"Does Everyone Have to be Skinny?": Addressing Weight Stigma in an Outpatient Pediatric Wellness and Weight Management Clinic (Raleigh, North Carolina) by Erika Meier

A paper submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for the degree of Master of Public Health in the Department of Nutrition

Chapel Hill

December 7, 2017

Approved by:

[Signature]

MPH Paper Advisor (signature & date)
I. Abstract

Weight stigma is a growing concern as the focus on overweight and obesity increases in clinical practice. Its negative effects on children’s emotional well-being, healthcare quality and patient outcomes cannot be ignored. An outpatient clinic specializing in pediatric wellness and weight management must address weight stigma as part of the etiology of obesity. This proposed intervention seeks to reduce stigma and improve the quality of patient care through increasing awareness and educating staff, patients and their families about the harmful effects of weight stigma, and modifying the clinic physical environment to reduce unintentional stigma. Clinic staff will complete an Implicit Association Test for weight bias and attend two presentations, one covering weight stigma and including a video about weight stigma in healthcare, and the other focused on patient communication and talking with patients about weight. Staff will also post a mission statement addressing weight stigma. Parent education will take place through patient handouts and a new intake question probing for weight-based teasing. Finally, physical clinic components will be modified to create a more welcoming environment for people of all sizes including adding sturdy, armless chairs to the waiting room, purchasing larger gowns for adolescents with higher weights, and install a curtain to provide a semi-private weighing area. Stigma reduction outcomes will be evaluated through increases in staff scores on two measures of obesity stigma, the Attitudes Toward Obese Persons scale and Beliefs About Obese Persons scale. The quality of care outcome will be measured through a patient survey, and all results will be summarized and provided to the clinic director.

II. Introduction: Significance of Weight Stigma

What is Weight Stigma?

The increases in overweight and obesity prevalence in US children have been of concern to public health and medical professionals alike for several decades. According to the CDC, as of 2013-2014, 16% of US youth ages 2-19 have a BMI that is classified as overweight and another 17% are classified as obese\(^1\). These numbers increase with age throughout childhood and into adulthood, where 38% of adults have a BMI classified as obese\(^2\).

Weight stigma is an often-overlooked constituent of the consequences of obesity. Weight bias consists of negative implicit and explicit attitudes, stereotypes, and prejudices toward people perceived as having excess weight or obesity. Weight stigma is enactments of those attitudes as discrimination, shaming, or mistreatment, and is considered by some the last socially acceptable form of bias\(^3\). The social acceptability of weight stigma is often rooted in part by a mistaken belief that treating people harshly because of their weight will motivate change, and that excess weight is predominantly an issue of personal responsibility and self-control\(^4\text{-}^6\). These perspectives overlook the multifaceted etiology of obesity including genetic, environmental, psychosocial, behavioral, and economic components\(^7\).

Discrimination, shaming, and prejudice toward people perceived as overweight has been documented since the 1960’s\(^3\). A comparison across several measures of bias showed a significantly higher level of bias against people who are obese than people who are gay or
Muslim. Obesity stigma has increased among children between 1961 and 2001. Harassment because of weight is the most common form of bullying experienced by girls and the second most common for boys. Additionally, children with higher weights are just as likely to express stigmatizing attitudes as children with “normal” BMIs, indicating that internalized weight bias, defined as self-directed feelings of worthlessness because of weight and fear of experiencing stigma, may be increasing. Weight stigma is pervasive, damaging, and often seen as acceptable in our society.

**Costs of Weight Stigma**

Weight stigma adversely affects multiple dimensions of life for children and adolescents, including self-esteem and body image, social relationships, education, and healthcare. A 2003 study showed lower self-reported Quality of Life measures in children with severe obesity than for children with a healthy BMI. The American Academy of Pediatrics released a policy statement in 2017 highlighting the negative effects of obesity stigma including stereotyping, teasing, and lower academic expectations from peers, parents, educators, the media, and healthcare providers. Children with higher weights are more likely to experience weight-based bullying or teasing from peers.

Weight stigma has serious physical and psychosocial health consequences. Weight stigma has been linked to chronic stress, which increases cortisol, stimulates appetite and adaptive eating behaviors due to physiology, and thus may lead to further weight gain, continuing the cycle. An observational study of weight stigma in girls ages 10-19 showed that girls who reported experiencing weight stigma at age 10 had a higher BMI at age 19 than girls who had not. Adolescents who experienced perceived stigma had higher blood pressure. Internalized weight bias is associated with body dissatisfaction, low self-esteem, depression, and binge eating behaviors. Adolescents, especially girls, with overweight and obesity are more likely to engage in extreme dieting and disordered eating.

Healthcare providers including doctors, nurses, medical students, and dietitians report weight bias toward overweight and obese patients. Implicit and explicit weight bias is prevalent among physicians, dietitians, and other healthcare workers, even those who specialize in weight management and obesity treatment. Weight bias from physicians can contribute to poorer patient care, less time spent with patients, and decision-making based on stereotypes. This can lead to poorer overall communication, increased stress, decreased appointment attendance by patients, increased mistrust of providers, and lower compliance with recommendations. It negatively affects patient-provider relations, since health care providers spend less time educating patients they perceive to be non-compliant. The specific language that healthcare providers use to talk about weight may be perceived by parents of patients as stigmatizing, blaming, desirable, or motivating, which may influence motivation and compliance to recommendations and outcomes.

Pediatric patients with a BMI above the “normal” range face many challenges in our society, including weight stigma. This is an important factor that must be considered in any treatment setting that seeks to help patients with overweight or obesity.
III. Need for Addressing Weight Stigma in a Wellness and Weight Management Clinic

About the Clinic and Patient Population

The Wellness and Weight Management Clinic (WWMC) at Ann and Robert H. Lurie Children’s Hospital in Suburban Cook County, IL, is an outpatient pediatric clinic which utilizes a multidisciplinary team approach to treat children ages 0-18 with a BMI greater than the 85th percentile for their age, which is the definition of overweight for children. Children may be referred by their pediatrician or self-referred by parents with concerns about their child’s weight. The interdisciplinary team consists of 3-4 providers which include pediatricians and an advanced practice nurse, two dietitians, and a medical assistant. The clinic operates twice per week and serves approximately 15-20 patients each week.

The patient population at WWMC has a high risk for weight stigma and its associated consequences. The patient population primarily resides in Suburban Cook County, IL, which includes the city of Chicago and surrounding suburbs, and has a higher prevalence of childhood obesity than the national average. The combined prevalence of overweight and obesity in 2011-2012 in Suburban Cook County (SCC) was 33%, 42%, 40% in kindergarten, 6th graders, 9th graders respectively, which was higher than the national average at 24%, 39% and 32% for each group23. See Table 1 for details.

<table>
<thead>
<tr>
<th>Kindergarten (4.5–6.5 years old)</th>
<th>6th Grade (10.5–12.5 years old)</th>
<th>9th Grade (13.5–15.5 years old)</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Overweight</td>
<td>% Obese</td>
<td>% Overweight</td>
</tr>
<tr>
<td>SCC</td>
<td>14.9</td>
<td>17.9</td>
</tr>
<tr>
<td>U.S.</td>
<td>11.4</td>
<td>12.7</td>
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</table>


Need for Intervention

A clinic that specifically seeks to treat patients with weight-related issues must have a clear understanding of the influence of weight stigma. This begins with clinicians. Physicians and family members are reported to be the most common sources of weight bias24. A study by Schwartz et al. demonstrated that anti-fat bias as measured by the Harvard Implicit Association Test is held by obesity specialists in both direct clinical care and other roles20. Therefore, increasing awareness of clinic staff’s own biases is an important first step. An interview with clinic dietitian L. Somers, RD (October 2017, personal communication) reported she and other clinic staff sometimes felt unsure of how to sensitively talk about weight with patients and their families. Mikhailovich and Morrison report that 20% of doctors feel uncomfortable when discussing a child’s weight with parents25. A large sample of 445 US parents reported they prefer terms such as “weight” or “weight problem” over words such as “fat” or “obese” which are seen as more stigmatizing and less motivating than more neutral terms22. Educating staff is an important second step to improving staff comfort and quality of patient care.

The clinic environment is also a potentially stigmatizing element in the patient experience. Having chairs that are too small for patients or their families in the waiting
room, gowns or equipment that are too small, and being weighed in a hallway or non-private place can all contribute to feelings of shame, embarrassment, or a sense of not belonging. L. Somers, RD (October 2017) noted at times the gowns used during weighing and the physical exam were too small or patients had to wear two of them because of embarrassment. She reported several patients refused to change into the gown and at least one child refused to be weighed and measured altogether. The scale and stadiometer are located in a hallway outside the exam rooms with people walking by. Creating a non-stigmatizing, weight-neutral clinic environment may reduce these feelings of embarrassment and thus the harmful aspects of a physical environment that is not inviting or comfortable to patients of higher weight.

Parents and caregivers play an important role in the family in modeling healthy behaviors and attitudes toward weight, but can also be a source of weight stigma or teasing. Over one third of students surveyed at a weight-loss camp reported teasing by a parent because of their weight. Neumark-Sztainer et al. found that 58% of the 356 adolescent girls surveyed had experienced weight-based teasing from family members. Teasing was also associated with binge eating, higher BMI, and unhealthy attempts to control weight. In another study of adolescent girls, weight labeling as “too fat” at age 10 was a predictor of higher BMI at age 19, and the association was higher if weight labeling came from a family member. Maternal dieting behaviors and weight talk is also associated with disordered eating behaviors in adolescent girls. Parents may also feel blamed by health care providers for their child’s weight status. Thus, educating parents about the harmful effects of weight-based teasing in the home should be a priority.

Weight Stigma in Practice

In an interview, one of the clinic dietitians, L. Somers (October 2017) shared a number of anecdotal examples of the subtle and not-so-subtle effects of weight stigma on children with higher weights at WWMC. A bright, inquisitive 11-year-old boy with a BMI greater than the 95th percentile asked, “Does everyone have to be skinny?” in the middle of a 24-hour dietary recall. Later in the appointment, when the dietitian began to talk to the patient’s mom about his BMI, his eyes welled up with tears and he started to cry, and had to be reassured that it was not his fault.

Another patient, a shy 12-year-old girl, had reported a BMI in the “obese” range 5 months earlier, when she and her mother were told by her pediatrician that the girl was overweight and needed to lose weight. A nutrition assessment indicated the patient had dramatically restricted her eating and lost nearly 60 pounds, or 28% of her body weight in the last 5 months, which would qualify her for severe malnutrition under ESPEN consensus guidelines as well as raising concerns for disordered eating. She was currently eating less than 800 calories per day, which was significantly less than the nutrition requirements for her age, and her mom was worried it was not enough. Her current weight put her in the “normal” BMI range for her height, but she had recently begun taking a “hair and nails” vitamin because her hair had started to fall out and her nails were brittle. These are classic signs of malnutrition often seen in disordered eating. The extreme restriction and disordered eating behaviors appeared to begin immediately after the pediatrician’s initial comments.

Clinic dietitian Somers (October 2017) also reported instances of parents and caregivers expressing negative attitudes about a patient’s weight during appointments.
with the patient in the room, or reporting negative comments about weight by other family members in the home. These anecdotes are in line with previously presented evidence which demonstrates a need in the WWMC to tackle weight bias as part of the etiology of overweight and obesity.

It is important to address weight stigma in the WWMC because of the potential ill effects if it remains unaddressed. By educating patients and providers about weight stigma, providing health care practitioners with the tools to communicate sensitively about weight, and eliminating potentially stigmatizing experiences in the clinic environment, the team can reduce implicit and explicit weight bias and improve quality of patient care.

IV. Narrative Description: Implementation of a Weight Stigma-Free Environment

Main Purpose

This proposal seeks to eliminate weight stigma in the Lurie’s Wellness and Weight Management Clinic by increasing awareness and educating staff, educating patients and their families about the harmful effects of weight stigma, and modifying the clinic physical environment to reduce unintentional stigma. The goal of the intervention is to reduce weight bias in clinic team members and improve the patient care experience.

Strategy

The three-fold strategy is designed to target the areas in direct patient care that are most vulnerable to stigma and bias: the clinical staff, patient family members, and physical office environment. First, we will increase awareness in the clinical team providing care, including the physicians, advanced practice nurse, dietitians, medical assistants, and reception staff. We will also educate the team about the effects of weight stigma and provide resources they can use to communicate effectively and empathetically with patients about weight. Secondly, we will educate parents about the effects of weight stigma and how to communicate with their children about weight. Finally, we will make changes to the clinic’s physical environment to reduce stigmatizing experiences due to equipment or procedures.

1. Educate and Build Awareness of Weight Stigma in the Clinical Team

Building awareness will begin with two in-service presentations for the clinic staff on Weight Stigma in Health Care. Attendees will include all medical providers, dietitians, medical assistant and reception staff who work with clinic patients. Including all staff with patient contact will increase awareness among the entire team and facilitate consistent messaging from beginning to the end of each patient’s visit. The training sessions will be for all staff with patient contact including reception staff. The first session will seek to reduce explicit bias through reviewing the complex causes of obesity, and reduce implicit bias by taking an implicit bias awareness test to increase awareness, and the second session will provide tools for communicating effectively with patients\(^{28,29}\). Information will be presented from the toolkit for clinical providers: “Preventing Weight Bias: Helping without Harming in Clinical Practice” by the University of Connecticut Rudd Center for Food Policy and Obesity\(^{30}\).

The first presentation will provide information on weight stigma, review information on the etiology of obesity and provide opportunity for medical staff to provide
additional information from their areas of expertise within the field. During the session, staff will be asked to complete the Harvard Implicit Association Test for Weight Bias to self-assess for an automatic preference for fat or thin people. The Implicit Association Test was validated in 1998 with a seven-year follow up in 2007 and has been used to assess weight bias among health care professionals\textsuperscript{20,21,29,31}. Staff will not be asked to share their results with the group unless they want to, but will be asked to anonymously will use them as a starting point for a discussion on how health care providers may encounter or unintentionally perpetuate weight stigma in the clinic setting.

Two small pilot studies have demonstrated that the anti-stigma film \textit{Weight Bias in Health Care} may reduce weight bias among dietetic and medical students\textsuperscript{32,33}. Another small randomized controlled trial showed a significant decrease in anti-fat attitudes in undergrad students after viewing a documentary clip about the costs of weight stigma\textsuperscript{34}. Thus, the presentation will include a 17-minute video on \textit{Weight Bias in Health Care}, which addresses stigmatizing situations that adult patients with obesity may face in a medical office. A post-video discussion of how the video may reflect the experiences of the clinic’s pediatric patients both at their primary care clinics and at WWMC will allow the interdisciplinary team to reflect and apply the concepts.

The second in-service presentation will address provider-patient communication by providing options such as asking for permission to weigh patients and to talk about weight, using neutral, non-stigmatizing language when talking about weight, and asking patients and parents what terms they would prefer to use\textsuperscript{22,35,36}. In addition to asking for permission, when weighing patients, the medical assistants will be asked to refrain from commenting on weight or weight change while weighing the patient; instead this will be discussed privately in the exam room as recommended by the American Medical Association\textsuperscript{37}. A survey of parental perceptions of the language used by health care providers to talk about their child’s weight showed that parents feel least stigmatized when providers use terms such as ‘weight’, ‘unhealthy weight’, ‘high BMI,’ or ‘weight problem’, and are most motivated by terms such as ‘unhealthy weight’ or ‘overweight’\textsuperscript{38}. Adolescents surveyed at a summer weight-loss camp showed that boys and girls have slightly different preferences: females preferred the terms ‘weight’ or ‘curvy’ whereas males preferred ‘weight’, ‘overweight’, or ‘heavy’\textsuperscript{39}. This information can help providers feel more comfortable communicating with patients in a more sensitive way. The team will also review excerpts from a resource entitled \textit{Why Weight? A Guide to Discussing Obesity & Health with Your Patients} from the STOP Obesity Alliance at George Washington University\textsuperscript{40}. A facilitated discussion will allow the team to determine how these concepts can be incorporated into patient visits. Finally, a draft mission statement including the importance of addressing weight stigma will be circulated for discussion and approval by the team, to be posted in the reception area.

After these presentations, clinical staff will be encouraged to complete the \textit{Weight Bias In Clinical Care} Continuing Medical Education course available through the Rudd Center to increase their knowledge about weight stigma\textsuperscript{41}. Additional resources to be provided to staff who wish to educate themselves further are provided in the appendices.

2. \textbf{Educate Parents}

Specific interventions to decrease weight stigma in parents and caregivers have not been evaluated as of this paper’s writing\textsuperscript{3}. However, parents play a central role in
developing children’s body image and health habits, so it is an important area to address. There are a few expert recommendations for addressing obesity stigma. The first is to increase awareness about weight stigma with parents. The second is to provide education and tools for parents to reduce and avoid weight stigma with their children\textsuperscript{3}. To this end, this part of the intervention seeks to educate parents about weight stigma and its harmful effects, and to provide handouts that can help them to have supportive, non-stigmatizing conversations with their children about weight. This meshes with the current efforts by the clinic team to recruit parents as role models for healthy behaviors in the home.

Parent awareness-building will include an education handout for all new patients on weight stigma and its consequences, as well as an added question during the intake interview about weight-related teasing. Providers will ask parents if they have additional questions about how to address weight bias.

Parent education will include education handouts on what parents can do about weight bias, which includes addressing weight-related teasing from family members. Materials highlight the importance of parents modeling positive talk about weight. See Appendix for education materials.

\textbf{3. Modify Clinic Physical Environment}

The physical environment sets the stage for the patient and family’s clinic experience and includes the waiting room, location where the patient is weighed or has vitals taken, and the exam rooms. The impact of modifying the clinic physical environment on perceived weight stigma has not yet been evaluated in the literature as of the writing of this proposal, however, inadequately sized equipment and supplies can send signals of not belonging to patients\textsuperscript{10,12,21}. Additionally, weighing can be a sensitive experience for patients with overweight and can contribute to unintentional stigma or embarrassment\textsuperscript{10}. Phelan et al. and Fruh et al. recommend providing a more welcoming waiting room for people of all sizes as a way to potentially reduce stigmatizing experiences\textsuperscript{21,36}. In a guide to managing adult obesity in the clinical setting, the American Medical Association included a checklist of recommendations for quality obesity care including components of a welcoming office environment\textsuperscript{37}. A modified version of this checklist was used to evaluate the WWMC clinic environment during proposal development\textsuperscript{30}. The applicable items found lacking were large gowns, a private weighing area, and armless chairs in the waiting room.

The waiting room is where patients and families begin and end their visit at the clinic. Currently, the waiting room has chairs which are likely to fit most children but may be uncomfortable for adolescents or parents with higher weight. Following these recommendations, we will purchase and install 5 sturdy, armless chairs that support up to 500 pounds to provide seating options to make the waiting room a more comfortable and welcoming space for people of all sizes.

To a child who has potentially experienced weight-related teasing, weighing can be a potentially embarrassing experience. The American Academy of Pediatrics statement on obesity stigma recommends to weigh patients in a private area and to provide gowns that are sufficiently modest to allow patients to feel comfortable while being weighed and examined\textsuperscript{10}. To add to the existing array of three gown sizes, we will purchase 5 XL and 5 XXL gowns to ensure gowns are suitable for all patients, including pre-teens and adolescents with higher weights. Given the office space constraints, we will purchase and install a curtain to the existing weighing location to create a semi-private area.
education component for medical providers and assisting staff as mentioned above will include a policy of not mentioning or commenting on weight when measured, but instead discussing this privately in the exam room. These environmental changes are intended to create a more welcoming environment for patients to reduce weight stigma in the office for both patients and their family members.

V. Project Specifics

Implementation

This proposal will be presented to the clinic director for approval. Once approved, the intervention will proceed as outlined below from the date determined to be most appropriate to begin the implementation based on staffing availability, patient workload, and budgetary constraints. The two in-service presentations will be presented by one of the dietitians. Before the first presentation, the Implicit Association Test, Attitudes Toward Obese Persons (ATOP) and Beliefs About Obese Persons (BAOP) assessments will be completed by staff participants. The two trainings will be presented two weeks apart during week 1 and week 3, due to time and scheduling constraints. After the second presentation in week 3, three weeks will be allotted for input and edits to the mission statement. In week 6, the mission statement will be finalized and posted in the clinic. The updated patient forms with a question about weight-based teasing will also be released and providers will begin utilizing the parent education handouts about weight bias in new visits.

Planned physical environment changes will be presented to the clinic director for approval with this proposal. Approval is planned by week 4 for purchase of 5 chairs, 10 gowns, and a privacy curtain for the weighing area. These items will be installed and added to supplies by the end of week 6. Starting at week 7, all portions of the intervention will be implemented ongoing for the next 6 weeks. Patient Quality of Care surveys will be collected for 4 weeks from week 13 through the end of week 16. Data analysis of patient surveys and a summary will be completed during weeks 17-18 and results will be presented to the clinic director.

Cost

The costs of implementation are in altering the office environment, as all other resources used online in the intervention are available online at no cost. A curtain and ceiling track to make the weighing area semi-private will cost approximately $55.00 + $275.00 = $330.00. Replacing about 5 chairs in the waiting room with armless, wide-based bariatric-style chairs will cost approximately $300 per chair for a total of $1,500. This cost can be shared by the multiple clinics that utilize the waiting room. Thus the total cost of implementing this portion of the intervention is $1,830.

Training and meeting time is included in staff salaries and thus no additional personnel costs will be accrued. A time commitment of two hours for clinic medical providers and one hour for reception staff is required which can be scheduled during a time when patients are not being seen. The additional recommended Weight Stigma CME course can be utilized toward medical providers’ Continuing Education requirements.
VI. Goals and Objectives

Overall goal: To reduce weight bias in clinic team members, and improve the patient care experience by increasing awareness, educating staff, patients and their families about the harmful effects of weight stigma, and modifying the clinic physical environment to reduce unintentional stigma.

**Outcome Objective #1a.** By week 6, staff Attitudes Toward Obese Persons (ATOP) scores will increase by an average of at least 6 points.

**Outcome Objective #1b.** By week 6, staff Beliefs About Obese Persons (BAOP) scores will increase by an average at least 2 points.

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<thead>
<tr>
<th>Timeline</th>
<th>Activities</th>
<th>Process Objectives</th>
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</table>
| Week 1   | - Implicit Association Test  
- Attitudes Toward Obese Persons (ATOP) assessment  
- Beliefs About Obese Persons (BAOP) assessment  
- Present training 1: Weight stigma and etiology of obesity  
- Record staff attendance  
- Video: Weight Bias in Health Care  
- Discussion | 1a. By the end of week 1, at least 85% of clinic staff will complete the first training. |
| Week 3   | - Present training 2: Patient communication and parent education  
- Record staff attendance  
- Staff discussion of mission statement | 1b. By the end of week 3, at least 85% of medical staff will complete the second training. |
| Week 6   | - Collect ATOP assessment  
- Collect BAOP assessment  
- Analyze data  
- Summarize findings | 1c. By the end of week 6, 85% of staff will complete follow-up ATOP assessment.  
1d. By the end of week 6, 85% of staff will complete follow-up BAOP assessment. |

**Outcome Objective #2.** By the end of week 16, patients will report an average of at least 3.6 out of a 4 point scale for quality of care as reported by a 12-item patient quality of care survey.

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<tr>
<th>Timeline</th>
<th>Activities</th>
<th>Process Objectives</th>
</tr>
</thead>
</table>
| Week 4   | - Gain approval for clinic environment modifications from clinic director  
- Purchase chairs, gowns, and privacy curtain | 2a. By the end of week 4, chairs, privacy curtain, and gowns will be ordered. |
| Week 6   | - Dietitian will compile edits from medical staff and finalize mission statement  
- Reception staff will post copy of mission statement in waiting room area  
- Release updated new patient intake forms | 2b. By the end of week 6, staff will post a mission statement addressing weight stigma.  
2c. By the end of week 6, release new patient intake forms with weight teasing question. |
- Install chairs in waiting room
- Install curtain in scale area
- Add XL and XXL gowns to clinic supply

2d. By the end of week 6, implement office physical environment changes (chairs, privacy curtain, gowns)

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<tr>
<th>Weeks 13-16</th>
<th>- Provide Patient Care Quality Surveys to all patients</th>
</tr>
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</table>

2e. By the end of week 16, follow-up patient quality of care surveys will be collected from at least 25 patients.

**Outcome Objective #3.** By the end of week 18, quality of care and change in weight bias assessment results will be presented to the WWMC director.

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<tr>
<th>Timeline</th>
<th>Activities</th>
<th>Process Objectives</th>
</tr>
</thead>
</table>
| Week 18  | - Analyze Quality of Care data
- Summarize findings
- Combine Quality of Care findings and results from staff ATOP and BAOP assessments | 3a. By the end of week 18, a summary of quality of care findings will be completed. |

**VII. Evaluation Plan**

Evaluation of the overall goal, to reduce weight bias in clinic team members and improve patient care, will utilize several measures. The Attitudes Toward Obese Persons (ATOP) assessment is a 20-item validated scale with a high reliability that has been used widely to measure explicit bias or prejudice toward people of higher weight. Possible scores range from 0-120, with a higher score indicating a more positive attitude toward people with higher weights. This tool has primarily been used to quantify bias rather than to measure change, since few studies have examined ways to change weight bias in providers. The ATOP was selected as a measure for this intervention because of its validity in measuring weight prejudice and high reliability. Because there is not a standard reference for the change expected, this author chose an increase of 6 points, which would be equivalent to a slight change in nearly 1/3 of the questions. This is at least a 5% change in reference to the entire range of the scale, and seems reasonably analogous to the magnitude of change recorded in other scales.

The ATOP has been used in conjunction with the 8-item Beliefs About Obese Persons (BAOP) assessment, a validated measure of beliefs about the extent to which obesity is under personal control. A higher score indicates a belief that obesity is less subject to personal control. A small study seeking to reduce weight bias in 63 medical students through an anti-stigma film showed a significant increase in BAOP of nearly 3 points. Thus, the BAOP is appropriate for the medical population and intervention. We can reasonably expect a change of at least 2 points. These measures will be utilized together to measure both stereotypes of people with obesity and beliefs about the causes of obesity.

Staff will randomly pick a number between 1 to 9 out of a box which will serve as their anonymous ID number. They will keep the number confidential and record it at the top of their ATOP and BAOP assessments so initial and follow-up assessments can be matched to measure change but remain anonymous. Scores will be tabulated and analyzed by the dietitian after the follow-up surveys are collected in week 6.
Improvement of patient care will be evaluated through a quality of care survey. Because of the high potential burden on patients who are already completing a lot of paperwork, the survey will only be collected after implementation during a 4 week period in which at least 25 surveys will be collected. The 12-question survey was adapted from questions provided by the Rudd Center’s Preventing Weight Bias toolkit30. Responses can be added and divided by 12 for an average score between 0 and 4. An average of 3.6 points will indicate a patient satisfaction of 90%. See appendix for a copy of the survey. Quality of Care scores will be tabulated and analyzed by the dietitian after the patient surveys are collected by week 16. The dietitian will summarize findings from the quality of care surveys and from the staff weight bias assessments in a report to the clinic director.

Limitations of the evaluation include the sparse literature on effective stigma reduction in medical providers among other groups. Medical providers may be hesitant to share their results if it makes them appear prejudiced. For this reason, the implicit association test results will not be collected. Additionally, patients already experience a heavy paperwork burden. Successful implementation of the physical office changes complies with recommendations for providing quality of care to patients with obesity37. Thus, completion of implementation combined with the care quality survey results provides evidence that patients are satisfied with the physical environment and care practices. The proposal seeks to strike a balance between the limited evidence available and the pressing need to address an issue which potentially influences the experiences, behaviors, and outcomes of the entire patient population.

<table>
<thead>
<tr>
<th>Obj.</th>
<th>Evaluation Question(s)</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>O#1a</td>
<td>By how many points did average staff ATOP score increase between initial and follow-up administration?</td>
<td>ATOP assessment</td>
</tr>
<tr>
<td>O#1b</td>
<td>By how many points did average staff BAOP score increase between initial and follow-up administration?</td>
<td>BAOP assessment</td>
</tr>
<tr>
<td>P 1a</td>
<td>What percentage of staff completed initial weight bias training?</td>
<td>Attendance records</td>
</tr>
<tr>
<td>P 1b</td>
<td>What percentage of staff completed initial weight bias training?</td>
<td>Attendance records</td>
</tr>
<tr>
<td>P 1c</td>
<td>What percentage of staff completed a follow-up ATOP assessment?</td>
<td>ATOP assessment sheets</td>
</tr>
<tr>
<td>P 1d</td>
<td>What percentage of staff completed a follow-up BAOP assessment?</td>
<td>BAOP assessment sheets</td>
</tr>
<tr>
<td>O#2</td>
<td>What was the average score on the 4 point scale for quality of care reported by patients by the end of week 16?</td>
<td>Analyzed patient quality of care surveys</td>
</tr>
<tr>
<td>P 2a</td>
<td>By which week were the chairs, gowns, and privacy curtain ordered?</td>
<td>Purchase order forms</td>
</tr>
<tr>
<td>P 2b</td>
<td>By which week was the mission statement addressing weight stigma posted?</td>
<td>Final mission statement in waiting area</td>
</tr>
<tr>
<td>P 2c.</td>
<td>By which week were updated new patient intake forms released?</td>
<td>Final updated new patient intake forms</td>
</tr>
<tr>
<td>P 2d.</td>
<td>By which week were office physical environment changes (chairs, privacy curtain, gowns) implemented?</td>
<td>Purchase invoices; email of completion from office staff</td>
</tr>
<tr>
<td>P 2e.</td>
<td>How many patient quality of care surveys were collected by week 16?</td>
<td>Patient quality of care surveys</td>
</tr>
</tbody>
</table>
| O#3  | In which week were the quality of care and change in weight bias assessment results will be presented to the WWMC director. | Analyzed patient quality of care survey data  
Analized ATOP and BAOP data |
| P 3a. | By which week was the summary of quality of care findings completed? | Summary of quality of care findings |
VIII. Bibliography and References Cited


IX. Appendices

1. Assessment Tools
   • Harvard Implicit Association Test – Weight
   • Attitudes Toward Obese People scale
     o Scoring instructions for the Attitudes Toward Obese Persons scale (ATOP)
       ▪ Step 1: Multiply the response to the following items by -1 (i.e., reverse the direction)
       ▪ of scoring): Item 2-6, Item 10-12, Item 14-16, Items 19-20
       ▪ Step 2: Add up the responses to all items.
       ▪ Step 3: Add 60 to the value obtained in Step 2. This value is the ATOP score.
     o Higher numbers indicate more positive attitudes.
   • Beliefs About Obese People scale
     o Scoring instructions for the Beliefs About Obese Persons scale (BAOP)
       ▪ Step 1: Multiply the response to the following items by -1 (i.e., reverse the direction of scoring): Item 1, Items 3-6, Item 8
       ▪ Step 2: Sum the responses to all items.
       ▪ Step 3: Add 24 to the value obtained in Step 2. This value is the BAOP score.
     o Higher numbers indicate a stronger belief that obesity is not under the obese person’s control.
   • Patient Quality of Care survey
Patient Quality of Care Survey

It is important to us that you are satisfied with the health care services that you receive. Thinking about your appointment today, please rate the quality of care you and your child received for each of the following items, by circling one number on each line.

1. Did your provider listen to your concerns?
   Rarely/Never Sometimes About half of the time Most of the time Always
   0 1 2 3 4

2. Did your provider make you feel at ease when discussing sensitive topics such as weight?
   Rarely/Never Sometimes About half of the time Most of the time Always
   0 1 2 3 4

3. Did your provider show respect for you and your child?
   Rarely/Never Sometimes About half of the time Most of the time Always
   0 1 2 3 4

4. Did your provider spend enough time during the appointment with you and your child?
   Rarely/Never Sometimes About half of the time Most of the time Always
   0 1 2 3 4

5. Did your provider give you time to ask questions?
   Rarely/Never Sometimes About half of the time Most of the time Always
   0 1 2 3 4

6. Did you obtain answers to your questions from your provider?
   Rarely/Never Sometimes About half of the time Most of the time Always
   0 1 2 3 4

Please rate the following items pertaining to your child’s visit today, by circling a number on the following scale:

<table>
<thead>
<tr>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

(Please circle)

7. Providers were friendly and courteous towards you and your child: 1 2 3 4

8. Receptionist and office staff were friendly and courteous towards you and your child: 1 2 3 4

9. The waiting area was comfortable enough: 1 2 3 4

10. The examination gown fit appropriately: 1 2 3 4

11. The weighing area was sufficiently private: 1 2 3 4

12. Providers showed concern for you and your child’s emotional well-being: 1 2 3 4

2. **Weight Stigma Education Resources and Videos**
   - Continuing Education
     - Weight Bias in Clinical Care CME Course (UConn Rudd Center)
   - Weight Stigma Videos:
     - Weight Bias in Health Care (UConn Rudd Center; play time 16:56)
       - Reduced weight bias in medical students in two separate small trials\(^{32,33}\)
     - Stigma: The Human Cost of Obesity (HBO Documentary Short; play time 18:54)
       - Reduced weight stigma in a small group of undergraduates\(^{34}\)
   - Presentations:
     - Pediatric Obesity and Bullying: Implications for Patients, Providers and Clinical Practice (PowerPoint presentation by Rebecca Puhl, PhD)
   - Weight Stigma Guides
     - Preventing Weight Bias: Helping without Harming in Clinical Practice\(^{30}\)
     - Why Weight: A guide to discussing obesity & health with your patients\(^{40}\)

3. **Additional Weight Stigma Resources**
   - University of Connecticut Rudd Center for Food Policy and Obesity
   - Strategies to Overcome and Prevent (STOP) Obesity Alliance
   - Obesity Action Coalition
     - Handout: Weight Bias in Healthcare

4. **Sample Mission Statement**
   We at the Wellness and Weight Management Clinic recognize that weight can be a sensitive topic for children and for parents. There are many ways that our American society contributes to feelings of frustration, shame, or stigma about body size. Many of our patients have experienced bullying, discrimination, or prejudice because of their size.

   Our team strives to provide stigma-free, supportive, evidence-based health care that acknowledges the efforts that you as parents, guardians, and children make in your everyday lives to build healthy habits. We also acknowledge the challenges that you and your family may face in making changes to your habits.

   Our objective is to educate families about proper nutrition and support you and your family to set up habits that will help the whole family to be healthier. We want to help your child to achieve appropriate physical growth and development, as well as a healthy self-esteem. Please let us know if there are additional ways we can support you and your child.
5. **Question to add to intake form**

   **English (Spanish)**
   Has your child experienced teasing or bullying about his/her weight in the last 3 months? 
   (¿Ha experimentado su hijo/hija burlas o acoso sobre su peso en los últimos 3 meses?)
   If so, by whom? Check all that apply: (Si es, ¿por quién? Marque todo lo que corresponda:)
   - Peers or classmates (Compañeros o compañeros de clase)
   - Family members (Miembros de la familia)
   - Caregivers (Cuidadores)
   - Teachers or coaches (Maestros o entrenadores)
   - Health Care Providers (Proveedores de servicios médicos)
   - Others - specify (Otros - especificar) __________

6. **Parent Handouts**
   - Children and Weight
     - Is Your Child a Target of Weight Bias?
     - Ways for Parents to Combat Weight Bias
     - Parents: Talking to your kids about weight
   - Educating Yourself and Others
     - Having a Productive Conversation: Weight Bias – Dispelling Myths
     - Weight Bias: Important Information for Parents
   - Addressing Weight-based bullying
     - How to Talk to Your Child about Weight Bias

7. **Medical Equipment Resources**
   - Resources for Size Diverse Medical Equipment and Supplies
8. Logic Model

**Overall Goal:** To reduce weight bias in clinic team members, and improve the patient care experience by increasing awareness, educating staff, patients and their families about the harmful effects of weight stigma, and modifying the clinic physical environment to reduce unintentional stigma.

**INPUTS**
- Pediatricians, Advanced Practice Nurse, Dietitians, Medical Assistant, and office reception staff at WWMC
- Presentation on weight stigma and etiology of obesity
- Presentation on provider-patient communication
- Harvard Implicit Association Test
- Attitudes Toward Obese Persons assessment
- Beliefs About Obese Persons assessment
- Video: *Weight Bias in Health Care*
- *Preventing Weight Bias* resource
- *Why Weight* resource
- Weight Bias in Clinical Care CME
- Parent Education Handouts

**ACTIVITIES**
- RD presents first presentation to all staff
- All staff take Implicit Association Test
- All staff take Attitudes Toward Obese Persons assessment
- All staff watch HBO video
- RD presents second presentation to medical providers
- Providers complete mission statement
- Providers integrate weight bias education handouts into new patient intake
- Question about weight based teasing added to intake form
- Chairs, gowns, and curtain are purchased and installed

**OUTPUTS**
- Mission Statement
- Updated intake form
- Pre-and post-education Attitudes Toward Obese Persons assessment results
- Pre- and post-education Beliefs About Obese Persons results
- Waiting room has at least 5 bariatric chairs
- 5 XL and 5 XXL gowns available for adolescent patients
- Curtain installed to form semi-private weighing area
- Report of assessment results

**OUTCOMES**
- Increase Attitudes Toward Obese Persons (ATOP) scores by an average of at least 6 points.
- Increase Beliefs About Obese Persons (BAOP) scores by an average of at least 2 points.
- Report an average of at least 3.6 out of a 4 point scale for quality of care survey.
- Report of assessment results presented to clinic director.