entreprises pour améliorer la santé.

Keywords Obesity · Fatness · Primary care · Knowledge brokering · Stigma · Critical weight studies

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Introduction

Public health is deeply committed to the vision of optimizing characteristics in the population. Such a dream may not be realized, but is consequential in that knowledge, techniques, experts, and technologies develop to attain it, and shape the lives of those targeted by their interventions (Foucault 1976/1990). The work of knowledge brokers falls within this broader vision. Knowledge brokers review and reassemble existing knowledge into a new form that bridges between research and practice (Meyer 2010). Knowledge brokering is an increasingly ubiquitous activity in public health and health care sectors, but their work to shape health policies and clinical practice is rarely examined closely (Meyer 2010).

In Canada, much knowledge brokering is underway to address what is called an “obesity epidemic”. One proposed way to intervene on obesity is through changing health services delivery. Two prominent Canadian organizations have developed and circulated procedural standards in recent years for primary care clinicians to implement with adult patients: the Canadian Task Force on Preventive Health Care and the Canadian Obesity Network. Procedural standards exist to standardize actions (Timmermans and Berg 2003)—in this case, the actions clinicians take to care for patients in the name of improving health. Each procedural standard embeds choices made by knowledge brokers of the problem, causes, and solutions.

In this paper, I highlight one aspect of knowledge brokering—*framing*—to argue for the need for more reflexive approaches to knowledge brokering in the health sector. I contrast two procedural standards for addressing obesity in primary care, to highlight the frames used by knowledge brokers to justify their interventions. The two knowledge brokers studied here both frame obesity as a health problem, but they make different choices about what knowledge to include and exclude to define the problem and solutions. Specifically, the knowledge brokers made different decisions about how to attend to knowledge of fat-related stigmatization and the existence of healthy bodies across the range of body sizes. These differences are consequential: the broker who relies solely on an anti-obesity frame, without attention to variation in health status or stigmatization, recommends a clinical intervention that authorizes stigmatization of patients. This result is produced not by being unscientific, but through reliance on particular frames. Thus, I argue that knowledge brokering processes should not be viewed as neutral or objective.

Framing, obesity, and critical weight studies

To broker knowledge, the individuals and organizations involved must develop a shared language (Meyer 2010). That is, they must *frame* their work: “to frame is to select some

aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described” (Entman 1993). There are always multiple ways to frame a problem, causes, and solutions. Selecting one frame comes at the expense of other ways to interpret a phenomenon (Entman 1993). When knowledge brokers select a frame, they orient to a particular frame to the exclusion of others. Framing a problem in any particular way has consequences in people’s lives and health, including harmful consequences. Thus, framings of problems, causes, and solutions are relevant to public health practice.

The current project works within the critical weight studies tradition, situating frames in historical trajectories and political rationalities (Meyer 2010; Brady and Beausoleil 2018; Lupton 2013). Obesity is understood, in critical weight studies informed by Foucault’s biopolitics, as shaped by a political rationality that understands life as an object. The object of life is typically understood through studies of “the population”, where phenomena of life such as fertility, mortality, and morbidity are objects known through statistical techniques and treated as modifiable and optimizable via intervention (Foucault 1976/1990). Epidemiological methods are foundational to current health-related knowledge production, shaping what is understood as desirable and undesirable in the population (Shim 2014). Objects marked as abnormal become targets, acted upon to provide security to said population (Foucault 1976/1990). I understand obesity as a framing of fatness produced in this manner, and knowledge brokering as one biopolitical configuration of knowledge, experts, and technologies that exist to produce (more) normality.

Both medical and public health sectors commonly mobilize the biopolitical frame of obesity as a threat to the population (Saguy 2013), which Saguy and Riley as well as Lupton call an “anti-obesity” frame (Lupton 2013; Saguy and Riley 2005). The biomedical frame of obesity emphasizes fatness as pathology, as a chronic disease or risk factor (Saguy 2013). The public health term of “epidemic” is often added, linking pathology to urgency and peril (Saguy 2013). Such frames are preceded by a religious one, which interprets bodily fatness as an exterior sign of immorality and lack of virtue (Jutel 2006). The religious interpretation persists in a new form, commonly combined with pathology and epidemic frames in public health, health care, and media (Lupton 2013; Mayes 2016). These frames—these ways of understanding bodily fatness—underpin and are reinforced in a range of policy and research models (Shim 2014; Medvedyuk et al. 2017), and through attempts to normalize people’s bodies and everyday habits (such as school-based weighing programs and social marketing campaigns) (Mayes 2016; Medvedyuk et al. 2017).

One way critical weight and fat studies scholarship challenge the anti-obesity frame is to highlight its impacts on fat-related stigmatization. Risk, peril, threat, and personal responsibility are all part of the anti-obesity frame. They are also core concepts of stigma communication (Smith 2007). In societies that emphasize self-control and autonomy, such as Canada, bodily fatness is stigmatized, though not always recognized as such (Lupton 2013; Mayes 2016; Larsen 2011). Fat and thin bodies are interpreted as telling inner truths about a person's willpower, values, and investment in health (and being a "good citizen"), as well as knowledge and practice of healthy eating and activity recommendations (Lupton 2013; Puhl and Heuer 2009). Promotion of the anti-obesity frame by public health and health care intensifies stigmatization and discrimination experienced by those classified as excessively fat (Mayes 2016). A public health committed to equity assesses and addresses institutional practices that produce or worsen stigmatization.

Public health should also be concerned about stigmatization as it occurs in other sectors because stigmatization worsens health. Stigmatization is a fundamental cause of poor health and health inequalities, through multiple pathways (Hatzenbuehler et al. 2013). Stigmatization shapes various aspects of everyday life, including employment, income, and quality of health care (Puhl and Heuer 2009). In public health and clinical settings, oversimplifying the determinants of body size and composition into eating and exercise results in simplistic, patronizing advice (Phelan et al. 2015), and blame. In clinical practice, this oversimplification may result in access delays due to inadequate assessment and referral to indicated treatment—a pathway to poorer health outcomes that is understudied at present (Chrisler and Barney 2017). If stigmatization is appreciated as a threat to population health, then what is done in the name of addressing obesity should be of interest to public health.

Methodology and methods

Texts are central to institutions such as health care and public health (Smith 2005). As replicable objects, texts can coordinate actions dislocated in time and space (Smith 2005). Texts are one means to distribute biopolitical initiatives to optimize populations. The current analysis focuses on texts produced by knowledge brokers to intervene on obesity in primary care. The texts written by knowledge brokers rely on and reproduce frames to interpret what is to be done to address the object of obesity.

Studying frames embedded in texts involves interrogating what actions texts standardize, systematize, and normalize—and how (Smith 2005; Rose 2012). What is made salient and important (e.g., through repetition, core justifications, references to other sources of information)? What is communicated as unimportant, such as through discrediting arguments? What is ignored, and to what effect? I answer the latter in part through

comparing the emerging findings to existing obesity/fatness frames described by others (Lupton 2013; Saguy 2013).

My approach to examining texts is influenced by both social problems and Foucauldian research traditions. Both suspend a belief that present-day "objective truths" are correct or the best and instead locate such attempts to define a problem in a time and cultural milieu. Both take an interest in how truth statements influence the actions of institutions. My work aligns with Foucault-influenced methods of critical discourse analysis: identifying regular, systematic statements that are central to the work of institutions and examining the material and social practices that legitimate particular frames of phenomenon as truth. This approach to analyzing texts owes much to Foucault's work on the history of ideas (Hodges et al. 2008; Kendall and Wickham 1999). Yet these regular, systematically used "truth statements" can be contested; conflicts about how to define social problems are common. Some social problems scholars use frame analysis, as Saguy has with fatness (Saguy 2013; Saguy and Riley 2005), to highlight the contests and make explicit the implications of the different courses of action that follow from different frames.

I selected these texts for comparison for several reasons. Both are led by Canadian organizations, funded by the federal government, and designed for the same clinical (primary care) and patient population (adults).¹ Both are considered contemporary and shaped by existing scientific evidence, yet their recommendations vary significantly due to brokering decisions about what counts as important knowledge, highlighting how brokering is always non-neutral. The differences allow for meaningful contrasts of existing controversies about how to frame obesity and the importance (or lack thereof) of considering stigmatization.

The knowledge brokers and their respective texts

The Canadian Task Force on Preventive Health Care

The Canadian Task Force on Preventive Health Care (CTFPHC) was established by the Public Health Agency of Canada (PHAC) to develop clinical practice guidelines for preventive primary care services (CTFPHC n.d.). The CTFPHC's procedural standards are the result of systematic, coordinated actions to gather and assess scientific evidence regarding the effectiveness of selected preventive clinical manoeuvres. For each guideline, a topic working group is established with members from the Task Force, the Global Health and Guidelines Division of PHAC, and an Evidence Review and Synthesis Centre, adding members from external partnering organizations on occasion (CTFPHC n.d.).

¹ And work as a good complement to a recent examination of two Canadian guidelines focusing on weight-related care of children (Medvedyuk et al. 2017).

The CTFPHC's focus is primary and secondary prevention: "Primary prevention is the prevention of a target condition in healthy patients.... Secondary prevention is directed to asymptomatic individuals who have risk factors for a condition or preclinical disease but who do not have clinically evident disease" (p.9) (CTFPHC 2014). The process, in brief, involves the topic working group selecting the clinical outcome they hope to achieve, articulated in the form of a "PICO" question (specifying the patient/population (P) of interest, the intervention (I) and comparator (C), and the outcomes (O) sought). Subquestions may also be considered. The Evidence Review and Synthesis Centre then produce a protocol and review texts they deem relevant. The result is a lengthy synthesis document that answers the PICO question(s), assesses the quality of the research evidence, considers harms of the intervention identified in the intervention studies, and explores what is known about patient values and preferences related to the intervention. From the completed evidence review, the topic working group then brokers their final recommendations, which are reviewed by the CTFPHC itself.

In March 2015, the *Canadian Medical Association Journal* published the CTFPHC's newest obesity management guideline (Brauer et al. 2015). The texts included in this analysis include the published guideline (Brauer et al. 2015), the comprehensive systematic review document (Peirson et al. 2014), clinician summary (CTFPHC 2016a), and algorithm (CTFPHC 2016b).

The Canadian Obesity Network

The Canadian Obesity Network (CON) was founded in 2006 by the CIHR Networks of Centres of Excellence of Canada program (Networks of Centres of Excellence of Canada 2010). The CON aims "to improve the lives of Canadians affected by obesity through the advancement of anti-discrimination, prevention, and treatment efforts" (Canadian Obesity Network n.d.). The CON developed a tool to improve obesity management in primary care, completed by a Working Group struck for the task with funding from the federal government.

The result—the *5As of obesity management*TM (5As)—adapts a pre-existing mnemonic for brief primary care counselling. In 2012, the CON started circulating the 5As texts. The 5As texts analyzed here are the 5As practitioner guide booklet (Canadian Obesity Network 2012), 3-D desktop tool, checklist designed for medical charts, and an "obesity facts" patient handout.

Results and Discussion

The CTFPHC guideline: reproducing the anti-obesity frame

The guideline, algorithm, and clinician summary texts mirror each other closely, while the 276-page evidence synthesis

prepared to inform the guideline is much more detailed, offering insight into what knowledge was filtered in or out by the brokers. The CTFPHC preventive care guidelines discuss prevention for two groups: those classified as normal and those as overweight or obese.

The guideline, algorithm, and clinician summary recommend primary care clinicians to measure height and weight of adult patients, to calculate body mass index (BMI) at "appropriate primary care visits". For those classified as obese, clinicians are also to calculate diabetes risk. These two classifications—BMI and diabetes—constitute the core assessment.

The guideline brokers recommended that clinicians:

- 1) Not offer formal, structured interventions to prevent weight gain to those with bodies classified as normal
- 2) Offer to refer or refer adults who are classified as overweight or as obese (BMI between 25 and 40) to structured behavioural interventions² aimed at weight loss
- 3) Not routinely offer pharmacologic interventions for weight loss to adults who are classified as overweight or obese.

Excluded are those who are pregnant and/or have (diagnosed) eating disorders. Wording of the clinician summary and algorithm documents is very similar to the guideline, but for those patients deemed candidates for the behavioural intervention, the algorithm adds the phrase "have a discussion" prior to referral, without additional information.

The guideline authors justify these recommendations based on randomized controlled trials. To be included, the studies had to be (a) conducted in primary care settings or a setting where primary care clinicians can refer patients and (b) tested for impact on weight. Weight is a purposeful choice of outcome: "Strategies for maintaining health, such as increased physical fitness, that did not emphasise or consider weight loss, were not reviewed" (p. 185) (Brauer et al. 2015). The authors identified modest, short-term weight loss³ as a benefit of structured, behavioural interventions. Long-term outcomes were largely unknown, beyond a risk reduction of developing diabetes for those originally classified as "high risk". The authors anticipate no harms from this intervention, based on the lack of harms identified in clinical trials. They acknowledge that they know little about "patients' values and preferences" for this intervention.

² Structured behavioural interventions are "behavioural modification programs that involve several sessions or interactions that take place over weeks to months. Interventions examined for prevention of weight gain included behaviourally-based prevention interventions focused on diet, increasing exercise, making lifestyle changes, or any combination of these." (p. 187) (Brauer et al. 2015).

³ Later in the text, the authors state this is "about 3 kg" (p. 190) and suggest clinicians disclose this to patients.

Other sources of knowledge appear in the guideline, though are not central to the authorized clinical actions. The authors note that changes in the population's BMI distribution are likely due to environmental changes. In a section titled "other considerations", subgroups with higher prevalence rates of obesity are flagged (e.g., Canada's Indigenous peoples), as is the need for multisectoral solutions. Later in the text, the "patient values and preferences" section outlines reasons that patients may decline to participate, such as past stigmatizing experiences, variations in access to resources, cultural identity, and more. None alter the core recommended action. The suggested performance measurement indicators also reflect their core arguments about what constitutes good care: "the proportion of adults with overweight or obesity (in particular those at risk of diabetes), in whom the weight loss interventions are offered or discussed, who participate in structured programs and who achieve weight loss" (p. 192) (Brauer et al. 2015).

The simplicity of the guideline is the result of multiple active brokering choices. This becomes clear when comparing the guideline text to the systematic review written to inform it. The systematic review contains many more caveats and causes (Peirson et al. 2014). For example, in the section about aetiology, risk factors, and natural history of obesity, the authors frame obesity as multifactorial, involving metabolic, hereditary, environmental, and medication-related influences in addition to lifestyle-related ones. However, these influences are described as harder to assess and quantify, and "less

strongly linked" to obesity compared to lifestyle (an uncited claim in a heavily cited text). More limitations to the utility of BMI are flagged compared to the eventual guideline. The review promotes a combination of BMI and waist circumference biomeasures to determine risk. In the systematic review, authors note that weight reduction is a controversial therapy. The CTFPHC brokers excluded or downplayed these cautions and other limits in the guideline, reproducing the simplistic anti-obesity frame, where obesity is the result of problematic behaviours.

The CON: expanding the frame to include stigmatization

The four 5As texts included in this analysis match each other precisely, with the practitioner's guide having the most content. The texts are unreferenced, using a visual genre that is closer to advertising than a scientific text (exemplified in Figs. 1, 2, 3, and 4).

Prior to making specific recommendations for action, the 5As practitioner's guide and patient handout foreground five key principles for obesity management that speak directly to their selected frame: "obesity is a chronic condition"; "obesity management is about improving health and wellbeing, and not simply reducing numbers on the scale"; "early intervention means addressing root causes and removing roadblocks"; "success is different for every individual"; "a patient's 'best' weight may never be an 'ideal' weight". The desktop tool, the

Fig. 1 5As—assess obesity class and stage

Fig. 2 5As—assess for obesity drivers, complications, and barriers

practitioner guide, and the charting checklist then guide clinicians through a chronological series of five tasks. These five tasks are 5As: (1) ask permission to discuss weight; (2) assess current state of body, causes of and barriers to obesity management; (3) advise about risks and treatment options; (4) agree on goals; (5) arrange appropriate referrals and follow-up.

The first procedural step—the “ask”—in the practitioner’s guide reads as follows: “Weight is a sensitive issue. Many patients are embarrassed or fear blame and stigma” (Canadian Obesity Network 2012). Asking is developed as more than a simple question, including the following: mitigating against assumptions about motivation or lifestyle;

Fig. 3 5As—assess for root causes of weight gain

Fig. 4 5As—advise on treatment options

exploring readiness for change via a patient-centred and collaborative approach; using motivational interviewing strategies; attending to the physical space to ensure comfort.

If patients consent, clinicians are to assess the current state of the body (Fig. 1), causes and complications of weight gain, and barriers to treatment (Figs. 2 and 3).⁴

Using the information gained through these varied assessments, primary care clinicians are to decide what treatment approach is most promising for a given person. Figure 4 outlines treatment options to consider, with each developed in more detail in subsequent pages of the guide. Treatment varies by stage of obesity, root cause of weight gain (and whether it is amenable to change), and specifics about the person's life. The 5As encourages clinicians to work with patients to “agree” (the fourth A) on realistic goals for treatment, in part through use of motivational interviewing or other established behaviour change support strategies. The final A involves arranging appropriate referrals and follow-up.

What is in a frame?

The CTFPHC guideline and the CON's 5As authorize different clinical practices, while both mobilizing an anti-obesity frame where (most) fatness is understood as pathological. Starting from this common root, the knowledge brokers

include and prioritize different sources of knowledge in the procedural standards. To compare the two procedural standards and knowledge brokering processes, I discuss each in relation to their positions on three contemporary debates about obesity and fatness: how to best identify the object of obesity, obesity as chronic or reversible, and fat-related stigmatization.

Knowing obesity

BMI is a calculation based on a longstanding assumption that a relationship between height and weight is indicative of health (Nicholls 2013). BMI and the standardized classification system to interpret it have long defined the object called obesity and are widely used in epidemiological analyses. When applied to individuals, the BMI has limited utility because it lacks sensitivity and specificity (Nicholls 2013). The use of discrete categories for this scalar measure minimizes differences within a category and exaggerates inter-category differences (Nicholls 2013). For example, in a representative sample of Americans, half of those classified as overweight and 29% as obese by BMI standards were metabolically healthy (Tomiya et al. 2016). Knowledge brokers decide how to address the lack of sensitivity and specificity of the BMI and imprecise relation of weight to health.

Following the CTFPHC guideline requires clinicians to know only BMI to classify a patient and determine the recommended preventive behavioural intervention. The CTFPHC guideline brokers acknowledge some problems with BMI but justify their use of it as consistent with the World Health Organization and the reviewed intervention trials. As a result,

⁴ Figures 1, 2, 3, and 4 are from the *5As of Obesity Management*™ Practitioners Guide booklet (Canadian Obesity Network, 2012). The images are unaltered, and reprinted with permission as per the Canadian Obesity Network licence under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

the CTFPHC guideline text reproduces known problems with the BMI classification system, mistranslating BMI as indicative of behaviours.

In contrast, the 5As requires that clinicians have knowledge of the body, the person's situation and history, and cause of weight gain before having any sense of what might be done. BMI is still present in the assessment, but its relevance diminished as only one measure among others. The additional physical screening classifications—waist circumference and the Edmonton Obesity Staging System—create uncertainty about whether there is a health problem to treat. However, framing as obesity as either healthy⁵ or pathological, while also framing it as chronic, creates complexity that is hard to reconcile, discussed below.

Tensions in the obesity-as-chronic frame

In the last decade, there have been active debates as to whether to frame obesity as a risk factor or a chronic disease (Ramos Salas et al. 2018). Chronicity refers to an incurable, irreversible state which can only be managed, while a risk factor narrative is more flexible about degree of modifiability. Both procedural standards state that obesity is chronic, which shifts expectations about effects of treatment.

The next questions brokers must answer include: what intervention(s) will help people with this chronic condition? What outcome(s) should clinicians seek with patients? Each knowledge broker selected among possible methods to improve the health of primary care patients. Here, the brokers differ, though behaviour changes remain central to both.

The CTFPHC guideline brokers chose behaviour change as the core intervention of interest and weight reduction as the primary outcome. This also means they excluded consideration of interventions aimed at improving health through mechanisms other than reduced weight. Improving health is (primarily) reducing weight—in this case, only a modest amount in the short term. The CTFPHC guideline emphasizes standardization of clinical assessment, treatment recommendation, outcome to be sought, and more. Individualization is simply an implementation consideration.

The 5As promotes more varied treatments for obesity and discredits weight reduction as the primary outcome to seek. The 5As brokers opt for more individualization, which follows more comprehensive assessment. Clinicians are to learn much more about the person (as per Figs. 2 and 3) to decide what might be done in service of improving health. What treatment is best for one person would be inappropriate for another, for any number of reasons. The additional recommended assessment in the 5As discredits the assumption that behaviours are at the root of all obesity, though eating and physical activity

still figure prominently (e.g., sleep and time management, for example, might “significantly improve eating and physical activity behaviours”) (Canadian Obesity Network 2012). Overall, the 5As brokers emphasize that the “good” to be sought is negotiated, not pre-determined by experimental trials or clinicians alone. Obesity management is a more involved task in the 5As than in the guideline, in part because the 5As makes obesity more complex.

The 5As assessments argue the existence of different obesities, from healthy “Stage 0 obesity” to end-stage obesity (Stage 4). The 5As assessment narrates obesity as obesities—a multiplicity in Mol's sense of the word, as an object that is more than one, but less than two (Mol 2003). Obesity-as-multiplicity developed within the 5As introduces new problems for framing obesity as chronic and incurable. The Edmonton Obesity Staging System (Fig. 2) has a “Stage 0” obesity, meaning a person whose physical health, psychological well-being, and functional abilities are unaffected by their higher weight and mass. Here, obesity is not associated with risk or disease—an argument made for over two decades by critical biomedical scholars (Lupton 2013). While addressing a longstanding erasure of healthy fat bodies in the anti-obesity frame (Lupton 2013), this healthy state is still called “obesity”, a term with pathological connotations. The commitment to differentiating healthy from unhealthy is incomplete in the 5As.

(Not)integrating knowledge of stigma

Both procedural standards mention fat-related stigmatization. For the CTFPHC authors, stigma is excluded as part of the “problem” of obesity in general, but mentioned briefly as an implementation consideration (specifically the possibility of past stigmatizing experiences with similar programs). The sole mention of stigma in the lengthy systematic review text (Peirson et al. 2014) was from the single qualitative meta-synthesis reviewed for “patients’ values and preferences”. The cited meta-synthesis focused on experiences and views of people who have participated in weight management programs. The CTFPHC brokering processes resulted in exclusion of patients’ experiences of weight-related health care more broadly considered and large tracks of fat studies and critical weight studies scholarship. The result is a guideline proposing a clinical action that characterizes stigmatization: treating a measure (BMI) as telling a truth about behaviours (Thille 2018; Throsby 2007).

The CON 5As brokers integrated information about stigmatization in clinical care better than the CTFPHC's processes. For the 5As brokers, stigmatization in clinical care is part of the problem. The texts explicitly integrate knowledge about stigmatizing clinical actions in the “ask” portion and repeatedly flag that behaviours are to be assessed directly. Keeping expectations low about the impact of behaviour change on weight reinforces the notion of chronicity and works against assumptions of high degrees of bodily malleability from

⁵ Though I question if the category name of “Stage 0 obesity” is understood widely as good health.

changing daily routines. The result is a procedural standard that actively works against parts of the common frame that reproduces fat-related stigma: that all fatness is behavioural and that all fat bodies can be made thin.

But their approach has limits in disrupting the stigmatization of fatness. In the 5As, the stigmatized mark—bodily fatness—is made more complex, and new ways to label bodies as normal/healthy and abnormal/diseased are introduced. The diagnostic processes do not treat the group as homogenized, and personal responsibility is undermined for some people diagnosed, but not all. Obesity in the CON's frame remains behavioural, at least some of the time, and the notion of peril and threat shifts only slightly by the recognition of “Stage 0 obese” bodies, which somehow are both “chronic” and healthy. The 5As change but do not completely disrupt the widespread pathological frame of fatness, which many argue is necessary to disrupting stigmatization in a more long-term sense (Lupton 2013; Cook et al. 2014).

The 5As texts discredit particular discriminatory actions in primary care that delay or limit access to appropriate clinical care. But discrediting one form of stigmatization often leads to replacements that produce the same or similar effects (Link and Phelan 2001). Similar to other medicalized and stigmatized conditions (e.g., addictions), a chronic disease frame itself does not undermine all aspects of stigma communication, an argument recently made in this journal by Brady and Beausoleil (2018).

Conclusion

Knowledge brokers promote different ways to push and pull at people's lives in the name of improving population health. They do so by deciding upon and orienting to a shared language—a shared framing of the problems, causes, and solutions. The frame chosen shapes how to intervene, and what is understood as changeable. Brokers select among existing frames for a given phenomenon, accepting and rejecting among the options.

The knowledge brokers studied here make different decisions about how to best frame obesity. The CTFPHC brokers perpetuate the core of an anti-obesity frame: predetermining, based on BMI categorizations, that people need to change their behaviours, communicates fatness as pathological and a sign of unhealthy daily routines (Lupton 2013). Supporting their chosen frame requires many exclusions, including of knowledge about stigmatization, the existence of healthy, high-BMI bodies, limited impacts of behaviour change on weight, or helpful outcomes beyond reduced weight. It also leaves other determinants of poor health—social and environmental ones—unaddressed. The CON 5As brokers frame obesity as a health problem, but also engage with particular critiques of that frame: obesity is pathological only for a subset of those categorized as obese by BMI; everyday routine behaviours may or may not be part of the

problem; stigmatization is part of the problem. Like the Canadian childhood obesity-related care guidelines Medvedyuk and colleagues examine (Medvedyuk et al. 2017), both sets of texts mention social and environmental determinants of health, but under-develop the implications, with many of the treatment possibilities focused on behaviour change.

Of note, being more scientific will not disrupt the anti-obesity frame that reinforces societal and clinical stigmatization of fatness. The CTFPHC texts have a more scientific presentation—heavily cited texts and highly routinized processes for obtaining and assessing scientific studies—yet operate within a narrower frame, excluding sources of information which would improve the quality of health care. Disrupting the negative consequences of the dominant anti-obesity frame requires reckoning with the frame itself. An anti-obesity frame supports decisions to ignore existence of healthy, larger bodies, the range of determinants of weight for preventive interventions, or relegating stigmatization to the background. The 5As brokers broaden the foundation, but run into other limitations, classifying the same person as healthy and obese (Stage 0). Change happens by changing the frame.

Similar framing problems play out in public health. To date, much public health activity uses the anti-obesity frame, emphasizing behavioural causes of body fat accumulation over others (Brady and Beausoleil 2018; Mayes 2016; Medvedyuk et al. 2017). Recent shifts to emphasizing “choice architecture” or “facilitated agency” models keep behaviours as the fundamental target, ignoring the many determinants of body weight and composition that are unrelated to behaviours (Mayes 2016; Medvedyuk et al. 2017; Brown et al. 2016; Thille et al. 2017). If the project is optimizing health for the population, how problems, causes, and solutions are framed is crucial.

I join those who argue that change in the behavioural emphasis in public health is overdue (Medvedyuk et al. 2017; Germov and Williams 1996). Choosing a frame for an intervention is not a neutral process. Recognizing this non-neutrality requires taking seriously knowledge and evidence from sources other than epidemiology and randomized clinical trials to improve population health in an equitable manner. While the anti-obesity frame dominates the Canadian public health, health policy, and clinical landscape at present (Medvedyuk et al. 2017; Ramos Salas et al. 2018; Thille et al. 2017), critical weight and fat studies scholarship and knowledge can help shift the frame.

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References

- Brady, J., & Beausoleil, N. (2018). A response to “A critical analysis of obesity prevention policies and strategies”. 108(5–6), 3. <https://doi.org/10.17269/cjph.108.6520> [published Online First: 2018-01-22].

- Brauer, P., Connor Gorber, S., Shaw, E., et al. (2015). Recommendations for prevention of weight gain and use of behavioural and pharmacologic interventions to manage overweight and obesity in adults in primary care. *Canadian Medical Association Journal*. <https://doi.org/10.1503/cmaj.140887>.
- Brown, R., Sharma, A. M., Arden, C. I., et al. (2016). Secular differences in the association between caloric intake, macronutrient intake, and physical activity with obesity. *Obesity Research and Clinical Practice*, 10(1), 243–255. <https://doi.org/10.1016/j.orcp.2015.12.003>.
- Canadian Obesity Network. (n.d.) Respect. Knowledge. Action. Our vision, mission, and strategic goals. Canadian Obesity Network. Available from: <http://www.obesitynetwork.ca/about>. Accessed 19 July 2016.
- Canadian Obesity Network. (2012). *5As of Obesity Management™ practitioner guide*. Edmonton: Canadian Obesity Network.
- Chrisler, J. C., & Barney, A. (2017). Sizeism is a health hazard. *Fat Studies*, 6(1), 38–53. <https://doi.org/10.1080/21604851.2016.1213066>.
- Cook, J. E., Purdie-Vaughns, V., Meyer, I. H., et al. (2014). Intervening within and across levels: a multilevel approach to stigma and public health. *Social Science & Medicine*, 103, 101–109. <https://doi.org/10.1016/j.socscimed.2013.09.023> [published Online First: 2014/02/12].
- CTFPHC. (n.d.) About us: Canadian task force on preventive health care. Available from: <https://canadiantaskforce.ca/about/>. Accessed 12 July 2016.
- CTFPHC. (2014). Canadian task force on preventive health care: procedural manual (archived): Canadian task force on preventive health care.
- CTFPHC. (2016a) Obesity in adults - clinician summary: Canadian task force on preventive health care.
- CTFPHC. (2016b). Obesity in adults - clinician algorithm: Canadian task force on preventive health care.
- Entman, R. M. (1993). Framing: toward clarification of a fractured paradigm. *The Journal of Communication*, 43(4), 51–58. <https://doi.org/10.1111/j.1460-2466.1993.tb01304.x>.
- Foucault, M. (1976/1990). *The history of sexuality* (Vol. 1). New York: Random House.
- Germov, J., & Williams, L. (1996). The epidemic of dieting women: the need for a sociological approach to food and nutrition. *Appetite*, 27(2), 97–108. <https://doi.org/10.1006/appe.1996.0038> [published Online First: 1996/10/01].
- Hatzenbuehler, M. L., Phelan, J. C., & Link, B. G. (2013). Stigma as a fundamental cause of population health inequalities. *American Journal of Public Health*, 103(5), 813–821. <https://doi.org/10.2105/ajph.2012.301069> [published Online First: 2013/03/16].
- Hodges, B. D., Kuper, A., & Reeves, S. (2008). Discourse analysis. *BMJ*, 337. <https://doi.org/10.1136/bmj.a879>.
- Jutel, A. (2006). The emergence of overweight as a disease entity: measuring up normality. *Social Science & Medicine*, 63(9), 2268–2276. <https://doi.org/10.1016/j.socscimed.2006.05.028>.
- Kendall, G., & Wickham, G. (1999). *Using Foucault's methods*. London: Sage.
- Larsen, L. (2011). The birth of lifestyle politics: the biopolitical management of lifestyle diseases in the United States and Denmark. In U. Bröckling, S. Krasmann, & T. Lemke (Eds.), *Governmentality: current issues and future challenges* (pp. 201–224). New York & London: Routledge.
- Link, B. G., & Phelan, J. C. (2001). Conceptualizing Stigma. *Annual Review of Sociology*, 27(1), 363–385. <https://doi.org/10.1146/annurev.soc.27.1.363>.
- Lupton, D. (2013). *Fat*. Milton Park, Abingdon, Oxon; New York: Routledge.
- Mayes, C. (2016). *The biopolitics of lifestyle: foucault, ethics and healthy choices*. London and New York: Routledge.
- Medvedyuk, S., Ali, A., & Raphael, D. (2017). Ideology, obesity and the social determinants of health: a critical analysis of the obesity and health relationship. *Critical Public Health*, 1–13. <https://doi.org/10.1080/09581596.2017.1356910>.
- Meyer, M. (2010). The rise of the knowledge broker. *Science Communication*, 32(1), 118–127. <https://doi.org/10.1177/1075547009359797>.
- Mol, A. (2003). *The body multiple: ontology in medical practice*. Durham and London: Duke University Press.
- Networks of Centres of Excellence of Canada. (2010) Canadian Obesity Network connects professionals for coordinated Canadian response to obesity. Government of Canada. http://nce-rce.gc.ca/ReportsPublications-RapportsPublications/ExcellenceNCENewsletter-BulletinExcellence/v1_i2/CONRCCO_eng.asp. Accessed 24 Oct 2016.
- Nicholls, S. G. (2013). Standards and classification: a perspective on the ‘obesity epidemic’. *Social Science & Medicine*, 87, 9–15. <https://doi.org/10.1016/j.socscimed.2013.03.009> [published Online First: 2013/05/02].
- Peirson, L., Fitzpatrick-Lewis, D., Ali, M. U., et al. (2014). Treatment of overweight/obesity in adult populations: a systematic review with meta-analyses Canadian task force on preventative health care.
- Phelan, S. M., Burgess, D. J., Yeazel, M. W., et al. (2015). Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obesity Reviews*, 16(4), 319–326. <https://doi.org/10.1111/obr.12266>.
- Puhl, R. M., & Heuer, C. A. (2009). The stigma of obesity: a review and update. *Obesity (Silver Spring)*, 17(5), 941–964. <https://doi.org/10.1038/oby.2008.636>.
- Ramos Salas, X., Forhan, M., Caulfield, T., et al. (2018). A critical analysis of obesity prevention policies and strategies. *108*(5–6), 11. <https://doi.org/10.17269/cjph.108.6044> [published Online First: 2018-01-22].
- Rose, G. (2012). *Visual methodologies: an introduction to researching with visual materials* (3rd ed.). London: Sage.
- Saguy, A. C. (2013). *What's wrong with fat?* New York: Oxford University Press.
- Saguy, A. C., & Riley, K. W. (2005). Weighing both sides: morality, mortality, and framing contests over obesity. *Journal of Health Politics, Policy and Law*, 30(5), 869–921 [published Online First: 2006/02/16].
- Shim, J. (2014). *Heart-sick: the politics of risk, inequality, and heart disease*. New York: NYU Press.
- Smith, D. (2005). *Institutional ethnography: a sociology for people*. Altamira: Lanham.
- Smith, R. A. (2007). Language of the lost: an explication of stigma communication. *Communication Theory*, 17(4), 462–485. <https://doi.org/10.1111/j.1468-2885.2007.00307.x>.
- Thille, P. (2018). Managing anti-fat stigma in primary care: an observational study. *Health Communication*, 1–12. <https://doi.org/10.1080/10410236.2018.1439276>.
- Thille, P., Friedman, M., & Setchell, J. (2017). Weight-related stigma and health policy. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne*, 189(6), E223–E224. <https://doi.org/10.1503/cmaj.160975> [published Online First: 2017/02/17].
- Throsby, K. (2007) “How could you let yourself get like that?” Stories of the origins of obesity in accounts of weight loss surgery. *Social Science & Medicine*, 65, 1561–1571. <https://doi.org/10.1016/j.socscimed.2007.06.005>.
- Timmermans, S., & Berg, M. (2003). *The gold standard: the challenge of evidence-based medicine*. Philadelphia: Temple University Press.
- Tomiya, A. J., Hunger, J. M., Nguyen-Cuu, J., et al. (2016). Misclassification of cardiometabolic health when using body mass index categories in NHANES 2005–2012. *International Journal of Obesity*, 40(5), 883–886. <https://doi.org/10.1038/ijo.2016.17>.