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Research Article

Body Image-Related Barriers to Meeting Goals in Behavioral Weight-Loss Interventions among Hispanic/Latina Women: A Qualitative Study

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Abstract

Behavioral weight loss (BWL) interventions can help combat lifestyle-related diseases that disproportionately affect marginalized communities. However, significant body dissatisfaction seems to negatively affect success in meeting diet and exercise goals among certain underserved populations, including Hispanic/Latina women. This study qualitatively explored participant-identified body-image related barriers to meeting step and calorie goals among this population, in addition to suggestions for increasing goal attainment, via focus groups. Transcripts were analyzed using thematic analysis. This study was approved by the University of New Mexico Institutional Review Board, approval # 2207011040. Major barriers were related to mental health problems, a lack of progress negatively affecting motivation, and negative self-talk. Major suggestions were to incorporate mental healthcare, provide multi-level programming, and increase positive body image. The suggestions identified in this study highlight the relationship between body image, depression, and self-esteem among this population. Although they require empirical testing, they could feasibly be incorporated into BWL interventions or comprehensive medical weight management plans and would likely improve the health of this and other underserved populations.

Keywords: Body dissatisfaction, Adherence, Diet, Exercise, Thematic analysis

Introduction

Weight and lifestyle-related diseases are among the leading causes of morbidity and mortality worldwide and Hispanic/Latine populations are disproportionately affected [1-3]. Although many effective medications and surgeries are available to manage weight, lifestyle modifications remain the first line treatment due to evidence of fewer adverse consequences and lower attrition rates as well as barriers to accessing these medications related to limited insurance coverage and medication shortages (Elmaleh-Sachs et al., 2023). Moreover, it is recommended that anti-obesity medications and bariatric procedures are delivered in conjunction with lifestyle modifications rather than as standalone treatments (Elmaleh-Sachs et al., 2023). The recommended lifestyle modifications generally utilize a mixture of education

and behavioral weight loss (BWL) strategies, such as goal setting, self-monitoring (of diet, exercise, or weight), and cognitive restructuring. BWL interventions have been shown to result in modest yet clinically significant weight loss (5-10%) and increases in physical activity, but unfortunately, evidence suggests lower levels of various types of adherence to these interventions among both Hispanic/Latine and female participants compared to White or male participants, respectively [4-6].

Many possible barriers to adherence to BWL interventions or strategies have been identified, though it is unclear to what extent these factors are applicable for Hispanic/Latina women. Recent reviews have found that step and calorie goal attainment is negatively predicted by poor motivation and

mood, societal or social pressures, lack of enjoyment of exercise, lack of self-efficacy and social support, and many other factors (Burgess et al., 2017) [7,8]. One recent study that did focus on obese, middle-aged Hispanic/Latine adults found comparable results as far as anxiety and other mood issues serving as barriers. Additionally, it found that social pressures to eat, program cost, limited social engagement, lack of access to exercise or healthy food infrastructure, and a lack of culturally relevant foods included in weight loss programs were perceived barriers to weight management among Hispanic/Latine adults (Dao et al., 2022). Interestingly, this study found a few noteworthy facilitators, including a desire to help family members improve their diet, a willingness to learn how to make traditional foods healthier, access to both exercise and inclusive exercise facilities, and increased trustworthiness of the implementers. While this study highlighted some individual, cultural, and systemic factors that can influence adherence to weight management programs among older Hispanic/Latine adults, our understanding of how factors in these domains impact treatment adherence and long-term outcomes across the broader population remains limited.

One psychological factor that appears to be somewhat understudied in the context of its relationship to adherence to BWL strategies is poor body image. Body dissatisfaction, body shape concern, and physique anxiety predict higher attrition (Burgess et al., 2017) and less weight loss in the context of BWL interventions and lifestyle modification programs [8-10]. Higher body dissatisfaction also predicts lower diet quality and less physical activity [11-13]. There is some evidence that body dissatisfaction is indirectly related to failure to adhere to a diet via unhealthy motivations for dieting in the first place, which are often associated with restrictive dieting methods. In turn, these extreme dieting methods are related to binge eating and subsequently the abandonment of one's diet (Buchanan et al., 2019). Similarly, overweight women with higher internalized weight stigma (i.e., the degree to which one "buys into" or applies negative attitudes and stereotypes regarding overweight individuals to themselves) appear to be more likely to avoid exercise due to feelings of shame [14]. Since women of a higher weight are at risk for poor body image, it is crucial to explore ways to mitigate these negative effects [15]. Encouragingly, a recent study combining a research-based body image intervention with components of BWL interventions found that the experimental condition had better BI- and weight-related outcomes compared to the informational control group in a predominantly White, female sample, though neither group reached the 5% reduction target [16]. This study offers promise regarding the benefits of improved body image in women aiming for weight loss, at least among non-Hispanic White women.

The relationship between body image and weight-loss behaviors among Hispanic/Latina women is less clear, partially due to limited research. In one culturally adapted interven-

tion with primarily Mexican, Spanish-speaking, first-generation immigrant women, baseline body dissatisfaction did not predict change in moderate-to-vigorous physical activity during the intervention, but a BWL intervention study conducted among primarily third-generation or higher, English-speaking Mexican American women found that higher body dissatisfaction was linked with poorer adherence in terms of fewer days meeting step and calorie goals [17,18]. In the latter study, body dissatisfaction accounted for these findings over and above depression. These discrepant findings might stem from the former study's focus on increasing physical activity alone versus the latter's inclusion of dietary improvements, differences in body dissatisfaction measures, different behavioral outcomes, or varying levels of acculturation, which can impact body image [19].

While body dissatisfaction appears to negatively impact meeting step and calorie goals in BWL interventions, including those involving Hispanic/Latina women, research has generally not explored why or how, nor sought input from this population on how to address these barriers. The current study aimed to qualitatively investigate the perspectives of overweight Hispanic/Latina women on why poor body image may lead to lower rates of meeting diet and exercise goals in BWL interventions, and to gather suggestions on how to ameliorate these effects. A qualitative approach was used due to limited research on this subject in this population, indicating the utility of a participant-driven approach that allows members of the population to identify culturally relevant factors [20]. This study was conducted to identify potential factors that can be further explored with subsequent, adequately powered studies.

Materials and Methods

Participants and Procedures

Participants were Hispanic/Latina women recruited in the southwestern U.S. as part of a larger study on BWL intervention adherence barriers. Inclusion criteria mirrored those of BWL intervention trials for women: designated female at birth, > age 18, interested in weight loss, BMI ≥ 25 and ≤ 40 (upper limit enhances safety during physical activity in BWL programs), self-identified as Hispanic/Latina, and English proficiency. Exclusion criteria included a current eating disorder diagnosis or being pregnant. Data collection (March 2023 to February 2024) was terminated after three focus groups with 4-6 participants each (N = 14) since only one new code was generated during the second group and none were generated during the third.

Participants were recruited via flyers in community locations and from a community health center. The flyers advertised focus groups discussing barriers faced by overweight Hispanic/Latina women in weight-loss programs and ideas for improving interventions. Recruitment at the community health center was conducted face-to-face by the first author

and included staff and patients. Interested individuals privately reviewed the electronic consent form and were encouraged to ask questions before consenting to participate. The form highlighted that participation was voluntary and could be withdrawn at any time. The demographic survey was presented via Qualtrics survey software. This study was approved by the University of New Mexico Institutional Review Board, approval # 2207011040.

Focus groups were held on a later date at the community health center and were led by the first author (a clinical psychology doctoral student/Latina woman without lived experience being of a higher weight, who had participated in qualitative methods trainings and recurrently consulted with an expert) and an undergraduate co-facilitator (a non-Hispanic White woman with lived experience being of a higher weight) who took notes. Participants were reminded of the study purpose, encouraged to ask questions, and asked to keep the discussions private. The interviewer described BWL interventions, with key points visible on a whiteboard throughout. Focus groups answered four pilot-tested questions. The BI-related question was: “We know that the more Hispanic/Latina women dislike their bodies, the less likely they are to meet their diet and exercise goals in these weight-loss programs. Why do you think this is? How can we help?” Participants were redirected to the question when necessary and given 20 minutes maximum to discuss. Discussions were audio recorded and transcribed. Participants had weight¹ and height measured next. They were reminded of the study’s purpose, and given investigator contact information as well as educational and clinical resources related to eating and body image. A weight-management and body image workshop was offered as compensation. Slow recruitment prompted the addition of a \$30 gift card.

A questionnaire developed for this study assessed demographics such as participant age, weight, height, race, ethnic identity, generational status, number of children, annual household income, years of education, and employment. Participants also reported current or past involvement in formal weight-loss programs.

Data Analysis

Qualitative coding was conducted in Dedoose V9.0.12 (2023) [21]. Thematic analysis was used to identify codes. The coding team, consisting of three clinical psychology doctoral students and one licensed clinical psychologist with expertise in diet, exercise, and body image research, first read through the transcripts and then individually developed and assigned preliminary codes to participant responses after meeting and clarifying the purpose of each question [23]. Two coders identified as Hispanic/Latina women. Another

¹ Participants were weighed to ensure accurate BMI calculations since research indicates that self-reported weight can be inaccurate [22]. However, there were no significant differences between self-reported and measured weight in the current sample. Therefore, self-reported weight data were used as they were also available for the focus group non-completers.

coder had lived experience being of a higher weight, as did a graduate student who participated in coding discussions. To interpret the focus group transcripts as closely as possible to the way participants intended, we reflexively discussed interpretations throughout the coding.

Preliminary codes were discussed and refined collaboratively into a preliminary codebook, which was then iteratively revised into a finalized codebook. Each researcher independently applied this codebook to the entire transcript. Discrepancies were resolved by consensus in weekly meetings. Inter-rater reliability (IRR) was not calculated due to previously identified concerns about its utility [24]. Once final codes were assigned, the team met to organize them into overarching themes which also were iteratively refined.

Results

Participants

Thirty-one women were recruited (mean age = 49.9 years, $SD = 14.8$; average self-reported BMI = 30.3 kg/m², $SD = 3.5$); 14 of them completed the questionnaires and focus groups. Ten women did the focus group before the gift card compensation was added. Most participants (92.9%) were recruited through the community health care center and one was invited by a friend. Self-identified ethnicities most represented in the focus groups were “Latina” (35.7%), “Mexican” or “Mexican American” (28.5%), or “Spanish” or “Hispanic” (28.6%). Racial identities were White/Caucasian (64.3%) or “Other” (35.7). Most participants had a high school education or some college (35.7% each), were first- or second-generation immigrants (50% and 21.4%, respectively), had a household income < \$50,000 US dollars annually (64.3%), and were employed full-time (50%). The majority reported never having participated in a formal weight-loss program (64.3%). Contact the authors for additional demographics.

Qualitative Analysis

Body Image-Related Barriers to Reaching Diet and Exercise Goals

Participants identified three barrier themes (see Table 1). The most endorsed barriers were *comorbid mental health issues*, in which participants said that low self-worth may prevent women with poor body image from reaching their goals, and cultural attitudes about mental health prevented them from seeking help. Other themes were that *negative self-talk* and a *lack of progress* may diminish motivation. Detrimental body-related self-talk included comparisons with others or with a younger self. Participants reported that this type of self-talk, in addition to either gaining weight or not losing weight, might make people with poor body image feel hopeless. They also stated that Hispanic/Latina women may not focus on improving their own self-talk and body image because they often direct all their time and energy to their families.

Theme	Definition	Code	Example Quotation
Mental health	A comorbid mental health condition exacerbates the detrimental effects of body dissatisfaction	Comorbid mental health issues	<i>I feel the mental health... I think it's the key. Because we have problems with trauma, and we never deal with that first.</i>
		Cultural attitudes about mental health	<i>That's cultural, right? Like we don't, culturally- Hispanic, Latinos don't believe in depression and anxiety?</i>
		Low self- efficacy	<i>I think that's why we tend to block ourselves. And say 'oh no... I'm not going to lose weight because I'm never going to accomplish that because I'm going to keep eating whatever I'm eating</i>
		Low self- worth interferes with diet and exercise	<i>We dislike our bodies because we don't love ourselves, and if we don't love ourselves, how are we going to put exercise and, and good diet into, you know, into an action ... How are we going to get that motivation if we don't even love our bodies first.</i>
Lack of progress decreases motivation	Poor body image and a lack of progress make it difficult for the participant to maintain motivation for behavioral change	Gaining weight/lack of progress decreases motivation	<i>As you gain more weight, you have less motivation.</i>
		Hard to change habits	<i>I want to get in a habit because I think it has to become a way of living.</i>
Negative self-talk	Body dissatisfaction is related to negative self-talk which makes it hard to reach goals	Discouraged by comparison with a younger self	<i>I see myself... I'm not getting any younger. I cannot eat, I mean, I can eat a lot, but I'm gaining that weight, you know, before I can eat everything and still skinny.</i>
		Negative self-talk leads to avoidance of PA	<i>It's our self-talk... if it's negative then we're feeding that and that is creeping into like, oh, I can't walk... I'm just going to stay home. It's too cold... So disliking your body eliminates you from diet and exercise goal because... it's our own self-talk that is limiting us from getting up. How am I going to feel confident to go exercise if my self-talk is negative?</i>
		Social comparisons of body functionality	<i>I've disliked my body for many years. And it has kept me enclosed in my apartment when I was a little girl, you know? And I didn't want to go play because when I run, or I can't do a cartwheel because of the weight issue and then seeing my friends, that, they were just so agile and... they would just do it like nothing. And this whole level of confidence.</i>
		Feels hopeless	<i>So growing up like that [i.e., with poor body image], it just really, it makes you negative about your whole, like, how you look. You know, you're never really, I was never really satisfied...</i>
		Familism	<i>We need to turn that energy inward, and we've never been brought up like that because it's always everybody else and we're at the back of the line. Porque tienes familia [because you have a family]... And it, just, you're the last one.</i>

Note: PA = physical activity

Table1: Body Image Barriers to Reaching Diet and Exercise Goals

Body Image-Related Facilitators for Reaching Diet and Exercise Goals

Participants identified four facilitator themes (see Table 2). The most endorsed facilitator was to *incorporate mental health content* into the BWL intervention. In essence, the women said that encouraging self-care and mindfulness, building assertiveness, and teaching positive and adaptive thinking may help ameliorate the detrimental effects of poor body image on reaching one's goals. The next most identified theme, *provide multi-level programming*, included making sure basic needs were met, offering formal mental health care (in addition to including mental health content in the intervention, as noted in the previous theme), and facilitating cohesive small groups to motivate and support other participants in reaching diet and exercise goals.

The next most endorsed theme, *increase positive body image*, entailed emphasizing something other than appearance, promoting body acceptance, teaching media literacy skills (i.e., the ability to critically consume media to reduce internalizing of unrealistic appearance ideals; Paxton et al., 2022), and discouraging social comparisons [25]. The last theme was education, in which the women suggested teaching participants with poor body image about why making lifestyle changes would benefit their health and discussing the importance of making gradual changes. Although some of these suggestions were not directly related to body image, the participants felt strongly that providing this education would help motivate women with poor body image to reach their goals.

Theme	Definition	Code	Example Quotation
Educate	Teach participant why and how to make health-promoting lifestyle changes	Educate	<i>Having places where to go, so they train you how to exercise, how to do that.</i>
		Educate - benefits of exercise	<i>Try to encourage the person that 'well, if you lose the weight, this is going to benefit you in other ways like as far as your health is concerned. And of course, you'll look better.'</i>
		Give real life examples of dangerous consequences of not making lifestyle changes	<i>Letting them know that 'well, it would be healthier for you if you're at a healthy weight. Because otherwise you have high blood pressure, you have high blood sugar, you have high cholesterol, you're diabetic. You could have a stroke, have a heart attack because of your weight.'</i>
Incorporate mental health content	Incorporate content and skills training that will help participant improve their mental health	Build assertiveness to set boundaries	<i>I want to learn skills like psychologically building my... confidence to build those boundaries with my mom to say, you know what, mom? OK, you might feel that way, but I don't feel that way.</i>
		Encourage cognitive flexibility of perceived criticism	<i>I have to rewrite that script and I know that my mom, my mom is- just she wants me to be healthy. Ultimately is what she wants. And she's trying to be courteous in the way she tells me.</i>
		Encourage self-care	<i>Do always do one thing that will make your stress go out because it's so easy for you to get stressed, but then how am I reflecting it or taking it out of my life? With self-care, I think that is good.</i>
		Encourage mindfulness	<i>I've been listening to a lot of mindfulness</i>
		Find non-food rewards	<i>If you're sad or if you're happy, you're going to celebrate with food no matter what, you know? And, and that's one of the things that we should be able to change... whenever I feel happy, what am I going to do if it's, it's not going to be related to food... It could be related to something else... like an activity or something that, that it's going to give you a reward, right?</i>
		Help them hold themselves accountable	<i>It will- would have to be accountable to someone... next time you go to the meeting. Accountability, I guess, to someone.</i>
Provide encouragement/support	<i>Just try to encourage them.</i>		

Increase positive body image	Help participant increase aspects of positive body image	Discourage social comparisons	<i>To realize and to learn that I'm [participant X]. I'm not [participant Y], you know, I'm, I don't have to compare myself with others.</i>
		Don't focus on weight	<i>If we don't concentrate on, on weight because weight is a very, a very negative connotation. When- when people talk- tells me about my weight... I get hurt.</i>
		Emphasize something other than appearance	<i>Or maybe not put so much of an emphasis on bodies!</i>
		Promote body acceptance	<i>We have to accept each other. It doesn't matter how, but you're beautiful. Just because you're a human being.</i>
		Teach media literacy skills	<i>I want to learn skills like psychologically building my confidence to set boundaries...with social media.</i>
Provide multi-level programming	Provide support on multiple levels (individual and group)	Provide long term, consistent mental health care	<i>If you can have providers who are consistent, if a psychologist is always changing on me or I have a new clinician, that's not going to help me because it defeats the whole purpose, I'm set back and now I need to start over and tell my story all over again.</i>
		Offer mental health support	<i>I think you just have to concentrate more on mental health.</i>
		Make sure basic needs are being met	<i>I feel that wherever you go, people should focus on do you have food? Do you have a place? Or transportation, anything that... you can never educate our community if they're worried about 'where am I going to eat or where am I going to live in the next month or so because I don't have money to pay my rent.'</i>
		Individualize programs	<i>You need learn what exercise is good for... for example, my problem is my [gestures to stomach].</i>
		Help find motivation by facilitating social support	<i>I have to have someone who motivates, holds my hand.</i>
		Facilitate cohesive small groups	<i>I think support groups like this helps, you know, talking about it. Because I know like I don't really talk about it with like my husband.</i>

Note: PA = physical activity

Table2: Body Image Facilitators to Reaching Diet and Exercise Goals

Discussion

This study was conducted to identify body image-related barriers and subsequent facilitators to meeting step and calorie goals in BWL interventions among Hispanic/Latina women in the overweight range. Only 45% (n = 14) of the participants who completed the surveys attended a focus group. Although focus group participants were asked about body image-specific barriers and facilitators, several of the themes did not directly relate to body image. Nonetheless, participants seemed to conceptually link them to the construct. The women often appeared to conflate poor body image with low self-esteem or poor mental health in general, which is in line with research that indicates that constructs such as self-esteem and depression are closely linked to body dissatisfaction, possibly more so among Hispanic/Latine populations

[18,19,26]. Investigating how body image and related factors might affect weight-management behaviors in Hispanic/Latina women stands to optimize intervention outcomes for underserved populations worldwide, regardless of whether they are engaging in behavioral weight-loss programs alone or in combination with pharmacological or surgical interventions.

Body Image-Related Diet and Exercise Barriers

Mental Health: In accordance with previous research identifying depression as a barrier to adherence to BWL interventions, the women in the current study stated that general mental health issues, low-self efficacy, and low self-worth may make it difficult for women with extreme body dissat-

isfaction to reach diet and exercise goals, and that cultural attitudes about mental health interfere with treatment [8,27]. The negative relationship between body dissatisfaction and mental health is well established, including among Hispanic/Latina women, and there is evidence that eating-related self-efficacy negatively predicts disordered eating symptoms including body dissatisfaction [26,28]. Participants also reported overeating when anxious or depressed, which is consistent with research with Hispanic/Latina women that found depressive symptoms negatively associated with adherence to BWL interventions, as defined by meeting step and calorie goals [18].

Previous research has also indicated that negative body comments from family members indirectly increase Latinas' depressive symptoms through body dissatisfaction [29]. One hypothesis is that familism, the cultural value of familial affiliation in which the needs of the family comes before the needs of the individual, may make familial advice more salient. Another recent study found that negative family messages about eating and weight were significantly associated with increased depressive symptoms among Latinas, particularly if they endorsed higher internalization of U.S. beauty ideals [30].

Negative Self-Talk: Participants reported that negative self-talk, such as negatively comparing oneself to others or to a younger version of themselves, may make women with poor body image feel hopeless and avoid physical activity. Research shows that weight-stigma, weight-bias internalization, and fears of negative appearance evaluations by others are associated with avoidance of physical activity, possibly via body-related shame [14]. The latter appears especially relevant for the women in the current study; one woman explained how bodily shame had prevented her from being active since childhood, which in turn had perpetuated poor body image.

Lack of Progress Decreases Motivation: Lastly, participants in the current study said that gaining weight or failing to lose weight may decrease motivation and make it difficult for women with poor body image to reach their diet and exercise goals. Similarly, participants in another study reported that it is difficult to adhere to a treatment perceived as ineffective [31].

Body Image-Related Diet and Exercisers Facilitators

Incorporate Mental Health Content: Participants most frequently reported that incorporating mental health content into BWL interventions might benefit women with poor body image. They colloquially identified common features of psychotherapeutic interventions such as building assertiveness skills, improving cognitive adaptability, and utilizing mindfulness. Several of these were tested in a small pilot study which included communication and cognitive restructuring training [32]. Women who received this training displayed greater increases in self-efficacy and decreases in depression than

those who received self-monitoring and calorie/step goal training. There were no differences in meeting step or calorie goals, but this could be due to the small sample. Practices such as mindfulness have been observed to moderate the association between body acceptance during exercise and body appreciation in young adults, particularly for those of a higher weight, which is in turn associated with participation in physical activity [13,33]. It may be useful to incorporate such practices into BWL interventions to help women reach their health and fitness goals.

Provide Multi-Level Programming: The second most identified facilitator was to provide support on multiple levels, such as the individual level (i.e., making sure basic needs are met, offering individualized mental health support) and the group level (i.e., facilitating cohesive small groups). Poor mental health appears to be an important barrier to engagement in healthy lifestyle behaviors, which reinforces the potential utility of offering individualized mental health care [18]. Social support and acceptance appear to promote adaptive eating styles and positive body image, including in group physical activity settings, and are a frequently identified method of making BWL interventions culturally appropriate [31,34,35]. A supportive environment in BWL interventions may enhance adherence and help participants reach lifestyle goals.

Increase Positive Body Image: The third most common facilitator theme was to focus on increasing levels of *positive* body image, or the positive experience of inhabiting the body related to an overarching love and respect for the body regardless of its appearance [36]. Specifically, participants recommended promoting body acceptance, discouraging social comparisons, emphasizing something other than weight or appearance, and teaching media literacy skills. These suggestions map onto theorized components of positive body image (i.e., body appreciation, broadly conceptualizing beauty, body acceptance, and interpreting information in a body-protective manner [36]. Higher positive body image is related to higher levels of physical activity, so BWL interventions may benefit from positive body image promotion. Importantly, participants emphasized that focusing on weight and appearance led to feelings of guilt, shame, and hopelessness [13]. They suggested focusing on nutrition over calories and on function and well-being over appearance and weight, which echoes calls to cease conducting interventions with a "weight-normative" focus [37]. Participants' suggestions also are in line with evidence that dieting for appearance rather than health reasons is linked to body dissatisfaction, and that monitoring weight sometimes causes psychological distress, attrition and binge eating [38-40].

Health-promotion interventions that take a "weight-neutral" approach, such as Health at Every Size (HAES), do seem to lead to improvements in mental well-being and body image, but their impacts on health behaviors and markers appear to be inconsistent [41]. One review of HAES interventions observed decreases in cholesterol, body dissatisfaction,

and disordered eating behaviors, and increases in overall well-being, but evidence for improvements in diet, increases in physical activity and energy expenditure, and reductions in BMI was inconsistent (though the latter typically is not a target of these interventions) [42]. A meta-analysis comparing weight-neutral approaches with traditional weight-loss approaches found them to be comparable for physical health, physical activity, and body dissatisfaction outcomes. Still, the strength of evidence supporting weight-neutral approaches ranged from strong for weight reductions to weak for critical outcomes such as blood pressure, quality of life, and physical activity [43]. These findings suggest, that while weight-neutral interventions show some promise, their effectiveness across various health domains remains inconsistent. Notably, weight-neutral approaches might have lower attrition levels than weight-loss approaches, indicating higher acceptability [44]. Given the high attrition and low adherence for BWL interventions, promising methods that facilitate implementation should not be overlooked. Yet these studies have mostly been conducted with White women and thus it is unclear whether they are generalizable to Hispanic/Latina women. Rauchwerk and colleagues (2020) argued that the HAES paradigm's foundation in intersectionality and social justice makes it particularly relevant for women of color, but a study discovered that Latino immigrants found some concepts from this paradigm, such as eating only until satiety, to be culturally incongruent [45,46]. Empirical testing is needed to determine the utility of these approaches for this and other underserved populations.

Recommendations for Future Research

The women in the current study identified several strategies for improving the traditional approach to weight loss that may help women with extreme body dissatisfaction. Given the small sample size and qualitative nature of these data, empirical testing must be done to validate their suggestions. We offer the following recommendations for future researchers of health-promotion efforts with Hispanic/Latina women.

1. Include mental health content in BWL interventions to support women with poor body image. The focus should incorporate mindfulness, communication, and adaptive thinking.
2. Offer individualized, formal mental healthcare in addition to focusing on lifestyle behaviors.
3. Facilitate social support among group members to promote feelings of belonging.
4. Promote positive body image. Interventionists should consider explicitly working to improve body image rather than hoping for it to be impacted indirectly through weight loss. Consider promoting body acceptance, focusing on something other than weight loss, and teaching media literacy skills.
5. Extend these strategies to medical weight loss contexts.

While the current study focused on behavioral interventions, participants' insights may also benefit individuals undergoing medically supported weight loss approaches, including pharmacological and surgical interventions. Future work should explore whether incorporating mental health content, social support, and strategies to improve body image into these programs improves adherence to weight loss treatments more broadly.

Strengths and Limitations

This study has several limitations. First, the small sample limits generalizability. Second, the women who did not complete the focus groups had significantly higher average BMIs than those who participated, so these results might not generalize to women with higher weights or extreme body dissatisfaction. These results also may not generalize to men or to women who only speak Spanish, and to individuals from other countries. Lastly, no members of the research team have lived experience being both Hispanic/Latina and of a higher weight. It is possible that our team was either unrelated to the participants, which may have affected focus group dynamics, or biased in our interpretations of the transcripts. This study has notable strengths. Qualitative methods are helpful when studying underrepresented communities, particularly when the relevance of a concept to that community is unestablished [20]. This method prioritizes the voices and lived experiences of the target sample in identifying solutions, rather than resorting to external assumptions or frameworks. Another strength was the use of focus groups, as participants quickly connected and built on one another's ideas. While focus groups can favor socially acceptable responses, many women in the sessions expressed thoughts and feelings that diverged from those of others [46]. Also, group members demonstrated moments of vulnerability and appeared candid in sharing thoughts and emotions.

Conclusion

The women in the current study identified body image-related barriers and possible facilitators to adherence among Hispanic/Latina women participating in BWL interventions. In general, the women suggested that healthcare professionals should help participants improve their mental health, both by incorporating skills into the overall intervention and by offering individualized mental health care. Additionally, they should explicitly focus on improving body image and facilitating social support. It is notable that some of these suggestions currently are utilized in healthy living interventions, but others have not yet been applied to this population. Importantly, since it appears that these women were unaware that some components are included in currently available interventions, these interventions might benefit significantly from improved marketing or dissemination. Although the efficacy and effectiveness of these suggestions needs to be

established via empirical testing, they present opportunities to facilitate intervention implementation and promote health in this and eventually other underserved populations. As the landscape of weight management continues to change with the development of new medical interventions, these recommendations likely hold relevance beyond the behavioral realm alone. Supporting both treatment adherence and emotional well-being amongst those seeking to lose weight ensures that the approaches we promote are comprehensive, person-centered, and culturally responsive across modalities.

Statements and Declarations

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Ethics Approval: This study was approved by the Institutional Review Board of the University of New Mexico. This study was performed in line with the principles of the Declaration of Helsinki.

Availability of Data and Material: Data are available from the authors upon request.

Code Availability: The coding manual for the qualitative data is available upon request.

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Authors' contributions: Pacheco: Writing – original draft, Methodology, Formal analysis, Conceptualization, Project administration. Sutherland: Writing – review & editing, Data curation. VanderJagt: Writing – review & editing, Data curation. Peterson: Writing – review & editing, Data curation. Smith: Writing – review & editing, Methodology, Conceptualization, Data curation.

Declaration of Interests: The authors report there are no competing interests to declare.

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