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Patient Education and Counseling

Reimagining primary care visits for people living with obesity: A Co-design and validation study

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ABSTRACT

Objective: Patients living with obesity may delay primary care visits due to negative experiences, yet their optimal primary care experience has not been defined. Our objective was to describe an ideal primary care visit in collaboration with people living with obesity and determine its validity among a sample of adults with obesity.
Methods: We employed a co-design process where participants created an ideal primary care visit scenario that was followed by a 2024 cross-sectional survey of people with obesity for validation. We recruited U.S. adults with obesity who had a primary care visit within 5 years. Participants viewed the ideal scenario and rated its overall quality on a 10-point scale [poor (1) to excellent (10)], which we compared to overall quality reported for their last primary care visit using an unpaired t-test. Participants rated the importance of 13 scenario elements on a 4-point scale ('not at all important' to 'very important').
Results: Among the 250 survey participants, 60 % were aged 46–65 years; 90 % were women; 78 % identified as white. Mean BMI was 36.3 kg/m^2 (SD 10.3). Mean quality for the ideal primary care visit (9.4 (SD 1.4)) was significantly higher than their last visit (8.0 (SD 2.1)) (p < 0.01). Highly important elements were 'doctor treats me with care and respect' (96 %), 'doctor really listens' (95 %), and 'doctor refers to specialists who treat me with care and respect' (92 %).
Conclusion: People living with obesity prefer a primary care visit characterized by respectful treatment and listening. Primary care practices and clinicians should consider incorporating elements from this scenario in their practices.
Practice Implications: Our findings underscore the importance of clinician education related to weight stigma and creating an inclusive environment for all patients.

1. Introduction

The obesity prevalence among U.S. adults is 40.3 % [1], and obesity has increased worldwide [2]. Patients with obesity are over-represented in primary care [3], therefore, it is particularly important to evaluate care experiences in this setting. Prior research has found that weight-loss discussions between patients and primary care clinicians may lead to greater weight loss in relationships where patients do not perceive clinician judgment about their weight [4].

Unfortunately, people living with obesity encounter weight bias –

negative attitudes and stereotypes due to their weight – which leads to mistreatment (weight stigma). Weight stigma contributes to depression, anxiety, and disordered eating [5,6]. Clinicians are often identified as sources of weight stigmatization [7], and weight bias occurs among physicians, nurses, and other medical staff [7–10]. Healthcare quality for patients with obesity may be low, as clinicians spend less time and engage in less rapport-building communication with them [11,12]. A clinic's physical environment can promote stigma (e.g., improperly sized gown), which contributes to patients delaying or avoiding primary care [13]. Patient-centered care is needed to address these negative

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experiences facing people with obesity.

This study aimed to develop a reimagined primary care visit by employing a two-phase approach involving: 1) co-designing an ideal scenario with people living with obesity, and 2) evaluating the face validity of this scenario among adults with obesity.

2. Methods

2.1. Co-design process

Co-design is a participatory approach where community members are equal collaborators in designing solutions [14]. Our co-design process was initiated by the Obesity Action Coalition (OAC), a non-profit organization dedicated to advocacy for people living with obesity, in partnership with Thoughtform, a strategy and experience design studio. In June 2023, OAC identified volunteers with obesity willing to participate. Participants received $25 USD as compensation for their time.

Two co-design workshops were planned and facilitated by Thoughtform via online videoconferencing. During the first (June 2023), ten individuals participated and discussed: 1) reviewing the patient journey, 2) identifying patient challenges, 3) solving these challenges, and 4) selecting the most important challenges to solve. Thoughtform staff reviewed responses and drafted an ideal primary care visit in the form of a first-person scenario (story) that included text and illustrations. During the second workshop (August 2023), five individuals discussed: 1) top message to clinicians, 2) reviewed patient journey, and 3) reviewed ideal primary care scenario (one individual participated in both workshops). Thoughtform staff revised the text and illustrations of the imagined ideal primary care visit to reflect participant comments.

2.2. Validation survey

2.2.1. Design & study sample

We conducted an online cross-sectional survey among U.S. adults with obesity in May 2024 to determine the face validity of the ideal primary care scenario. The Drexel University Institutional Review Board approved this study (IRB#2406010586).

To recruit participants, a survey link was emailed to all OAC members and information was posted on OAC's social media to enable non-member participation. To be eligible, participants had to be ≥ 18 years of age, reside in the U.S., self-identify as living with obesity, and have attended a primary care visit within the past 5 years. All participants could enter a raffle for a $50 USD gift card. Overall, 435 individuals clicked the email link, 342 started the survey, and 250 completed it (completion rate: 73.2 %).

OAC, Thoughtform, and clinical researchers collaboratively designed the survey, which was piloted tested for comprehension among co-design process participants (~20-minute survey; 34 questions; 9th grade reading level). Supplemental Materials 1 contains the complete survey, which included outcomes, demographics, self-reported health status, and current primary care experience characteristics.

2.2.2. Primary outcome

To assess face validity, we compared participants' overall quality ratings of the ideal primary care experience scenario with the overall quality experienced at their most recent primary care visit. We hypothesized that the ideal scenario would have higher overall quality scores than those for their most recent primary care visits, thus suggesting that this reimagined scenario represents an improved primary care experience. Participants were first asked to "rate the overall quality of your experience during your last primary care visit" on a scale of 1 (poor) to 10 (excellent). Participants then viewed the ideal primary care scenario (Fig. 1), and afterwards, answered: "If I was the patient in the imagined scenario, I would rate the overall quality of this experience as…" on a scale of 1 (poor) to 10 (excellent). We used an unpaired *t*-test to compare overall quality between their most recent primary care visit and the ideal primary care scenario.

2.2.3. Secondary outcomes

Participants rated the importance of 13 scenario elements on a 4-point scale (not at all important/not very important/somewhat
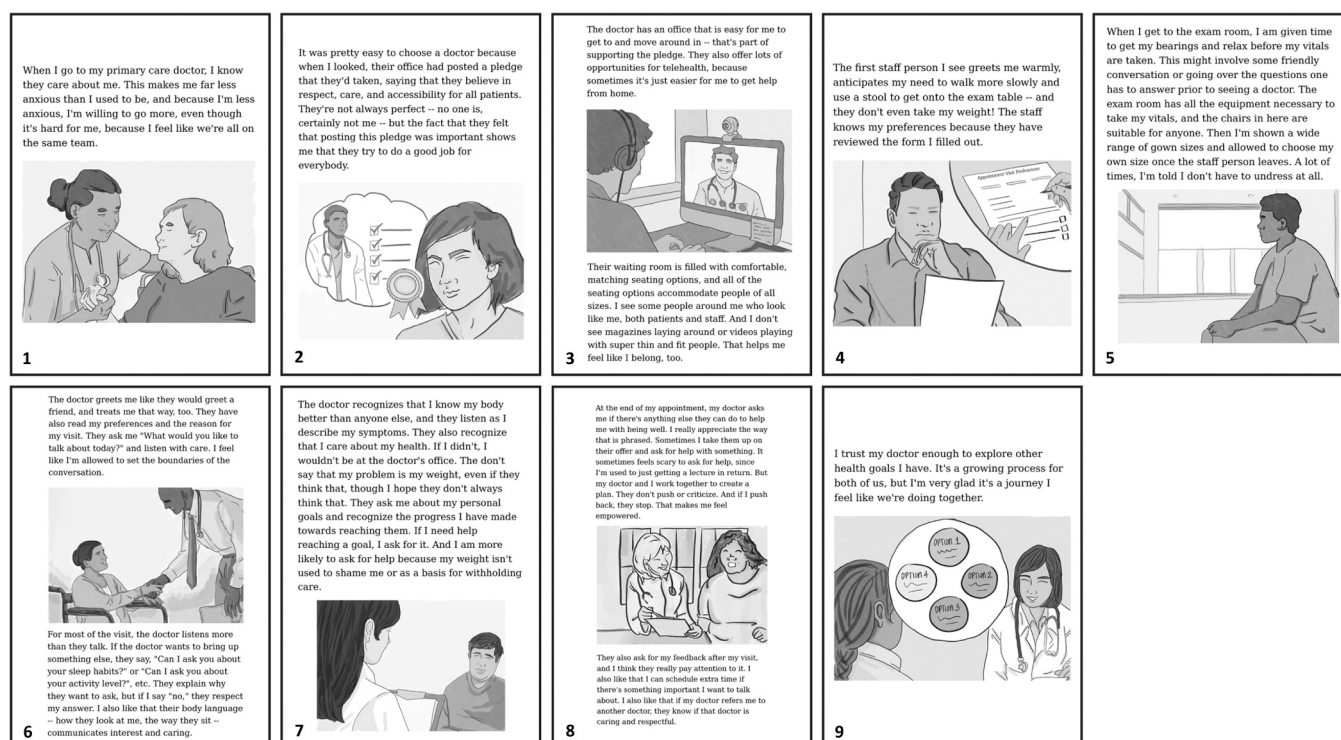

Fig. 1. Co-Designed Ideal Primary Care Experience for People Living with Obesity. Nine story panels that describe the co-designed ideal primary care experience.

important/very important). For example, elements included 'waiting and exam room designed to accommodate everyone' and 'doctor really listens.' Given potential ceiling effects, we calculated the percentage of participants who rated each element as a 'very important' feature of the scenario.

3. Results

3.1. Co-design process

A total of 14 individuals participated in the co-design process, which identified several patient-experience challenges and desired qualities for primary care visits (Table 1). These themes informed the ideal scenario displayed in nine story panels (Fig. 1).

3.2. Validation survey

Table 2 displays participants' characteristics. Most were women (90.0 %), identified as white (81.9 %), and mean BMI was 36.3 kg/m^2 (SD 10.3). The mean quality rating for the ideal primary care scenario (9.4 (SD 1.4)) was significantly higher than the quality of participants' recent primary care visits (8.0 (SD 2.1)) (Fig. 2). Table 3 displays the importance of specific ideal primary care scenario elements. Over 90 % of participants rated respectful treatment, really listening to me, and referral specialists provide caring and respectful treatment as very important.

4. Discussion and conclusions

4.1. Discussion

Through a co-design process, we reconceptualized an ideal primary care visit centered on the voices of people living with obesity. Our findings suggest that adults with obesity preferred the quality of the reimagined primary care scenario over their last primary care visit. Our findings underscore that people with obesity prioritize aspects of care that are valued generally — being treated with care and respect by primary care and specialty clinicians as well as being listened to — yet they often face healthcare settings that fail to meet these needs.

These results underscore how communication between clinicians and patients contributes to weight stigma, and behavioral changes by primary care clinicians may be needed. A 2023 review identified "verbal and non-verbal communication of weight stigma in healthcare" as a main theme [15]; study participants reported that clinicians did not listen to them and talked down to them. To foster effective and compassionate healthcare settings, clinicians should adopt a non-judgmental, collaborative communication approach with patients with obesity [16] to help them feel respected, listened to, and engaged in

Table 2
Characteristics of Validation Survey Participants*.

	Survey Participants (n = 250)
Demographics	
Age Group, n (%)	
Age 35 years or younger	11 (4.4 %)
36–45 years	38 (15.2 %)
46–55 years	70 (28.0 %)
56–65 years	80 (32.0 %)
Over age 65	51 (20.4 %)
Women, n (%)	225 (90.0 %)
White, n (%)‡	203 (81.9 %)
Educational Attainment, n (%)	
Graduate School	89 (35.6 %)
College Graduate	101 (40.4 %)
High School Graduate or Lower	60 (24.0 %)
Employment Status, n (%)	
Employed/Student	149 (59.8 %)
Retired	57 (22.9 %)
Disabled/Unemployed	43 (17.3 %)
OAC Member, n (%)	197 (78.8 %)
US Region, n (%)§	
Northeast	58 (23.2 %)
South	72 (28.8 %)
Midwest	58 (23.2 %)
West	62 (24.8 %)
Health Status	
Mean BMI in kg/m^2 (SD) **	36.3 (10.3)
Mean # Chronic Conditions (SD)‡‡	2.3 (1.3)
Primary Care Experience	
# PCP Visits in the Last 12 Months, n (%)	
0 visits	10 (4.0 %)
1–2 visits	125 (50.0 %)
3–4 visits	81 (32.4 %)
5 or more visits	34 (13.6 %)
Mean Rating of PCP Empathy (SD)§§	8.3 (2.4)
Mean Rating of PCP Respect (SD)§§	8.7 (2.1)

Abbreviations: BMI – body mass index; OAC – Obesity Action Coalition; PCP – primary care practitioner; US – United States. *Percentages may not add to 100 % due to missing data.

‡ There was limited diversity in race/ethnicity in the sample, which limits data presentation.

§ Participants identified the U.S. census region for the state where they reside with the aid of a map.

** BMI calculated from self-reported height and weight (n = 223).

‡‡ Participants reported whether they had arthritis, hypertension, heart disease, diabetes, or depression/anxiety.

§§ Rated on a scale from 1 (none) to 10 (very high)

their healthcare journey.

Disrespectful language towards patients with obesity has been identified in multiple healthcare settings [15]. Across 49 U.S. medical schools, a study found that residents in specialty programs (e.g.,

Table 1
Key Themes Identified During Co-Design Process.

| **Negative Aspects of the Patient Experience** |
|---|
| *Sometimes the doctor's office requires so many steps–to get there, to get from the waiting room to the examining room.* |
| *It makes me self-conscious to see lots of thin, fit people in waiting rooms and on magazines in the waiting rooms.* |
| *I always have to get weighed, which makes me ashamed.* |
| *I hate that the special equipment to fit me is never in the exam room I'm in.* |
| *Everything is about my weight, even if I come in with a sinus infection.* |
| *Doctor doesn't listen to me. Doctor only lectures me, like somehow I don't know I'm fat.* |
| *Doctor treats me like I don't care about my health (If I didn't care, why would I be here?).* |
| *I hate getting referred to specialists who really dislike overweight people.* |
| **Qualities of an Ideal Primary Care Visit** |
| *Treat me with respect.* |
| *Don't make everything about my weight.* |
| *Listen to me when I talk. Listen more than you talk.* |
| *Assume I care about my health.* |
| *Partner with me in making decisions about my health.* |
| *Ensure the experts you refer me to are empathetic, not mean.* |
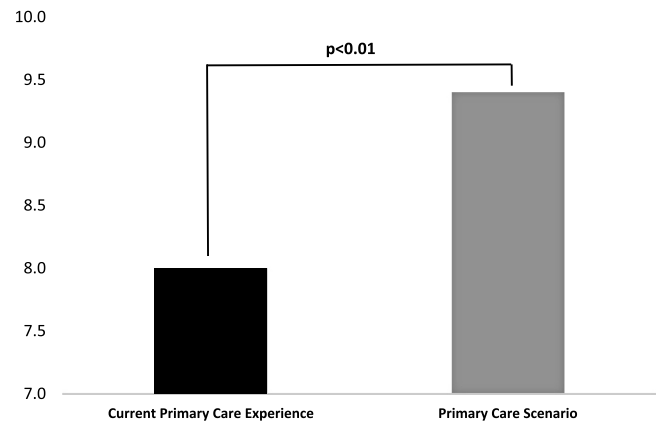
Fig. 2. Comparison of Mean Ratings of Overall Quality Score of Care Experience. Participants' overall quality ratings of the ideal primary care experience scenario compared with the overall quality experienced at their most recent primary care visit. Overall quality rated on a scale of 1 (poor) to 10 (excellent). p-value calculated using unpaired *t*-test.

Table 3

Importance of specific elements of the ideal primary care scenario.

	Survey Participants (n = 250)
Very Important Features of Primary Care Scenario, n (%)	
Doctor treats me with care and respect	239 (96.4 %)
Doctor really listens to me when I talk	237 (96.3 %)
Specialists I am referred to also treat me with care and respect	230 (96.0 %)
Doctor recognizes I care about my health and recognizes the progress I make in reaching goals	222 (89.2 %)
Doctor does not blame everything on my weight or shame or lecture me about my weight	212 (84.8 %)
Doctor treats me like I am expert in my body and works with me as a partner in my health	210 (84.0 %)
Waiting and exam room are designed to accommodate everyone equally and make everyone feel welcome and unrushed	183 (73.2 %)
Gowns come in extended sizes and I can choose my own	152 (61.0 %)
Doctor's office seeks input from me – before our visit on preferences and after our visit for feedback	141 (56.4 %)
Doctor posted a pledge to treat all patients with care and respect	139 (56.1 %)
Doctor's office makes visits easy with a good location, not too much walking, and by offering telehealth appointments	136 (54.6 %)
Doctor and staff let me decide if I want to be weighed	107 (43.0 %)

Potential response options for each statement included 'not at all important,' 'not very important,' 'somewhat important,' and 'very important.'

orthopedic surgery, anesthesiology) had significantly higher levels of weight bias compared to primary care (e.g., family medicine) [17]. In our study, nearly all participants felt that being referred to specialists that treat patients with obesity with care and respect was very important. We are unaware of other studies that have described this concept, and therefore, primary care clinicians may be unaware of this preference. Clinical practices might consider inquiring about patients' experiences with specialists to create a list of specialty clinicians who provide respectful care to individuals with obesity.

Our study participants highlighted environmental barriers for people living in larger bodies, specifically the discomfort associated with poor fitting gowns and inadequate waiting room furniture. These physical challenges align with existing research on improving healthcare experiences for individuals with obesity [18]. A recent study developed and evaluated an environmental checklist for accommodating patients with obesity in outpatient settings [19], which may aid practices in identifying needed changes. Commonly noted deficiencies included extra-large blood pressure cuffs, wheelchair-accessible scales, 2XL gowns, and adequate seat dimensions in waiting room chairs [19].

Primary care offices should consider investing in inclusive furniture and equipment to foster a welcoming non-discriminatory environment.

Our study's limitations include homogeneity with respect to gender and race. Our sample was predominantly comprised of OAC members whose experiences may differ from people with obesity broadly. This study was limited to U.S. adults; experiences and preferences may differ among individuals residing in other countries.

4.2. Conclusions

Partnering with people with obesity provided an opportunity to ensure voices of this population were included in reimagining primary care visits. Individuals with obesity prefer a primary care space that is inclusive of all bodies with clinicians who listen, are respectful, and care — standards that should be an expectation for any clinical interaction.

4.3. Practice implications

Our findings underscore the importance of clinician education related to weight stigma and creating inclusive primary care environments for all patients. Foundational practices — active listening, demonstrating respect, and ensuring referrals to clinicians that uphold these same principles — are crucial to improving care experiences for patients with obesity and should be prioritized in all clinical encounters.

CRediT authorship contribution statement

James Zervios: Writing – review & editing, Resources, Investigation, Conceptualization. **Michelle Vicari:** Writing – review & editing, Resources, Investigation, Conceptualization. **Katie Schmiedicker:** Visualization, Conceptualization. **Gwyn Cready:** Writing – review & editing, Methodology, Investigation, Conceptualization. **Gudzune Kimberly:** Writing – review & editing, Writing – original draft, Visualization, Supervision, Methodology, Formal analysis, Conceptualization. **Kyle Theodore:** Writing – review & editing, Conceptualization. **Brown Kristal:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Theodore K. Kyle reports a relationship with Boehringer Ingelheim Corp USA that includes: consulting or advisory. Theodore K. Kyle reports a relationship with Emerald Lake Safety that includes: consulting or advisory. Theodore K. Kyle reports a relationship with Novo Nordisk Inc that includes: consulting or advisory. Theodore K. Kyle reports a relationship with Nutrisystem Inc that includes: consulting or advisory. Theodore K. Kyle reports a relationship with Roman Health Ventures Inc that includes: consulting or advisory. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Michelle Vicari reports financial support was provided by Obesity Action Coalition. Michelle Vicari reports a relationship with Obesity Action Coalition that includes: employment. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Katie Schmiedicker reports writing assistance was provided by Thoughtform. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. Gwyn Cready reports financial support, administrative support, equipment, drugs, or supplies, and travel were provided by Thoughtform. Gwyn Cready reports a relationship with Obesity Action Coalition that includes: consulting or advisory. Gwyn Cready reports a relationship with ConscienHealth that

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Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.pec.2025.109190.

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