Indications of Increasing Social Rejection Related to Weight Bias

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Abstract

Background. Bias and stigma are well-established barriers to improving public and personal health. Bias against people with obesity has been reported to have worsened as the prevalence of obesity has increased. The present study measured changes in public attitudes about obesity and people with obesity over time.

Methods. Consecutive samples totaling 73,009 U.S. adults completed a series of anonymous, voluntary online surveys between Feb 2013 and Apr 2015. Respondents completed self-report measures assessing perceptions of obesity. Beginning in October 2014, measures of blame for obesity, social distance from people with obesity, and fat phobia (explicit weight bias) were also collected. Descriptive statistics were calculated and analyzed to identify significant trends.

Results. Explicit weight bias as measured by the Fat Phobia Scale was unchanged between Oct 2014 and Apr 2015 at a moderately high mean value of 3.6 on a 5-point scale. Social acceptance of employees, teachers, or family members with obesity decreased in the same period. Between Feb 2013 and Mar 2015, public perceptions of obesity as a "personal problem of bad choices" declined modestly.

Conclusions. These data suggest that the public increasingly understands that obesity is more than a simple problem of personal responsibility. But that understanding is not translating into improved social acceptance for people with obesity. Social acceptance of people with obesity in education, employment, and family relations may be declining. Continued monitoring of public attitudes is essential to determine how these trends will evolve. Weight bias remains a significant source of harm to people living with obesity and a significant impediment to progress in reducing obesity's adverse effects.

Introduction

Obesity is a complex chronic disease that is often resistant to behavioral and medical treatment. Pervasive bias has been found to reduce quality of life for individuals with obesity and interfere with efforts to address the harm caused by this disease.[1] Evidence of bias against individuals with obesity has been documented across the lifespan and is common in education, media, healthcare, employment, and interpersonal relationships.

Bias against people with obesity has been reported to have worsened as the prevalence of obesity has increased. The prevalence of weight discrimination experienced by U.S. adults increased markedly between 1995 and 2006.[2] Between 1961 and 2001, stigmatization of children with obesity increased by approximately 40%.[3]

The present study was designed to assess current public attitudes about obesity and trends related to weight bias.

Methods

Consecutive samples totaling 88,456 U.S. adults completed a series of anonymous, voluntary online surveys between Feb 2013 and Sep 2015. Characteristics of the survey samples are summarized in Table 1.

Table 1: Survey Sample Characteristics

Survey Dates	Primary Measures			
	Obesity Perceptions	Blame	Social Distance	Fat Phobia
	2/2013 1/2015 3/2013 3/2015 8/2013 5/2015 5/2014 7/2015 9/2014 9/2015 11/2014	11/2014 1/2015 3/2015 5/2015 7/2015 9/2015	10/2014 12/2014 2/2015 4/2015 6/2015 8/2015	10/2014 1/2014 4/2015 7/2015
Sample Size				
N	56,602	8,342	21,512	2,000
Gender				
M	47%	56%	59%	49%
F	53%	44%	41%	51%
Age				
18-24	18%	16%	17%	13%
25-34	28%	22%	22%	17%
35-44	16%	16%	16%	18%
45-54	15%	17%	17%	19%
55-64	16%	18%	17%	16%
65+	8%	12%	11%	17%

Google Consumer Surveys[4] were employed to collect data for the obesity problem frame, obesity blame, and social distance questions. Data was collected separately for each question in the surveys to eliminate the possibility that a response to one question could influence responses to other questions. Google Consumer Surveys infers

respondent age and gender based on the website user's browsing history and location determined from the Internet provider address. In order to reduce bias in aggregate statistical reporting, Google Consumer Surveys also provide post-stratification weighting based on age, gender, and region. The effect yields a more accurate result with lower root mean square error and reflects a better representation of national responses.

Data for the short form of the Fat Phobia Scale[5] were collected by Lab42,[6] a professional research organization with capabilities for collecting data from longer questionnaires than Google Consumer Surveys. The sample was recruited from online social media users, and quotas for age and gender were used to ensure that the sample was representative of the U.S. adult population.

Survey questions are outlined in Table 2. Descriptive statistics were calculated and analyzed to identify significant trends. Significance of trends was evaluated with general linear models and binomial regression using JMP Pro version 11.

Table 2: Survey Questions

Obesity Perceptions
Which phrase comes closest to describing the type of problem that you think obesity is?
○ A personal problem of bad choices   ○ A community problem of bad food & inactivity
○ A medical problem   ○ A totally different type of problem

Obesity Blame
How strongly do you agree or disagree? (5-point scale)
• A person with obesity is personally responsible for becoming obese.
• If a person has obesity, it is their own fault.
• The cause of obesity is beyond the control of a person with obesity

Social Distance
How strongly do you agree or disagree? (5-point scale)
• I wouldn't mind having a person who has obesity in my car pool every day.
• I wouldn't mind spending an evening socializing with a person who has obesity.
• I would avoid talking to a person with obesity if possible.
• If I were an employer, I would interview a person who has obesity for a job.
• It would be fine if a person who has obesity became my children's teacher.
• I wouldn't mind if a person who has obesity married into my family.
• I wouldn't mind if a person who has obesity worked together with me at my workplace.
• I wouldn't mind if a person who has obesity moved in next door to me

Fat Phobia
Please choose the circle closest to the adjective that you feel best describes your feelings and beliefs about obese or fat people.

|			
Lazy ○ ○ ○ ○ ○ Industrious		Weak ○ ○ ○ ○ ○ Strong
No Will Power ○ ○ ○ ○ ○ Will Power		Self-indulgent ○ ○ ○ ○ ○ Self-sacrificing
Attractive ○ ○ ○ ○ ○ Unattractive		Dislikes Food ○ ○ ○ ○ ○ Likes Food
Good Self Control ○ ○ ○ ○ ○ Poor Self Control		Shapeless ○ ○ ○ ○ ○ Shapely
Fast ○ ○ ○ ○ ○ Slow		Undereats ○ ○ ○ ○ ○ Overeats
Having Endurance ○ ○ ○ ○ ○ Having No Endurance		Insecure ○ ○ ○ ○ ○ Secure
Active ○ ○ ○ ○ ○ Inactive		Low Self-esteem ○ ○ ○ ○ ○ High Self-esteem

Results

Explicit weight bias as measured by the Fat Phobia Scale was moderately high and increased slightly, but not significantly (p=0.17, regression), between Oct 2014 and Jul 2015 from 3.54 to 3.60 on a 5-point scale (Figure 1).

Figure 1: Fat Phobia Scale Tracking
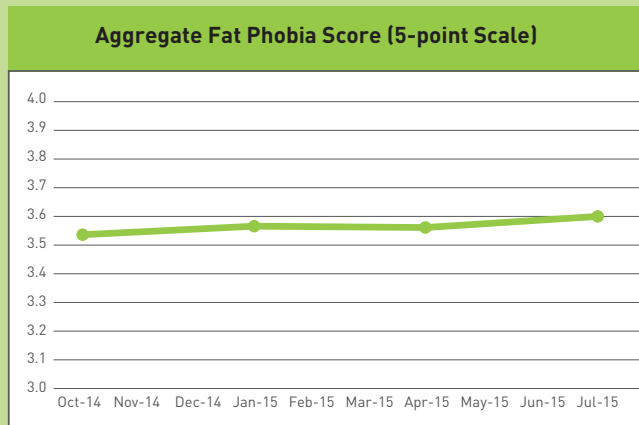
Aggregate scores for social acceptance of people with obesity, as measured by the social distance survey questions, declined significantly (p=0.0001, regression) between 2014 and 2015 (Figure 2).

Figure 2: Aggregate Social Acceptance
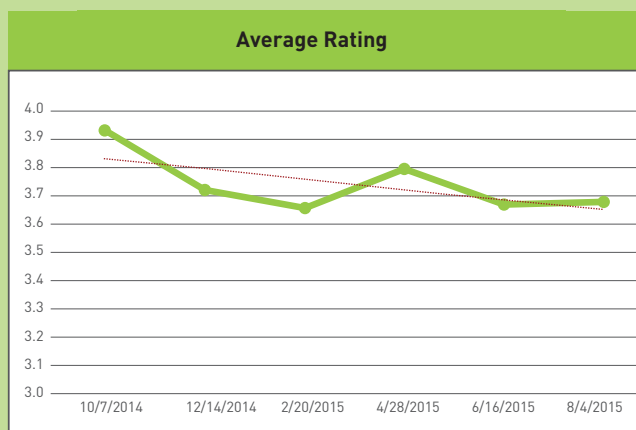
Between Feb 2013 and Sep 2015, the proportion of the public that views obesity primarily as a "personal problem of bad choices" declined modestly (p=0.0004, binomial regression) from 44% to 36% (Figure 3).

Figure 3: Prevalence of Perception That Obesity Is a "Personal Problem of Bad Choices"
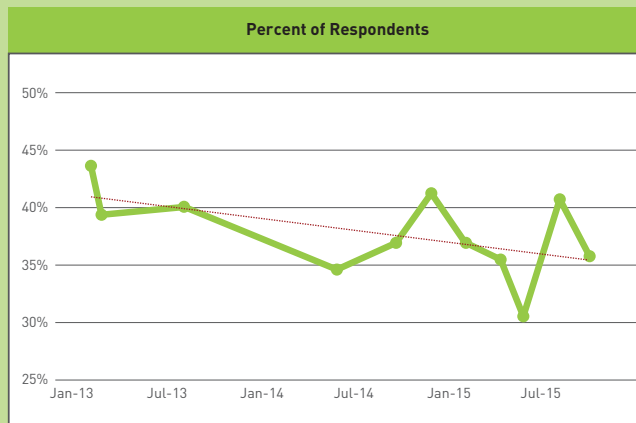
Agreement with statements regarding explicit blame for obesity (Figure 4) reveals a more complex dynamic. Between Nov 2014 and Sep 2015, the public grew less inclined to agree with the statements that people with obesity are "personally responsible for becoming obese" (p=0.0220) or that "it is their own fault" if a person has obesity (p<0.0001). Over the same time period, though, the public became more likely to disagree with the statement that "the cause of obesity is beyond the control" of a person who has it (p<0.0001).

Figure 4: Agreement with Explicit Blame for Obesity
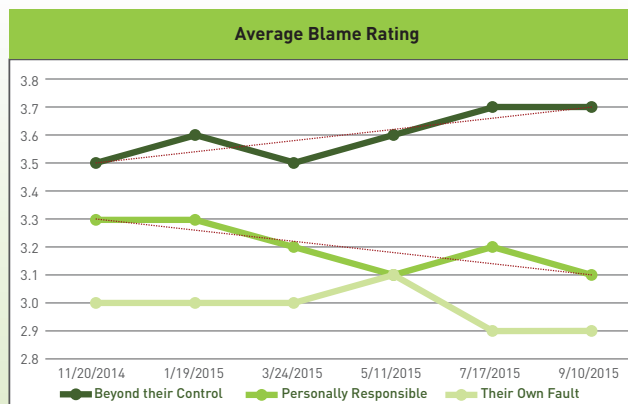
Analysis of variance revealed that men are significantly more likely to view obesity as a personal problem of bad choices (p<0.0001), more likely to agree that people with obesity are personally responsible for their condition (p=0.0342), and more likely to be express less social acceptance of people with obesity (p<0.0001).

Discussion

These findings suggest that the public increasingly understands that obesity is more complicated than simplistic notions of personal responsibility or blame. Public rebuke of examples of "fat shaming" has grown more common since 2012 in social media and news reports.[7] Growing attention to this concern may be related to the changing public perceptions documented here. At the same time, findings from this study show that the public nevertheless continues to view factors within personal control as contributors to obesity. That view may help explain the declining trends observed in social acceptance of individuals with obesity.

In particular, acceptance of people with obesity may be declining in education, employment, and family relationships. That possibility is especially troubling in light of health effects associated with social isolation.[8]

Continued monitoring of public attitudes is essential to determine how these trends will evolve. Weight bias remains a significant source of harm to people living with obesity and a considerable impediment to progress in reducing the obesity's adverse effects.

Acknowledgements and References

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