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Short communication

Weight-related stigma is a significant psychosocial stressor in developing countries: Evidence from Guatemala

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ABSTRACT

Weight-related stigma is established as a major psychosocial stressor and correlate of depression among people living with obesity in high-income countries. Anti-fat beliefs are rapidly globalizing. The goal of the study is to (1) examine how weight-related stigma, enacted as teasing, is evident among women from a lower-income country and (2) test if such weight-related stigma contributes to depressive symptoms. Modeling data for 12,074 reproductive-age women collected in the 2008–2009 Guatemala National Maternal-Infant Health Survey, we demonstrate that weight-related teasing is (1) experienced by those both underweight and overweight, and (2) a significant psychosocial stressor. Effects are comparable to other factors known to influence women's depressive risk in lower-income countries, such as living in poverty, experiencing food insecurity, or suffering sexual/domestic violence. That women's failure to meet local body norms—whether they are overweight or underweight—serves as such a strong source of psychological distress is particularly concerning in settings like Guatemala where high levels of over- and under-nutrition intersect at the household and community level. Current obesity-centric models of weight-related stigma, developed from studies in high-income countries, fail to recognize that being underweight may create similar forms of psychosocial distress in low-income countries.

1. Introduction

Depressive disorders are a leading cause of the global burden of disease (Ferrari et al., 2013), and seem likely to remain so for at least the next generation (Bromet et al., 2011; Lépine and Briley, 2011). While rates of depression vary from country to country, high levels of symptoms are seen in developed and developing countries alike, with women—especially during their reproductive years—consistently at higher risk overall (Grigoriadis and Erlick Robinson, 2007).

Based on studies from Anglophone countries, women's body size seems to matter for depression. Obesity in particular is well-established as a major predictor (Scott et al., 2008; Luppino et al., 2010), with women at highest body weights at greatest risk (Chen et al., 2007; Hilbert et al., 2014). While part of this risk may be related to functional challenges of living with chronic disease (Moussavi et al., 2007), the stigma of obesity itself seems to be a major contributor (Myers and Rosen, 1999; Carpenter et al., 2000; Friedman et al., 2008; Puhl and Heuer, 2010; Tomiyama, 2014). Stigma in this context refers to the process by which arbitrary moral judgments (e.g., "lazy") become attached to body size, leading to social discrediting, rejection, and marginalization (Brewis, 2014). Obesity-related stigma is increasingly recognized as a major social and economic challenge to millions in places such as the U.S. and U.K., resulting in multiple interpersonal and structural mistreatments and discriminations from poorer health care to a systematic wage gap (Carr and Friedman, 2005; Puhl and Heuer, 2009) in addition to the more proximate individual-level effects of distress, stress, and social withdrawal and exclusion. Teasing (our focus herein) is an especially powerful way that such obesity stigma is enacted, not just by strangers but also by family and friends (e.g., Taylor, 2011).

Recent research has established that obesity-related stigma is increasingly reported in many lower-income, developing countries throughout the globe (Brewis, 2011; Brewis and Wutich, 2014; Council and Placek, 2014), a concerning trend that seems to have emerged and accelerated over the last decade. The goal here is to identify if weight-related stigma may also be an emergent contributor to depressive symptoms in lower-income countries, as it is already known to be in high-income ones. Given the growing

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burden of depression and related mental illness in developing countries, the emergence of weight-related stigma as a new, culturally-based source of psychosocial distress would be extremely concerning. Women in many developing countries already struggle with other psychosocial stressors that are known triggers for depression, such as coping with food insecurity (Hadley and Patil, 2008; Weaver and Hadley, 2009), social inequalities (Patel, 2001; Lorant et al., 2003; Alvarado et al., 2007; Cifuentes et al., 2008), chronic disease (Moussavi et al., 2007), or domestic and sexual violence (Fischbach and Herbert, 1997; Campbell, 2002; Ellsberg et al., 2008); belonging to a marginalized social group (Karlsen and Nazroo, 2002; Williams et al., 2003); and living around armed conflict (Murthy and Lakshminarayana, 2006; Miller and Rasmussen, 2010; Panter-Brick, 2010; Pike et al., 2010).

Guatemala is an excellent case to consider. While there are few studies of mental health in this low-income Central American country, a 2009 national survey found that 27.8% of Guatemalans suffer from mental health disorders, with post-traumatic stress (6.9%) and depression (6.4%) among the most common (López, 2009). In addition, more women than men suffer from mental health disorders. Given the typical under-reporting of mental health disorders (Kohn et al., 2005), these rates reflect a real and poorly documented health burden in Guatemala. Recent studies have focused on the impact of violence on mental health, particularly the relationship between experiences during the 36-year civil war and prevalence of post-traumatic stress disorder (Polanco et al., 2012; Branas et al., 2013). In addition to high rates of contemporary and historical violence that disproportionately affect rural and indigenous populations (Miller, 1996; Sabin et al., 2006; Foxen, 2010), Guatemala exhibits several factors known to contribute to mental illness, including high rates of food insecurity (Chaparro, 2008), pervasive social and economic discrimination (Bruni et al., 2009; Gindling and Trejos, 2013), increasing rates of gender-based violence (Carey Jr. and Torres, 2010; Ogrodnik and Borzutzky, 2011; Halvorsen, 2014), and a decades-long civil war (Miller, 1996; Sabin et al., 2006; Foxen, 2010).

Additionally, obesity rates (BMI $\geq$ 30) among women aged 15–49 have nearly doubled in the last 20 years, from 8.0% in 1995 to 15.4% in 2009 (INE, 2011). Obesity risk in Guatemala is compounded by high rates of childhood malnutrition (De Onis, Monteiro et al., 1993; De Onis, Blössner et al., 2012) and food insecurity (Melgar-Quiñonez, 2010), both of which increase risk of excess weight gain in adulthood (Hoffman et al., 2000; Gluckman and Hanson, 2004; Morales-Ruán et al., 2014). These so-called 'dual burden' rates of malnutrition and obesity are higher in Guatemala than most other studied countries (Jehn and Brewis, 2009). There is little information about weight stigma in Guatemala, although some research among schoolchildren demonstrates stigma against both obese and underweight bodies, with the latter exacerbated by experiences of food insecurity (Maupin and Brewis, 2014). In this paper, we examine the distribution of women's experience of weight-related teasing—a proxy for the social enactment of stigma—across different body sizes and test if it has any apparent effects on depressive symptoms in Guatemalan women, taking into account body size, as well as other factors already known to impact depression among women in developing countries.

Data are from the 2008–2009 nationally representative Guatemala National Maternal-Infant Health Survey (Encuesta Nacional de Salud Materno Infantil or ENSMI) (INE, 2011). Our final analytic sample includes 12,074 of the 16,819 women who completed interviews (Table 1). The major reason for exclusions was because of missing data on domestic abuse/sexual violence (N = 4264). Analyses without this exclusion criteria and a larger sample are provided in the supplemental materials (Supplemental Materials Table S6).

Table 1
Sample descriptives and distribution of weight-related stigma by predictor.

	Distribution of variables		Percent experienced weight-related teasing	
	N	%	%	P-value
Residence				
Urban	5148	42.6	11.5	0.08
Rural	6926	57.4	10.5	
Ethnicity				
Ladina	6099	50.5	12	<0.001
Indigenous	5975	49.5	9.8	
Relationship status				
Married	10,817	89.6	10.7	0.03
Single	1257	10.4	12.7	
Age category				
15–20	1077	8.9	10.8	<0.001
20–25	2082	17.2	11.4	
25–30	2637	21.8	12.4	
30–35	2374	19.7	11.6	
35–40	1786	14.8	9.9	
40–45	1201	9.9	8.7	
45–50	917	7.6	8.4	
Wealth quintile				
1 (Lowest)	2687	22.3	9.3	0.04
2	2635	21.8	11.2	
3	2507	20.8	11.7	
4	2474	20.5	11.6	
5 (Highest)	1771	14.7	10.7	
BMI classes				
<18.49	349	2.9	15.5	<0.001
18.5–24.90	4765	39.5	10.8	
25–29.90	4478	37.1	8.7	
30+	2482	20.9	14.4	
Food insecurity				
Food secure	5002	41.4	9	<0.001
Moderately insecure	5040	41.7	11.5	
Severely insecure	2032	16.8	14	
Domestic or sexual violence				
Yes	1239	10.3	22.3	<0.001
No	10,835	89.7	9.6	
Chronic health problem				
Yes	1027	8.5	10.6	<0.001
No	11,047	91.5	14.4	
Weight-related teasing				
Yes	1315	10.9	–	–
No	10,759	89.1	–	–
Psychological distress				
No distress	4152	34.4	5	<0.001
Mild distress	4026	33.3	10.6	
Moderate-to-severe	3896	32.3	17.5	

p-values based on Chi-square tests of independence.

2. Methods and materials

2.1. Psychological distress

The ENSMI 2008–2009 contained nine items related to the frequency of experiencing symptoms of psychological distress within the last four weeks (Table S1), scaled from 0-never to 3-always, summed to a score out of 27. This score was collapsed into three categories, with scores of 0–3 indicating little or no psychological distress, 3–9 mild distress, and 9–27 moderate-to-severe distress. Analysis using alternative cut-points did not qualitatively change the results and is presented in the supplemental materials (Supplemental Materials Table S5).

2.2. Weight-related teasing

The ENSMI asked respondents: "¿El peso que tiene actualmente