

## Abstract

Recent research has shown that individuals living with overweight, or obesity often experience stigma in the form of negative attitudes and discriminatory actions aimed at them solely because of their weight. Nurses, physicians, medical students, dietitians, psychologists and even providers specializing in obesity treatment have reported negative biases towards patients living with obesity.<sup>1</sup> Studies suggest that spatial planning and health care environment design and layout may contribute to weight bias, also called weight stigma or weight discrimination, among patients living with overweight or obesity. Spatial planning and health care environment design in the US is generally conducted to accommodate patients with socially acceptable body weights excluding those living with body sizes outside socially accepted norms. This interdisciplinary mixed-methods study aims to assess the extent of weight bias in the primary health care setting in Central Texas. The extent of weight bias will be evaluated through the spatial perspective, nurses' and providers viewpoints and patients' experiences. The results of this study will be used to provide a physical intervention guide for health care administrators to implement changes that address contributors to weight bias in their primary care settings.

## **Research Objective**

To understand weight bias in the primary care setting from:

- a spatial perspective,
- nursing & providers' viewpoints,
- the patients' experience.



# Weight Bias Defined by Design

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## Background

#### What is weight bias?

Weight bias, also known as weight discrimination or weight stigma, is defined as negative attitudes toward and beliefs about others because of their body weight or body size. Weight stigma, a product of weight bias, is a social sign or label affixed to an individual who is a victim of weight bias. Weightbased discrimination is the enactment of weight bias and stigma. In the figure below, Authors Tylka, et al., illustrate a theoretical model of weight stigma. This figure represents the complex relationship of weight stigma with internalized weight stigma, the social devaluation that an individual perceives or faces due to their weight, psychological well-being, physical health, appearance of self, and promotion of body shame.<sup>1</sup>



#### **Does weight bias occur in health care settings?**

- Weight bias commonly occurs in health care settings, especially against those in larger bodies.<sup>2</sup> In fact, it is reported that physicians are the second most common source of weight stigma and discrimination.<sup>2</sup> Health care professionals are often unconscious of their own internal bias and outward display of
- stigmatizing behaviors toward those living in larger bodies.<sup>2</sup>

#### How can clinicians promote weight discrimination?

- Avoiding eye contact or physical touch with an individual in a larger body
- Negative assumptions and stereotypes
- Chairs in waiting rooms that are not properly sized to fit all individuals' shapes and sizes
- Improperly sized medical equipment including blood pressure cuffs, scales, exam tables and gowns
- Providing unsolicited or oversimplified weight loss advice
- Lower quality health care<sup>3</sup>

#### How does weight bias in health care impact patients?

Weight bias has been linked with patient reluctance to seek medical care, delayed preventative care, and canceling medical appointments.<sup>2</sup> Patients who experience weight bias may be at higher risk of binge eating, avoidance of physical activity, depression, anxiety, and poor body image. Participants in the Midlife in the United States (MIDUS) study who experienced weight discrimination were approximately 2.5 times more likely to become obese at study follow-up.<sup>4</sup> Data from the same study suggests that weight discrimination is associated with nearly a 60% increased risk of mortality. <sup>4</sup>

## Hypotheses

- 1. Clinical spatial attributes (e.g. space layout, furniture arrangement), availability and accessibility of inclusive equipment and furniture, will be inversely associated with patient weight bias.
- 2. Nurses and providers will have limited understanding of weight bias or it's impact on patients' experiences.
- 3. Weight bias will be positively associated with patient body mass index and inversely associated with primary care visits.

# Methodology

This interdisciplinary, mixed-methods study will combine both qualitative and quantitative data to develop a deeper understanding of weight bias and determine practical strategies to decrease weight bias in the primary care setting. To understand weight bias from a spatial perspective a physical space assessment including floor plan and furniture analyses and patient and provider behavior mapping and tracking will be conducted. Floor Plan & Furniture Analysis will be used to determine whether and to what extent the hospital rooms, bathrooms, corridors, doors, waiting rooms, and supply rooms are designed to accommodate patients and staff living with overweight or obesity. **Behavior** Mapping & Tracking will be used to capture the aggregated patterns of patients' and providers' distribution and interactions throughout the space. To understand providers' viewpoints and patients' experiences of weight bias we will administer online surveys to patients and providers. We will also conduct focus groups with patients and in-depth interviews with providers to determine barriers and solutions to implementing strategies for eliminating weight bias in their primary clinic.



## **Future Directions**

Inclusive treatment of patients living with obesity and overweight involves effective medical care, accessible medical equipment and ease of interactions with providers. Administrators, stakeholders, patients, and providers must be involved in every aspect of this study. This novel study will be a first attempt to address and analyze spatial errors that promote weight bias in the primary health care space. Findings from this work will be used to provide a physical intervention guide for health care administrators to implement changes that address contributors to weight bias.



## References

1. Tylka, et al. Journal of Obesity. 2014 2. Phelan et al. obesity reviews. 2015 3. Obesity Action Coalition. Understanding obesity stigma brochure. 2016 4. Sutin et al. Psychological science. 2015

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