Associations among Acculturative Stress, Body Ideal Internalization, Body Dissatisfaction and Disordered Eating Behaviors among Cisgender Heterosexual and LGBT People of Color

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Associations among Acculturative Stress, Body Ideal Internalization, Body Dissatisfaction and Disordered Eating Behaviors among Cisgender Heterosexual and LGBT People of Color

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University

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Acknowledgments

I extend my deepest gratitude to my parents and siblings, whose unwavering support, encouragement, and love have been my anchor throughout this journey. Each of you is a pillar of my life, and I would have never reached these milestones -let alone move 3,000 miles away- without your endless belief in me. This achievement is a testament to the years of healing that our family has conquered together.

A huge heartfelt thank you to my partner, best friends, and lab mates for bringing so much laughter and light into my life.

To Dr. Marisol Perez, thank you for seeing potential in me and inspiring me to pursue a Ph.D.

Lastly, a special thank you to my mentor and committee chair, Dr. Suzanne Mazzeo. Your guidance, feedback, and editing skills have been invaluable throughout the development of this thesis. I am equally grateful to my esteemed thesis committee members, Drs. Annie Haynos and An Pham. Your insights and encouragement, both in our meetings and within the classroom, have contributed significantly to my professional journey.
Abstract

Research supports the relation between acculturative stress and disordered eating behaviors (DEBs) across racially and ethnically diverse groups of men and women. However, there is minimal research examining factors that further explain the relation between acculturative stress and DEBs. Also, this relation has not been evaluated in racially and ethnically diverse LGBT individuals. The current study aimed to address these gaps by examining the role of thin-, muscular-, and hourglass-ideal internalization and body dissatisfaction as mediators of the relation between acculturative stress and disordered eating behaviors among cisgender heterosexual Black, Latine, Asian American, Multiracial men and women and LGBT men and women of color from a non-university sample ($N=1,490$). Path analysis evaluated the associations among acculturative stress, body image ideals, body dissatisfaction and disordered eating behaviors among each subsample. The relation between acculturative stress and disordered eating behaviors was significant in all racial and ethnic groups, with the exception of Multiracial women. Additionally, all evaluated body image ideals mediated the relation between acculturative stress and disordered eating behaviors for cisgender heterosexual Black, Asian American and Latine women. However, the full model examining body image ideals and body dissatisfaction as mediators of acculturative stress and disordered eating behaviors was not significant for any of the groups. The current study contributes to a more comprehensive understanding of the complex interactions among identity, acculturative stress, body image, and eating behaviors among individuals with marginalized identities. Clinicians and practitioners should focus on fostering support around the acculturation process as well as positive body image.

Keywords: Disordered Eating, Acculturative Stress, Ideal-Internalization, Body Image
Introduction: Disordered Eating Behaviors

Eating disorders (EDs) are defined as severe and persistent disturbances in eating behaviors which lead to excessive or insufficient food intake and are associated with emotional distress (5th ed.; DSM-5; American Psychiatric Association, 2013). The most common forms of EDs are anorexia nervosa, bulimia nervosa, binge eating disorder and other specified feeding and eating disorder (American Psychiatric Association, 2013). According to an international systematic review and meta-analysis of 33 studies conducted by Qian et al., (2022), lifetime prevalence of anorexia nervosa in the general population ranges from 0.06% to 0.31%; from 0.33% to 1.02% for bulimia nervosa, and from 1% to 2.17% for binge eating disorder. Moreover, the severity and significance of subthreshold disordered eating behaviors (e.g., binge eating, purging, self-induced vomiting, laxative use, compulsive exercising, and extreme dieting) should not be underestimated (National Institution of Mental Health, 2023). Subthreshold EDs are associated with severe negative psychological and physical outcomes such as depression, anxiety, low self-esteem, suicidal ideation (Wu et al., 2019; Qian et al., 2022), and the development of threshold eating disorders (Stice et al., 2011). In sum, disordered eating and unhealthy weight and shape control behaviors encompass a spectrum of dangerous practices that are associated with extremely negative consequences (Bould et al., 2017).

Historically, research on disordered eating has focused on cisgender, heterosexual white adolescent women (Brandsma, 2007); however, these behaviors occur across a variety of ages, genders, races, ethnicities, and sexual orientations (Calzo et al., 2018; Rodgers et al., 2018). Further, historically, people of color have been excluded and exploited in psychological research. I have intentionally chosen to capitalize Black, Asian American, Latine and Multiracial and use lower case to refer to “white” to raise awareness about the marginalization of diverse racial and ethnic identities. Further, the capitalization of the word “white” may in itself be an example of white supremacy (see https://www.cjr.org/analysis/capital-b-black-styleguide.php for more information) Lastly, Latine is a term that has been coined by the Spanish speaking and Latin American community used to describe all genders within the community.
eating disorders and disordered eating behaviors have many etiological influences including biological (e.g., genetics), neurobiological (e.g., hormone regulation), psychological (e.g., personality traits, childhood sexual abuse), and sociocultural (e.g., Western cultural influence) factors (Rikani et al., 2013). The role of sociocultural factors in the development of disordered eating is particularly relevant to individuals from marginalized groups (Akoury et al., 2019). The following paragraphs elaborate on the sociocultural theory of body dissatisfaction and disordered eating behaviors for marginalized groups.

A Sociocultural Theoretical Perspective on Body Dissatisfaction and Disordered Eating Behaviors

Sociocultural theory is frequently used to conceptualize the etiology and maintenance of disordered eating behaviors (Rodgers et al., 2018; Feldman & Meyer, 2007; Parker & Harriger, 2020). One of the most widely tested sociocultural models of disordered eating is the Tripartite Influence Model (Thompson et al., 1999). This model posits that pressure to conform to unrealistic body image ideals contributes to the development of body dissatisfaction and disordered eating behaviors. Further, this model states that body-ideal internalization arises when individuals are exposed to Western appearance ideals through various sociocultural agents (i.e., media, peers, and family; Keery et al., 2004). As a result, they might feel pressure to attain these ideals through unhealthy eating behaviors such as excessive exercise, extreme dieting, or laxative use (Thompson et al., 1999). Although this study will not be explicitly testing the Tripartite Influence Model, several constructs included within the model are a focus of the investigation. Therefore, it is presented in Figure 1.
Subsequent sociocultural models of disordered eating have expanded to include internalization of other body image ideals such as the muscular (Hazzard et al., 2019; Frederick et al., 2022b; Tylka & Andorka, 2012), and hourglass ideals (McComb & Mills, 2022). Finally, sociocultural models, such as the Tripartite Influence Model, have been used to conceptualize disordered eating behaviors in samples of youth and adolescents (Keery et al., 2004), adults (Thompson et al., 1999), individuals with diverse racial and ethnic identities (Burke et al., 2021) and LGBT (i.e., lesbian, gay, bisexual and transgender) individuals (Hazzard et al., 2019; Muratore et al., 2022; Schaefer et al., 2021). However, this literature has rarely included culture-specific variables, such as acculturative stress (i.e., the pressure to adapt one’s beliefs, attitudes, and behaviors to the dominant culture; Kwan et al., 2018; Burke et al., 2020). Addressing the influence of culture specific factors, such as acculturative stress, on constructs within the Tripartite Influence Model might enhance understanding of the development and maintenance of disordered eating behaviors in diverse racial and ethnic groups (Burke et al., 2021a). The following sections review the literature on acculturative stress and its associations with
constructs included in the Tripartite Influence Model such as, thin-, muscular-, and hourglass-ideal internalization, and body dissatisfaction.

**Acculturative Stress**

One culturally specific factor relevant to understanding disordered eating in marginalized groups is stress due to acculturation (i.e., acculturative stress; Kalantsiz et al., 2023). Acculturation is the psychosocial process of assimilating one’s cultural values, norms, and behaviors into the dominant culture (Berry, 1998). Specifically, the stress associated with adapting one’s beliefs, attitudes and behaviors is defined as acculturative stress (Kwan et al., 2018). Although research on acculturation typically focuses on individuals’ experiences related to moving from one country to another, such as immigration (Khan et al., 2018) or seeking refuge (Hormozi et al., 2018), acculturative stress also applies to individuals who are born in the United States but are balancing their cultural heritage with that of the current mainstream culture (Andreouli, 2013; Akoury et al., 2019). Sociocultural theory posits that individuals with minoritized racial and ethnic backgrounds experience acculturative stress due to pressure to conform to Western beauty ideals such as the thin-ideal (Warren & Akoury, 2020). With respect to body image specifically, for nearly all individuals, these ideals are largely unattainable. Consequently, this body-related acculturative stress perpetuates body dissatisfaction (Quiñones et al., 2022), and, in turn, can lead to the use of disordered eating behaviors as a coping mechanism (Heatherton & Baumeister, 1991).

Empirical support for these associations between acculturative stress and disordered eating and related constructs was provided in a meta-analysis conducted by Kalantsiz and colleagues (2023), which included 14 studies with a total of 2681 participants across all samples. Meta-analytic results indicated that acculturative stress is related to higher disordered eating
symptomatology. Another systematic review conducted by Warren and Akoury (2020), supported links among acculturative stress, thin-ideal internalization, and disordered eating behaviors. Specifically, their results indicated that acculturative stress was positively associated with thin-ideal internalization across racially and ethnically diverse samples. Although these studies provide critical information about the relation between acculturative stress and disordered eating behaviors, a significant limitation of this work is the paucity of literature exploring the mechanisms that could further explain this relation. The current study extends this work by investigating the associations among acculturative stress, thin-, muscular- and hourglass-ideal internalization, body dissatisfaction, and disordered eating behaviors across groups of cisgender, heterosexual, racially and ethnically diverse men and women, as well as in samples of LGBT (i.e., lesbian, gay, bisexual and transgender) people of color.

**Body Image Ideal Internalization**

Body image internalization is defined as the acceptance, adoption and internalization of sociocultural attitudes and beliefs of Westernized standards of beauty that are often unattainable and unrealistic (Thompson et al. 1999; Carlson Jones, 2004). Often these attitudes and beliefs prioritize an ultra-thin physique (i.e., thin-ideal internalization; Thompson et al., 1999); however, recent literature has also examined two other body image ideals: muscular (Bozsik et al., 2018) and hourglass (Hernández et al., 2021). It is important to highlight that these body image ideals are not necessarily independent, as individuals might aspire to achieve several ideals simultaneously. For example, a study by Hunter et al. (2017) indicated that Black women endorsed both the thin and hourglass ideals. Specifically, participants reported familial pressures to embody an hourglass ideal, while simultaneously feeling societal pressure to conform to the Western, thin-ideal. These conflicting pressures reflect the complex sociocultural influences on
body image ideals for people of color. Further, body image ideal internalization is reported across samples of cisgender men and women, gender diverse individuals, and those of all races, ethnicities, and sexual orientations (Parker & Harriger, 2020; Paterna et al., 2021; Warren & Akoury, 2020). Lastly, internalization of thin-, muscular- and hourglass-body image ideals is associated with increased body dissatisfaction and disordered eating behaviors (Hernández et al., 2021; Thompson et al., 1999). The following paragraphs provide further detail on the existing literature concerning internalization of the thin-, muscular- and hourglass-ideals.

**Thin-Ideal Internalization**

Thin-ideal internalization is defined as the extent to which an individual subscribes to the idea that an ultra-thin body is the most attractive (Stice et al., 2011; Thompson et al., 1999). Thin-ideal internalization is one of the most highly researched constructs in the literature addressing disordered eating in cisgender, heterosexual, emerging adult women (Grogan, 2016). Additionally, longitudinal studies conducted with samples of women living in the U.S. have indicated that thin-ideal internalization predicts body dissatisfaction and disordered eating behaviors (Howard et al., 2020; Stice et al., 1998).

However, rates of thin-ideal internalization vary across gender, sexual orientation, and racial and ethnic identities (Frederick et al., 2022a; Warren & Akoury, 2020). For example, on average, cisgender men are less likely to endorse internalizing a thin-ideal, compared with cisgender women (Paterna et al., 2021; Frederick et al., 2022a). Additionally, cross-sectional studies indicate that transgender women were more likely to report internalizing the thin ideal, compared with their cisgender counterparts (Watson et al., 2017); gay men reported increased thin-ideal internalization (Frederick et al., 2022a), and Asian American men endorsed significantly higher levels of thin-ideal internalization compared with Black men (Frederick et
Nevertheless, limited research has investigated thin-ideal internalization and the intersection of diverse sexual orientation, gender, and racial/ethnic identities.

**Muscular-Ideal Internalization**

The muscular or athletic ideal emphasizes a lean body with visible muscle definition (i.e., a muscular and toned appearance; Bell et al., 2016). Internalization of the muscular ideal is associated with numerous problematic behaviors, including dieting, bulimic symptoms, and compulsive exercise (Bell et al., 2016). Cisgender men typically exhibit the highest level of muscular-ideal internalization (Paterna et al., 2021), compared with other gender groups. Moreover, there are reported differences in muscular-ideal endorsement based on gender, sexual orientation, and racial and ethnic identity (Frederick et al., 2022a; Warren & Akoury, 2020). For example, Frederick and colleagues (2022a) reported that cisgender lesbian women manifested significantly higher levels of muscular-ideal internalization than cisgender heterosexual women. Further, these researchers indicated that Latine women endorsed higher levels of muscular-ideal internalization compared with Black and Asian American women. Finally, there is a paucity of research examining the associations among muscular-ideal internalization, body dissatisfaction and disordered eating within samples of racial/ethnically diverse LGBT individuals. Therefore, it is crucial to explore associations among muscular-ideal internalization, body dissatisfaction, and disordered eating in different populations and identities, as well as at the intersection of these identities.

**Hourglass-Ideal Internalization**

In recent years, there has been growing recognition of the increased endorsement of a curvy/hourglass ideal (Hernández et al., 2021). This ideal still emphasizes thinness, but also highlights the importance of a narrow waist, paired with a wider breast and hip area (Hernández
et al., 2021), thus the body is shaped like an hourglass. The curvy/hourglass ideal has predominantly been researched in samples of cisgender racial and ethnic minoritized women (Hernández et al., 2021), and outcomes indicate that women of color who endorse this ideal also typically endorse a thin ideal (Hunter et al., 2017; Viladrich et al., 2009) which might increase their risk of negative outcomes. However, there are some mixed findings regarding the degree to which women of different racial and ethnic backgrounds internalize the hourglass ideal (Lowy et al., 2021). Recent literature has shown that women from different racial and ethnic backgrounds (i.e., Black, Latine, Asian American, white) report similar levels of hourglass-ideal internalization (Hernández et al., 2021), while other studies suggest that Black women endorse higher levels of internalization of this ideal, compared with white women (Hunter, et al., 2021; Overstreet et al., 2010). Additional research investigating the internalization of the hourglass ideal, and its relation to body dissatisfaction and disordered eating behaviors, is needed in larger samples of racially and ethnically diverse women.

**Body Dissatisfaction**

Body dissatisfaction is the negative evaluation, perception and overevaluation of one’s body image including certain body parts, shape, size, or weight (Yu & Perez, 2020). It is considered one of the most critical contributors to disordered eating behaviors (Nagata et al., 2020a; Lamntz et al., 2018; Rodgers et al., 2018) across all age, gender, racial, and ethnic groups (Quittkat et al., 2019). A meta-analysis found that the prevalence of women reporting body dissatisfaction ranged from 11-72%, while for men it was 8-61%. These results are somewhat surprising, as it is often considered typical for women to endorse considerably more body dissatisfaction, compared with men. However, the authors of this study posited that the variation in results might relate to the inconsistent measurement of body dissatisfaction across studies (Fiske et al., 2014). Further, it is typically reported that white
individuals endorse higher levels of body dissatisfaction than people of color (DeBraganza & Hausenblas, 2010; Dye, 2016). Nonetheless, current literature suggests that there are more similarities than differences in reported body dissatisfaction across groups of white, Black, Latine and Asian American men and women (Grabe & Hyde, 2006; Olson et al., 2020). Thus, body dissatisfaction is not a problem exclusive to white women, but affects both men and women from different racial and ethnic backgrounds (Grabe & Hyde, 2006). However, it is important to highlight that culture and society play a significant role in creating beauty norms (O’Brien et al., 2009). Moreover, these ideals center cisgender, heterosexual, Western Europeans. Thus, individuals with different racial/ethnic and/or sexual/gender identities might not endorse these ideals. This underscores the need for a more culturally sensitive examination of body dissatisfaction within these communities by including culture specific factors, such as acculturative stress.

**Disordered Eating Behaviors in Cisgender Heterosexual Monoracial People of Color**

There is a considerable amount of literature documenting disordered eating behaviors across racial and ethnic groups (Rodgers et al., 2018; Burke et al., 2021a; Frederick et al., 2022a, b); however, there are mixed results regarding the prevalence of specific disordered eating behaviors in these groups (Rodgers et al., 2018). For example, in a sample of 5,435 participants, Franko and colleagues (2007) found no significant differences in the prevalence of binge eating, restrictive eating, vomiting or compulsive exercise across Black, Latine, Asian American, and white undergraduate men and women ($M_{age}=24.91$). On the other hand, Burke and colleagues (2021a) did identify significant differences in levels of dietary restraint in Black, Latine, Asian American and white undergraduate women ($M_{age}=19.57$). However, an overall limitation of research in this area is the relative lack of diversity in these samples. For example, Franko and colleagues’ (2017) sample included 5,433 college aged participants, of whom 85.6% identified
as white, and 87.1% identified as female. Burke and colleagues’ (2021a) sample was more racially and ethnically diverse, but, nonetheless, 66.4% of their participants identified as white college women, highlighting the need for additional research in community based racially and ethnically diverse samples.

As previously reviewed, several studies have examined the association of factors within the Tripartite Influence Model, such as thin-, muscular- and hourglass-ideal internalization, body dissatisfaction and disordered eating behaviors in different racial and ethnic groups (Rodgers et al., 2018; Beccia et al., 2019; McEntee et al., 2021). However, less research has investigated the relations among the variables within the Tripartite Influence Model, and their association with acculturative stress. This latter construct might be particularly relevant for racially and ethnically diverse individuals (Cotter et al., 2015; Yu & Perez, 2021). The following sections, as well as in Tables 1 and 2, review the literature on acculturative stress, and thin-, muscular- and hourglass-ideal internalization, and discuss their relations with body dissatisfaction and disordered eating behaviors in Black, Asian American, and Latine cisgender heterosexual men and women.
### Table 1

Studies Examining the Relation Between Acculturative Stress, Body-Image Ideal Internalization, Body Dissatisfaction and Disordered Eating Behaviors among Black, Asian American and Latine Women

<table>
<thead>
<tr>
<th>Author</th>
<th>N</th>
<th>Sample</th>
<th>Acculturative Stress</th>
<th>Thin-Ideal</th>
<th>Muscular-Ideal</th>
<th>Hourglass-Ideal</th>
<th>Body Dissatisfaction</th>
<th>Eating Pathology Measure</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hernández et al., 2021</td>
<td>916</td>
<td>Subsamples of Black, Latine, Asian American and White women</td>
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<td></td>
<td>The Hourglass Body Shape Ideal Scale</td>
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<td>Eating Disorder Examination Questionnaire - Global</td>
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<tr>
<td>Frederick et al., 2022 a</td>
<td>12,151</td>
<td>Subsamples of White, Latine, Black, Asian American (n=6327) women and men</td>
<td></td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire -4-Thin Subscale</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire 4- Muscular Subscale</td>
<td></td>
<td></td>
<td></td>
<td>Thin-ideal: Latine women reported significantly more than Black women, no significant differences between other groups.</td>
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<td>Pressures: Latine women reported highest levels</td>
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<tr>
<td>Frederick et al., 2022 b</td>
<td>12,151</td>
<td>Subsamples of White, Latine, Black, Asian American (n=6327) women and men</td>
<td></td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire -4-Thin Subscale</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire 4- Muscular Subscale</td>
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<td></td>
<td></td>
<td>Thin→ Body Satisfaction: Significant relation for all groups; strongest relationship for Black women compared to Latine and Asian American women.</td>
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<tr>
<td>Study</td>
<td>N</td>
<td>Sample Details</td>
<td>Measures</td>
<td>Findings</td>
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<tr>
<td>Burke et al., 2021a</td>
<td>1167</td>
<td>Subsamples of white, Latine, Black, Asian American women</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire -4-Thin Subscale</td>
<td>Associations between thin-ideal, body satisfaction and dietary restraint was significant across all groups. Body satisfaction: A &lt; L &lt; W; B &lt; A. Dietary restraint: A; B &lt; L; W.</td>
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<td>Perez et al., 2002</td>
<td>118</td>
<td>Black, Latine and white undergraduate women</td>
<td>The Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale</td>
<td>Body dissatisfaction and acculturative stress were associated with increased bulimic symptoms in a sample of Latine and Black women.</td>
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<tr>
<td>Gordon et al., 2010</td>
<td>276</td>
<td>Subsamples of Latine, Black and white undergraduate women</td>
<td>The Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale</td>
<td>Acculturative stress was associated with bulimic symptoms among Black, but not among Latine women. Acculturative stress was not associated with body dissatisfaction for Black or Latine women.</td>
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<tr>
<td>Kroon Van Diest et al., 2014</td>
<td>247</td>
<td>Subsamples of Asian American, Black and Latine undergraduate women</td>
<td>The Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale</td>
<td>Acculturative stress was associated with bulimic symptoms across Black, Asian American and Latine groups. Acculturative stress moderated the relation between body satisfaction and dietary restraint.</td>
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<tr>
<td>Study</td>
<td>Sample Description</td>
<td>Study Design</td>
<td>Measures</td>
<td>Key Findings</td>
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<tr>
<td>Kwan et al., 2018</td>
<td>Asian American, Black, Latine, Alaskan Native, and other</td>
<td>Cross-sectional</td>
<td>Drive for Muscularity Scale</td>
<td>Acculturative stress was associated with drive for muscularity among the women.</td>
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<td>undergraduate women (n=110) and men</td>
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<td>Eating Disorder Inventory-Body Dissatisfaction subscale</td>
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<td>Eating Disorder Examination Questionnaire - Bulimic subscale</td>
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<td>Eating Disorder Examination Questionnaire - Global and Eating Disorder Inventory - Body Dissatisfaction subscale</td>
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<tr>
<td>Akoury et al., 2019</td>
<td>Asian American and multiracial women</td>
<td>Cross-sectional</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire -4- thin subscale</td>
<td>Acculturative stress was associated with disordered eating behaviors.</td>
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<td></td>
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<td>Eating Disorder Examination Questionnaire - Global</td>
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<tr>
<td>Simmons &amp; Limbers, 2019</td>
<td>Latine and non-Latine middle and high school girls (n=177) and boys</td>
<td>Cross-sectional</td>
<td>The Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale</td>
<td>Acculturative stress was associated with disordered eating behaviors.</td>
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<td>Emotional Eating Scale for Children and Adolescents</td>
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<td></td>
<td>Acculturative stress: Non-Latine &lt; Latine sample</td>
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<td></td>
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<td>Acculturative stress was associated with higher levels of emotional eating in the overall Latine sample</td>
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<tr>
<td>Menon &amp; Harter, 2012</td>
<td>399</td>
<td>Mixed gender sample of Latine women (n=252) and men</td>
<td>Riverside Acculturative Stress Inventory</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire -4- thin subscale</td>
<td>Body Esteem Scale and The Body Areas Satisfaction Questionnaire</td>
<td>Thin-ideal internalization moderated the relation between acculturative stress and negative body image (i.e., body dissatisfaction, body esteem) in the general sample.</td>
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</tbody>
</table>
## Table 2

Studies Examining the Relation Between Acculturative Stress, Body-Image Ideal Internalization, Body Dissatisfaction and Disordered Eating Behaviors among Black, Asian American and Latine Men

<table>
<thead>
<tr>
<th>Author</th>
<th>N</th>
<th>Sample</th>
<th>Acculturative Stress</th>
<th>Thin-Ideal Measure</th>
<th>Muscular-Ideal Measure</th>
<th>BD Measure</th>
<th>Eating Pathology Measure</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frederick et al., 2022 a</td>
<td>12,151</td>
<td>Subsamples of White, Latine, Black, Asian American women and men (n=5293)</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire-4-Thin Subscale</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire-4-Muscular Subscale</td>
<td>Multidimensional Body-Self Relations Questionnaire - Appearance Evaluation Subscale</td>
<td>Thin-ideal: Latine men reported significantly higher levels than Black men. No other significant differences.</td>
<td></td>
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<tr>
<td>Kwan et al., 2018</td>
<td>187</td>
<td>Asian American, Black, Latine, Alaskan Native, and other undergraduate women and men (n=77)</td>
<td>The Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale</td>
<td>Drive for Muscularity Scale</td>
<td>Eating Disorder Examination Questionnaire - Global and Eating Disorder Inventory – Bulimic subscale</td>
<td>Acculturative stress was associated with a variety of disordered eating symptoms but not body dissatisfaction among the sample. Acculturative stress was not associated with drive for muscularity among the men. Acculturative stress was associated with drive for thinness among both men and women.</td>
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<td>Simmons &amp; Limbers, 2019</td>
<td>278</td>
<td>Latine and non-Latine middle and high school</td>
<td>The Societal, Attitudinal, Familial and Environmental</td>
<td>Eating Disorder Examination Questionnaire - Global and Eating Disorder Inventory – Bulimic subscale</td>
<td>Emotional Eating Scale for Children</td>
<td>Acculturative stress: Non-Latine &lt; Latine sample</td>
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<td>Study</td>
<td>Sample Size</td>
<td>Gender</td>
<td>Acculturative Stress Scale</td>
<td>Additional Measures</td>
<td>Findings</td>
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<td>Menon &amp; Harter, 2012</td>
<td>399</td>
<td>Latine women and men (n=147)</td>
<td>Riverside Acculturative Stress Inventory</td>
<td>Sociocultural Attitudes Towards Appearance Questionnaire-4-Thin Subscale</td>
<td>Body Esteem Scale and The Body Areas Satisfaction Questionnaire</td>
<td>Thin-ideal internalization moderated the relation between acculturative stress and negative body image (i.e., body dissatisfaction, body esteem) in the general sample.</td>
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<td>Warren &amp; Rios, 2012</td>
<td>100</td>
<td>Latine men</td>
<td>The Societal, Attitudinal, Familial and Environmental Acculturative Stress Scale</td>
<td>The Muscle Appearance Satisfaction Scale</td>
<td>Acculturative stress was associated with negative body image.</td>
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Disordered Eating and Related Constructs in Black Samples

Compared with Latine, Asian American and white women, Black women typically endorse the lowest levels of dietary restraint and the highest level of body satisfaction (Burke et al., 2021a). However, Black women’s levels of binge eating and bulimic symptoms are comparable to those of women from other racial and ethnic groups (Bardone-Cone & Boyd, 2007; Pike et al., 2001; White & Grilo, 2005). Further, compared with white and Asian American men, Black men report higher body satisfaction. Additionally, they endorse lower negative feelings about weight gain due to binge eating compared with men from other racial and ethnic groups (Rodgers et al., 2018). One proposed explanation for this pattern of results is that Black culture has a greater acceptance of larger body sizes, which might buffer against the development of disordered eating behaviors (Cashel et al., 2003). However, this does not render this population immune to pervasive Westernized body ideals; indeed, significant research supports the influence of sociocultural factors such as acculturative stress (Kalantzis et al., 2023), and thin- (Burke et al., 2021a), muscular- (Frederick et al., 2022b), and hourglass-ideal internalization (Hernández et al., 2021), on body dissatisfaction and disordered eating in this population.

Acculturative Stress and Disordered Eating in Black Samples

Acculturative stress has been identified as a prominent sociocultural factor that influences disordered eating behaviors in Black women (Kalantzis et al., 2023). Although acculturative stress was initially examined in samples of immigrants or refugees (Hormozi et al., 2018; Khan et al., 2018) it has also been identified in U.S.-born individuals whose racial or ethnic group differs from the white, Western ideals (Akoury et al., 2019). For example, as noted above, one difference between Black culture and Eurocentric American culture is that the former typically
places more value on larger, curvier bodies over thinner ideals (Anderson, 1991). Thus, Black women, even those born in the U.S., might experience more acculturative stress due to the vast difference between their cultural body ideals and ideals perpetuated by white Western culture (Kroon Van Diest et al., 2014). This hypothesis was evaluated in a meta-analysis which systematically reviewed the link between acculturative stress and disordered eating across 14 studies (Kalantzis et al., 2023). Of those studies, four included samples of Black men and women, and all of these supported a link between greater acculturative stress and eating disorder symptoms (Perez et al., 2002; Gordon et al., 2010; Kroon Van Diest et al., 2014; Kwan et al., 2018).

Three of the studies within this same meta-analysis (Kalantzis et al., 2023) investigated differences in the strength of the relation between acculturative stress and disordered eating in Black women and other racial and ethnic groups (Perez et al., 2002; Gordon et al., 2010; Kroon Van Diest et al., 2014). Specifically, Perez and colleagues (2002) investigated acculturative stress and disordered eating in Black, Latine and white individuals ($N= 118$, of whom 36 identified as Black). Their results indicated that Black women’s levels of acculturative stress were lower than those of Latine women, but higher than those of white women. Further, researchers found a significant association between levels of acculturative stress and disordered eating behaviors among Latine and Black women with high levels acculturative stress, not among those with low levels (Perez et al., 2002). Further, a study conducted by Gordon and colleagues (2010) built upon Perez and colleagues’ (2002) findings by examining the relations among acculturative stress, body dissatisfaction, and bulimic symptoms in Black, Latine and white college women ($N=276$; 122 identified as Black; $M_{\text{age}}=18.88$). Acculturative stress was significantly, positively associated with bulimic symptoms in Black women, but not in Latine
women. However, acculturative stress was not significantly related with body dissatisfaction in any of the racial and ethnic groups.

Finally, Kroon Van Diest and colleagues (2014) examined links among acculturative stress, body dissatisfaction, and bulimic symptoms in 247 Black ($n=85$), Asian American ($n=72$), and Latine ($n=90$) college women ($M_{\text{age}}=19$). Black women reported similar levels of both acculturative stress and bulimic symptoms to Latine women, but lower levels than Asian American women. Acculturative stress and body dissatisfaction were both significantly associated with bulimic symptoms in Black, Asian American and Latine women. Further, acculturative stress moderated the relation between body dissatisfaction and bulimic symptoms for Black women, but not for women from other racial and ethnic groups (Kroon Van Diest et al., 2014). The authors posited that perhaps this moderation was only significant for Black women because they could be experiencing unique negative effects of acculturative stress, such as familial conflict (Kroon Van Diest et al., 2014). These conflicting pressures might be unique to Black women because body image ideals from Latine and Asian cultures are similar to the U.S. thin-ideal (Altabe, 1998). For example, in a study by Hunter et al. (2017), a sample of Black women ($n=167$) reported increased familial pressures to embody an hourglass ideal. However, Black women in the U.S. also face relentless pressure to conform to the Westernized thin-ideal (Kroon Van Diest et al., 2014). As suggested by Hunter and colleagues (2017) Black women who strive for the Eurocentric thin ideal can be perceived as, “acting white,” which could increase familial conflict (i.e., acculturative stress), and encourage the use of negative coping mechanism such as bingeing.
Body Image Ideals, Body Dissatisfaction and Disordered Eating in Black Samples

The relevance of the internalization of body image ideals such as the thin-, muscular-, and hourglass-ideals has been supported in samples that include Black women (Kelch-Oliver & Ancis, 2011; Rodgers et al., 2019; Suplee, 2016; van den Berg et al., 2002) and men (Frederick et al., 2022a, b). Several studies have found that Black women endorse the lowest levels of thin-ideal internalization, compared with other racial and ethnic groups (Frederick et al., 2022a; Burke et al., 2021a). For example, Frederick and colleagues (2022a) conducted a cross-sectional study examining the prevalence and association of lean/thin and muscular-ideal internalization on appearance satisfaction in Black men (n=297) and women (n=477; N=11,620; Frederick et al., 2022a). Overall, Black women reported significantly lower rates of thin/lean-ideal internalization as compared with white, Latine and Asian American women. A similar trend was found for Black women and muscular-ideal internalization. In addition, Black women had the strongest negative associations between thin-ideal internalization and appearance satisfaction, compared with other groups of women (Frederick et al., 2022b).

Among men in this sample (Frederick et al., 2022a), Black men reported significantly lower rates of thin/lean-ideal internalization than white, Latine and Asian American men. However, Black men reported significantly more muscular-ideal internalization than white and Latine men. Black men’s level of muscular-ideal internalization was similar to that of Asian American men. Finally, these authors identified a significant relation between thin/lean- and muscular-ideal internalization and appearance satisfaction for Black men (Frederick et al., 2022b).

Another study by Burke and colleagues (2021a) examined thin-ideal internalization, body satisfaction, and dietary restraint in a sample of racial and ethnically diverse undergraduate
women (total N=1,758 of whom 212 identified as Black women). These researchers found that thin-ideal internalization was inversely related to body satisfaction in Black women. In addition, lower levels of thin-ideal internalization were indirectly associated with decreased levels of dietary restraint through body satisfaction. Further, the association between body satisfaction and dietary restraint was significantly weaker for Black women, compared with Latine women. Finally, similar to the results of Frederick and colleagues (2022a), Black women in this sample reported the lowest levels of thin-ideal internalization, and the highest levels of body satisfaction, compared with white, Latine, and Asian American women. Limitations of Burke and colleagues’ (2021a) study include the exclusive inclusion of women, and not assessing the internalization of other body image ideals (e.g., muscular or hourglass).

Compared with thin-ideal internalization, hourglass-ideal internalization has less frequently been a focus of study in Black samples (Hernández et al., 2021). It is purported that internalizing the hourglass ideal might be considered a protective factor for women who naturally have, and/or originate from a culture that accepts curvaceous bodies, such as Black women (Hughes, 2021). However, the hourglass ideal is still unrealistic for most women to attain (Hunter et al., 2021), as it comprises a specific, and rare, body shape (i.e., full bust and buttocks, thin waist and flat stomach; Hernández et al., 2021). The existing research addressing the hourglass ideal generally compares Black women to white women; results suggest that Black women endorse this ideal at higher levels, and this endorsement is positively linked to body dissatisfaction (Hunter et al., 2021; Overstreet et al., 2010). In contrast to Hunter and colleagues (2021) and Overstreet and colleagues (2010), a recent study using a community sample (total N = 912; 260 of whom identified as Black) did not find differences between Black women and other racial and ethnic groups (Asian American, Latine and white) with respect to their degree of
internalization of the hourglass ideal (Hernández et al., 2021). However, Hernández and colleagues (2021) did find a significant association between hourglass-ideal internalization and disordered eating behaviors in all groups of women they surveyed (i.e., Black, Latine, Asian American and white). Given these mixed findings, further investigation is needed to enhance understanding of the relation between hourglass-ideal internalization and disordered eating behaviors among Black women.

**Associations among Acculturative Stress, Body-Ideal Internalization, Body Dissatisfaction, and Disordered Eating in Black Samples**

As discussed in the previous sections, there is evidence to support the link between acculturative stress and disordered eating in Black men and women (Akoury et al., 2019; Kroon Van Diest et al., 2014; Kwan et al., 2018; Simmons & Limbers, 2019). Similarly, the link between thin-, muscular-, and hourglass-ideal internalization and disordered eating behaviors has also been documented in Black samples (Burke et al., 2021a; Frederick et al., 2022b; Hernández et al., 2021). However, numerous researchers have emphasized the importance of investigating how culture-specific factors influence different variables within the Tripartite Influence Model (e.g., thin-, muscular-, and hourglass-ideal internalization), and relate to the development and maintenance of disordered eating behaviors (Warren and Akoury, 2020). Consequently, a growing literature has examined the relations among acculturative stress, body image ideal internalization, and eating/body image concerns in diverse racial and ethnic samples (e.g., body dissatisfaction and disordered eating behaviors; Gordon et al., 2010; Menon & Harter, 2012; Warren & Rios, 2012). However, relatively few have included Black samples. In particular, although there are some data supporting the direct associations between acculturative stress and disordered eating behaviors, as well as acculturative stress and thin-ideal internalization in Black
women (Gordon et al., 2010), there remains a need for further research evaluating the associations among acculturative stress, body-ideal internalization, body dissatisfaction and disordered eating behaviors in Black men and women.

**Disordered Eating and Related Constructs in Asian American Samples**

The literature on disordered eating behaviors in Asian American samples has also yielded mixed results. Some data indicate that Asian American individuals report the highest levels of disordered eating, compared with other racial and ethnic groups (Uri et al., 2021; Rodgers et al., 2018). Other investigations suggest this population endorses levels of eating disorder symptoms similar to (Franko et al., 2007), or even lower (Cachelin & Regan, 2006; Tsai & Gray, 2000) than those of white individuals. Both Asian and Asian American cultures, like white Western culture, promote the thin-ideal for women (Akoury et al., 2019). However, differences in disordered eating behaviors between and within Asian, Asian American, and white samples might be attributable to the influence of sociocultural factors such as acculturative stress (Burke et al., 2021a; Frederick et al., 2022b; Uri et al., 2021)

**Acculturative Stress and Disordered Eating in Asian American Samples**

There is literature to support the link between acculturative stress and disordered eating behaviors in Asian Americans (Akoury et al., 2019; Kroon Van Diest et al., 2014; Kwan et al., 2018; Simmons & Limbers, 2019). Although most of the acculturative stress literature focuses on first generation immigrants or refugees (Hormozi et al., 2018; Khan et al., 2018), Akoury and colleagues (2019) found no significant generational differences in the relation between acculturative stress and disordered eating. This result supports the idea that acculturative stress can also occur in individuals who were born in the U.S. but are members of minoritized racial or ethnic groups (Andreouli, 2013; Akoury et al., 2019). Further, prior investigations have indicated
that, compared with Black and Latine undergraduate women, Asian American undergraduate women reported the highest levels of acculturative stress and bulimic behaviors (Kroon Van Diest et al., 2014). In addition, two other studies support the link between acculturative stress and disordered eating in Asian American men (Simmons & Limbers, 2019; Kwan et al., 2018).

**Body Image Ideals, Body Dissatisfaction, and Disordered Eating in Asian American Samples**

Thin- (Akoury et al., 2019) and muscular-ideal internalization are associated with disordered eating behaviors in Asian and Asian American samples (Burke et al., 2021a; Frederick et al., 2022b). Further, existing literature indicates that Asian American women endorse levels of thin-ideal internalization similar to those of Latine and white women, and higher than those of Black women (Burke et al., 2021a; Frederick et al., 2022b). For example, in a study that included college-aged women from different racial and ethnic groups (Total N=1,758; 176 whom identified as Asian) Asian American women reported significantly greater thin-ideal internalization, compared with Black women. Asian American women’s levels of thin-ideal internalization were similar to those of white and Latine women (Burke et al., 2021a).

Additionally, Asian American women reported levels of body satisfaction similar to those of white women, and lower than those of Latine and Black women. Finally, Asian American women endorsed lower levels of dietary restraint compared to white and Latine women. These results were surprising, as other research has indicated that Asian American women endorsed higher levels of dietary restraint than white women (Rodgers et al., 2018). Perhaps one reason for these conflicting findings is that Asian American women in Burke and colleagues’ (2021a) sample also reported the lowest BMI, and thus, might have perceived less need to manage their weight through restraint. Finally, thin-ideal internalization and body satisfaction were associated with dietary restraint in all racial and ethnic groups assessed.
Similarly, Frederick and colleagues (2022a) found that white and Asian American women endorsed similar levels of thin-, and muscular-ideal internalization and appearance satisfaction ($N=11,620$; 344 whom identified as Asian American women; Frederick et al., 2022a). Further, Asian American women reported significantly higher thin-ideal internalization than Black women; however, Asian American women’s thin-ideal internalization was similar to that of Latine women. The same study indicated that Asian American women’s internalization of the muscular ideal was higher than that of Black women, yet lower than Latine women. Finally, the relation between thin-ideal internalization and appearance satisfaction was stronger for Asian American women, compared with white and Latine women (Frederick et al., 2022b).

Among men in this sample ($N=11,620$; 370 whom identified as Asian), levels of thin/lean-ideal internalization were comparable across Latine, and white men. However, Asian American men reported significantly higher rates of thin/lean-ideal internalization compared with Black men. Further, Asian American, Black and Latine men endorsed similar levels of muscular-ideal internalization. Asian men reported more muscular-ideal internalization than white men. Finally, there was a significant relation between thin/lean- and muscular-ideal internalization and appearance satisfaction for Asian American men (Frederick et al., 2022b).

Finally, relatively few studies have investigated internalization of the hourglass ideal and disordered eating within Asian American samples. Although it is more common for Asian American women to endorse a thin-ideal (Akoury et al., 2019), there are reports of Asian American women wanting a curvier body (Tsong & Smart, 2015; Hernández et al., 2021). For example, in a study conducted by Hernández and colleagues (2021), Asian American women’s (total $N = 912$; $n = 272$ whom identified as Asian) internalization of the hourglass-ideal was similar to that of Latine, Black and white women. Further, these authors found a significant
relation between hourglass-ideal internalization and disordered eating behaviors across all groups of women. These findings suggest that internalization of the hourglass ideal in Asian American women could be associated with increased risk for disordered eating.

**Associations among Acculturative Stress, Body-Ideal Internalization, Body Dissatisfaction, and Disordered Eating in Asian American Samples**

As noted in previous sections, there is evidence to support the link between acculturative stress and disordered eating behaviors in Asian American samples (Akoury et al., 2019; Kroon Van Diest et al., 2014; Kwan et al., 2018; Simmons & Limbers, 2019). Similarly, the link between thin-, muscular-, and hourglass-ideal internalization and disordered eating behaviors has also been reported in Asian American samples (Burke et al., 2021a; Frederick et al., 2022b; Hernández et al., 2021). However, numerous researchers have emphasized the importance of investigating how culture-specific factors influence different variables within the Tripartite Influence Model (e.g., thin-, hourglass- ideal internalization) in the development and maintenance of disordered eating behaviors (Warren & Akoury, 2020). Consequently, a growing literature has emerged examining the relation among acculturative stress, body image ideal internalization, and eating/body image concerns in diverse racial and ethnic samples (i.e., body dissatisfaction and disordered eating behaviors; Gordon et al., 2010; Menon & Harter, 2012; Warren & Rios, 2012; Liao et al., 2020).

Finally, one study has examined these relations in Asian American men. Specifically, Liao and colleagues (2020) conducted a qualitative investigation of 11 Asian American men. Participants in this study reported that acculturative stress and muscular-ideal internalization contributed to their body dissatisfaction (Liao et al., 2020). Future research, including quantitative research, is needed to expand the current literature examining the associations of
acculturative stress, thin-, muscular-, and hourglass ideal internalization, body dissatisfaction and disordered eating behaviors in Asian American men and women.

**Disordered Eating and Related Constructs in Latine Samples**

Previous research has indicated that rates of binge eating disorder are higher among Latine individuals, compared with other racial and ethnic groups (Perez et al., 2016; Rodgers et al., 2018). However, results regarding the prevalence of other disordered eating behaviors among Latine individuals, especially compared with other groups, have been mixed. For example, Franko and colleagues (2007) indicated that Latine individuals endorsed similar levels of disordered eating behaviors, compared with other racial and ethnic groups. Other research suggests that Latine individuals report significantly lower levels of dieting and compulsive exercise (Lee-Winn et al., 2016) and higher levels of dietary restraint (Burke et al., 2021a) compared with members of other ethnic groups. It is possible that these contrasting findings might relate to sociocultural factors such as acculturative stress (Cachelin et al., 2014; Perez et al., 2016), and factors within the Tripartite Influence Model such as thin-, muscular-, and hourglass-ideal internalization and body dissatisfaction (Hernández et al., 2021; Rodgers et al., 2018).

**Acculturative Stress and Disordered Eating in Latine Samples**

Several studies have explored the link between acculturative stress and disordered eating behaviors in Latine women (Kalantzis et al., 2023). One hypothesized contributor to acculturative stress in this population is the conflict between body image ideals from their heritage culture and those of the current mainstream culture. Specifically, many Latine cultures value larger, curvier bodies; moreover, Latine culture places less emphasis on the appearance of a women’s bodies, and greater emphasis on their connection to the community (Quiñones et al.,...
2022). This cultural perspective contrasts with the Westernized body image ideals that prioritize thinness and place a high value on physical appearance (Warren & Akoury, 2020). As a result, these cultural differences might contribute to elevated levels of body dissatisfaction among Latine women. Further, a recent meta-analysis examined the relation between acculturative stress and disordered eating. Of the 14 eligible studies, eight included Latine individuals; only four included Latine men (Kalantzis et al., 2023). However, only three of these 14 studies compared the relation between acculturative stress and disordered eating behaviors across samples of Latine individuals and individuals from other racial and ethnic backgrounds (Perez et al., 2002; Gordon et al., 2010; Kroon Van Diest et al., 2014).

The first of these three studies, conducted by Perez and colleagues (2002), investigated acculturative stress and disordered eating in Latine (n=22), Black (n=36) and white individuals (n=60; N=118). Their results indicated that Latine women’s levels of acculturative stress were higher than those of both Black and white women. Additionally, when researchers categorized acculturative stress into low or high levels, results indicated that high levels of acculturative stress moderated the relation between body dissatisfaction and bulimic symptoms for Black and Latine women, but not white women.

Next, Gordon and colleagues (2010) examined the associations among acculturative stress, body dissatisfaction, and bulimic symptoms in a sample of 276 Latine (n=75), Black (n=122), and white (n=79) undergraduate women; M_age=18.88. In contrast to the authors’ hypotheses, acculturative stress was not significantly associated with bulimic symptoms in Latine women, although this link was significant among Black women. Further, acculturative stress was not related to body dissatisfaction in any of the different racial and ethnic groups of women. In contrast, Kroon Van Diest, and colleagues (2014) found that acculturative stress and...
Body dissatisfaction were significantly associated with bulimic behaviors in groups of Latine
(n=90), Black (n=85), and Asian American (n=71), undergraduate women (Total N=247;
$M_{\text{age}}=19$). Further, Latine women reported levels of acculturative stress similar to those of Black
women, but lower than those of Asian American women. However, the difference in results
could be attributed to the smaller sample size of Latine women in Gordon and colleague’s (2010)
study, potentially limiting the ability to detect significant associations within this subgroup.
Given the mixed results across studies, additional research is needed to further understand the
relations among acculturative stress, body dissatisfaction, and disordered eating behaviors among
Latine women.

**Body Image Ideals, Body Dissatisfaction, and Disordered Eating in Latine Samples**

Previous research has supported the relevance of factors in the Tripartite Influence Model
including thin, -muscular-, and hourglass-ideal internalization, to disordered eating behaviors in
Latine men and women (Hernández et al., 2021; Frederick et al., 2022b; Burke et al., 2021a;
Rodgers et al., 2018). A recent study examined the relation between lean/ thin-and muscular-
ideal internalization and appearance satisfaction in Latine men ($n=264$) and women ($n=204$;
$N=11,620$; Frederick et al., 2022b). Researchers reported that Latine women endorsed
significantly higher levels of thin-ideal internalization than Black women; however, Latine
women’s thin-ideal internalization was similar to that of white and Asian American women. This
same study indicated that Latine women’s endorsement of muscular-ideal internalization was
higher than that of women in all other groups surveyed. Additionally, the relation between thin-
ideal internalization and appearance satisfaction among Latine women was comparable to that in
white and Asian American women (Frederick et al., 2022 a, b).
This same study also indicated that Latine men reported significantly higher levels of thin/lean-ideal internalization than Black men; however, Latine men’s thin-ideal internalization was similar to that of Asian American and white men (Frederick et al., 2022a). Further, Latine men reported more muscular-ideal internalization than white men, but less than Black men (Frederick et al., 2022a). Latine men’s muscular-ideal internalization was similar to that of Asian American men. Finally, there was a significant relation between thin/lean- and muscular-ideal internalization and appearance satisfaction for Latine men (Frederick et al., 2022b).

Next, Burke and colleagues (2021a) assessed the influence of thin-ideal internalization and body satisfaction on dietary restraint in a sample of diverse undergraduate women (total $N=1,758$; 203 identified as Latine). Latine women endorsed higher levels of thin-ideal internalization than Black women, similar levels as Asian American women, and lower levels than white women. Further, Latine women endorsed more body satisfaction than Asian American women, similar levels as white women, and less than Black women. Moreover, Latine women’s levels of dietary restraint were higher than those of Asian American and Black women, but similar to those of white women. Finally, Latine women reported the weakest link between thin-ideal internalization and body satisfaction compared to Asian American, Black, and white women. In contrast, the negative association between body satisfaction and dietary restraint was strongest for Latine women as compared to Black and Asian American and women.

Finally, there is emerging evidence that Latine women internalize the hourglass ideal (Viladrich et al., 2009; Hernández et al., 2021), which is associated with both body dissatisfaction and disordered eating (Hernández et al., 2021). Specifically, Viladrich and colleagues (2009) conducted a mixed methods study examining the ideal body image among Latine women ($n=44$). Quantitative and qualitative results of the study reported that Latine
women endorsed relatively high levels of drive for thinness, however an additional theme emerged in the qualitative interviews. Interviewees reported a preference for thin, yet curvier bodies (Viladrich et al., 2009), which is similar to the hourglass-ideal. In a related study, Hernández and colleagues (2021) examined the internalization of the hourglass-ideal and disordered eating in a sample of white \( (n = 106) \), Black \( (n = 260) \), Latine \( (n = 238) \), and Asian American \( (n = 272) \), women \( (M_{age} = 33) \). There were no significant differences among Latine women and other racial and ethnic groups with respect to their degree of internalization of the hourglass ideal (Hernández et al., 2021). However, these authors found a significant association between hourglass-ideal internalization and disordered eating behaviors among Latine women, as well as the other groups of women. These findings suggest that the hourglass ideal is an important construct to consider when understanding disordered eating across racial and ethnic groups, including Latine women.

**Associations among Acculturative Stress, Body-Ideal Internalization, Body Dissatisfaction, and Disordered Eating in Latine Samples**

As reviewed previously, there is evidence to support the link between acculturative stress and disordered eating behaviors in Latine samples (Perez et al., 2002; Kroon Van Diest et al., 2014). Additionally, the internalization of thin-, muscular-, and hourglass-ideals is associated with disordered eating behaviors in various Latine samples (Burke et al., 2021a; Frederick et al., 2022b; Hernández et al., 2021). However, numerous researchers have emphasized the importance of investigating how culture-specific factors influence variables within the Tripartite Influence Model (e.g., thin-, hourglass- ideal internalization), and, ultimately, are associated with the development and maintenance of disordered eating behaviors (Warren & Akoury, 2020). Consequently, a growing literature has examined the relations among acculturative stress, body-
image ideal internalization, and eating/body image concerns (i.e., body dissatisfaction and disordered eating behaviors; Menon & Harter, 2012; Warren & Rios, 2012).

A study conducted by Menon and Harter (2012) examined associations among acculturative stress, thin-ideal internalization, and body image disturbances (i.e., body esteem and body dissatisfaction) in a sample of 399 undergraduate Latine men and women ($M_{age}=20.85$). These authors reported that thin-ideal internalization mediated the association between acculturative stress and body image disturbances. Next, Warren and Rios (2012) examined the associations among acculturative stress, muscular-ideal internalization, and muscular dissatisfaction in a sample of undergraduate Latine men ($N=93$). Their results indicated that this link was mediated by muscular-ideal internalization. The current study expands the current literature by examining links among acculturative stress, body image-ideal internalization, and disordered eating in Latine samples.

**Limitations of Prior Studies**

Sociocultural theory posits that individuals with minoritized racial and ethnic identities experience acculturative stress due to pressure to conform to multiple, and at times, conflicting, beauty ideals such as the thin- (Warren & Akoury, 2020), muscular- (Kwan et al., 2018), and hourglass- body image. Specifically, internalization of these body image ideals can mediate the associations among acculturative stress, body dissatisfaction (Quiñones et al., 2022), and disordered eating behaviors (Warren & Akoury, 2020). Although the aforementioned sections have provided support for the links among acculturative stress, thin-and muscular-ideal internalization, body dissatisfaction and disordered eating behaviors (Warren & Akoury, 2020), a closer look into the literature suggests that a few gaps remain.
First, minimal research has examined the relations among acculturative stress, body-image ideal internalization, body dissatisfaction and disordered eating behaviors across various racial and ethnic groups of men and women. The existing literature predominantly focuses on Latine men and women (Menon & Harter, 2012; Warren & Rios, 2012), with limited research on Asian American men (Liao et al., 2020; Kwan et al., 2018), Multiracial (Burke et al., 2021b; Ivezaj et al., 2010) and Black individuals (Gordon et al., 2010). Moreover, within the current literature, researchers have primarily focused on the thin-ideal, with far fewer studies investigating the muscular and hourglass-ideals. Thus, there is a gap in the literature investigating the possible role of muscular and hourglass-ideal internalization as mediators of the relations among acculturative stress, body dissatisfaction and disordered eating behaviors among samples of racially and ethnically diverse men and women.

Additionally, many of these studies only examined the influence of acculturative stress on one specific disordered eating or related outcome, such as bulimic symptoms (Gordon et al., 2010; Kwan et al., 2018; Perez et al., 2002), body esteem (Menon & Harter, 2012) or body dissatisfaction (Liao et al., 2020; Menon & Harter, 2012; Warren & Rio, 2012) as the primary outcome variable, rather than on a broader range of disordered eating behaviors. The current study addresses this gap by examining the relation between acculturative stress and a broader range of disordered eating behaviors, including dietary restraint, excessive exercise and binge eating behaviors.

Finally, the previously reviewed literature utilized samples with limited external validity, particularly for adults within minoritized racial and ethnic communities. For example, many samples consisted of college age women enrolled in predominately white institutions (Burke et al., 2021a; Franko et al., 2007; Frederick et al., 2022a, b; Gordon et al., 2010; Kroon Van Diest
et al., 2014; Kwan et al., 2018; Perez et al., 2002), and some authors grouped individuals with
minoritized identities together as one large sample (Simmons & Limbers, 2019; Kwan et al.,
2018). Finally, many studies used white women as the reference group for their studies (Burke et
al., 2021a; Franko et al., 2007; Perez et al., 2002). Grouping samples of people of color together
can impede identification of important between-group differences, perpetuate the assumption of
homogeneity within racial and ethnic populations, and reinforce the idea of whiteness as the
“standard” to which other groups are compared (Halbeisen et al., 2022). The current study
evaluates the relation among acculturative stress, body image ideal internalization, body
dissatisfaction and disordered eating behaviors in a non-university sample. By examining these
relations within distinct subsamples of racially and ethnically diverse adults, the study aims to
enhance the external validity of the existing literature.

**Disordered Eating and Related Constructs in Multiracial Samples**

Data from the most recent U.S. census suggest there will be a 200% increase of
individuals identifying as Multiracial (i.e., individuals with two or more ethnic-racial
backgrounds) in the U.S. between now and 2060 (Vespa et al., 2018). However, previous
research has not adequately examined disordered eating symptoms in this group (Burke et al.,
2021b). Often, Multiracial individuals are categorized into a racial “other” group, or excluded
from analyses entirely (Burke et al., 2021b). It is particularly important to examine disordered
eating symptoms within this group because it is hypothesized that individuals identifying as
Multiracial may face challenges in receiving acceptance from their cultures (Katzman et al.,
2004; Kelch-Oliver & Ancis, 2007). As a result, Multiracial individuals might engage in
disordered eating behaviors in an effort to achieve the ideal body image of at least one of the
cultures with which they identify (Godoy, 2012; Katzman et al., 2004; Kelch-Oliver & Ancis,
2007; Ricciardelli et al., 2007). The few studies that have examined disordered eating symptoms in Multiracial individuals were conducted outside of the U.S. (Katzman et al., 2004; Thomas et al., 2002), limiting understanding of these behaviors among Multiracial individuals living in the U.S.

Two studies which have specifically examined disordered eating behaviors of Multiracial individuals (and not defined them as an “extra” or “other” group), were conducted by Ivezaj and colleagues (2010) and Burke and colleagues (2021b). Ivezaj and colleagues (2010) sampled undergraduate men and women who identified as Black, white and Multiracial from a midwestern university (N=959; 65 whom identified as Multiracial) and examined the relations among binge eating, weight status, and mental health. Results indicated that Multiracial and white women who did not have overweight, endorsed significantly higher levels of appearance evaluation and shape concerns than Black women and white men who also did not have overweight. There were no significant differences in body dissatisfaction between Multiracial and white women. These findings suggest that, with respect to the prevalence of disordered eating and body image concerns, Multiracial women might be similar to white women. However, it should be noted that only a small percentage of participants in this study identified as Multiracial (6.1%), and the vast majority (72.7%) of Multiracial individuals identified as women. Further, researchers excluded Multiracial men (n=15) and Black men (n=36) from analyses due to small sample sizes. A larger, more gender inclusive sample is needed to further examine disordered eating behaviors in this population.

A more recent study conducted by Burke and colleagues (2021b) investigated disordered eating pathology in a sample of 145,379 undergraduate students with monoracial (n=133,946) and Multiracial identities (n=11,433). Authors noted that Multiracial samples are extremely
heterogenous, and thus should not be grouped together simply because they identify with two or more racial or ethnic identities (Burke et al., 2021b). Instead, authors and others recommend researchers use terms such as, “Majority-Minority Multiracial” to describe individuals who identify as white alongside another minoritized identity (e.g., White, and Black; Atkin et al., 2022; Burke et al., 2021b). Similarly, the term, “Multiple-Minority Multiracial,” can be used to describe individuals with two minoritized identities (e.g., Black, and Asian; Atkin et al., 2022). Results of their study indicated that Multiple-Minority Multiracial participants (e.g., Black and Latine, Black and Asian) reported higher rates of disordered eating than Majority-Minority Multiracial individuals (e.g., Asian, and white) or monoracial identities (e.g., only Latine; Burke et al., 2021b). However, these researchers did not investigate factors that might contribute to these disparities in disordered eating rates across groups. Burke and colleagues’ (2021b) suggested that Multiple-Minority Multiracial individuals’ appearance might deviate from the white ideal, thus they might be subjected to increased appearance pressures and appearance-based discrimination, which could, in turn, influence their body satisfaction and eating habits.

Gaps in the Literature for Multiracial Samples

In sum, although the number of Multiracial individuals is growing exponentially in the United States (Vespa et al., 2018), little research has investigated the etiology of disordered eating behaviors in this specific group. Previous studies have primarily addressed the prevalence of these behaviors and have not extended this work to evaluate their potential correlates, such as acculturative stress (Kalantsiz et al., 2023) thin-, muscular-, hourglass-ideal internalization, or body dissatisfaction (Burke et al., 2021b; Rakhkovskaya & Warren, 2016). The current study will examine these mechanisms of disordered eating behaviors in “Multiple-Minority” and “Majority-Minority” Multiracial women. Notably, for the sake of clarity for the current study
Disordered Eating Behaviors in LGBT People of Color

Grounded in Black feminist and critical race theory (Beale, 1970; Crenshaw, 1993) intersectionality is a conceptual framework that recognizes the interconnectedness of individual identities (e.g., gender, sexual orientation, race). It highlights that identities do not exist in isolation, rather they intersect within larger societal structures which can impact the risk of discrimination and disparities that an individual may face. Rather than considering that the presence of multiple marginalized identities is an increased risk factor, intersectionality highlights how the interplay of these identities within systems of oppression can increase stress and contribute to psychopathology. For example, individuals with multiple minoritized identities, such as LGBT (i.e., lesbian, gay, bisexual, transgender) people of color, can face heightened risk of microaggressions and discrimination based on their LGBT identity and their race and ethnicity (Cyrus, 2017). Like other marginalized racial and ethnic groups, it is possible that LGBT people of color may experience acculturative stress and feel pressure to conform their beliefs, attitudes, and behaviors to fit the dominant culture. In addition to stress from racial/ethnic acculturation, there may be an additional burden to conform to cisgender heteronormative standards, further impacting this population. Although research indicates that experiences of acculturative stress are associated with increased disordered eating behaviors in racial and ethnic groups (Warren & Akoury, 2020), there is a paucity of research exploring how acculturative stress may impact disordered eating behaviors among individuals with intersecting marginalized identities, such as LGBT people of color.
As previously noted, disordered eating behaviors have been documented across samples of cisgender heterosexual individuals from diverse racial and ethnic backgrounds (Rodgers et al., 2018; Burke et al., 2021a; Frederick et al., 2022a). However, most of these studies have not investigated how LGBT status can influence disordered eating behaviors. LGBT people are an understudied population in disordered eating literature (Calzo et al., 2018; Mensinger et al., 2020; Nagata et al., 2020b; Rodgers et al., 2018). This relative lack of research on disordered eating behaviors and their correlates in LGBT individuals is problematic because, compared with cisgender heterosexual individuals, LGBT individuals are twice as likely to have an eating disorder diagnosis (Kamody et al., 2020).

Despite these higher risks, available studies have primarily focused on either differences in disordered eating behaviors among cisgender heterosexual individuals with diverse racial and ethnic statuses (Rodgers et al., 2018; Beccia et al. 2019; McEntee et al., 2021), or disordered eating in samples of predominantly white LGBT individuals (Jones et al., 2019; Calzo et al., 2018). Nonetheless, a growing body of literature has highlighted the importance of investigating disordered eating behaviors among individuals with multiple marginalized identities (Austin et al., 2013; Cyrus, 2017; Parker & Harriger, 2020; Burke et al., 2021a; Gonzales & Blashill, 2021; Roberts et al., 2017). These key studies are reviewed in the following paragraphs.

First, Feldman and Meyer (2007) examined differences in lifetime prevalence of threshold and subthreshold eating disorder diagnoses in their sample of 524 participants, which included 388 lesbian, gay and bisexual (LGB) Black (n=131), white (n=134), and Latine (n=131) men and women and 128 heterosexual white men and women; M_{age} = 32. As hypothesized, gay and bisexual men reported a significantly higher lifetime prevalence of subthreshold bulimia, anorexia and binge eating disorder, compared with heterosexual men. On the other hand, there
were no significant differences in subthreshold disordered eating behaviors among heterosexual, lesbian, and gay women. Further, there were no significant differences among white, Latine, or Black LGB participants (Feldman & Meyer, 2007). This observed lack of group differences among heterosexual, lesbian and gay women is consistent with results of an earlier study that also found no differences in disordered eating and body esteem among lesbian, gay and heterosexual women (Share & Mintz, 2002). In contrast, results of other studies have indicated that lesbian women report fewer disordered eating behaviors compared with heterosexual women (Lakkis et al., 1999; Schneider et al., 1995; Siever, 1994; Strong et al., 2000), while one longitudinal study indicated that lesbian women manifested higher levels of bulimic symptoms, compared with heterosexual women (Wichstrom, 2006). A limitation of Feldman and Meyer’s (2007) study is that it did not evaluate factors that might have accounted for the differences (or lack thereof) among groups (such as acculturative stress).

In another study, Austin and colleagues (2013) examined the intersection of gender, ethnicity and sexual orientation, and their links to purging behaviors, diet pill usage and obesity levels in a sample of 24,591 high school girls (n=12,132) and boys (n=12,459) ages 13-18 years (M_age=15.9). Participants identified as Asian American (n=3,071), Black (n=6,124), Latine (n=4,442), and white (n= 8,794). Consistent with prior literature (Austin et al., 2004; Wichstrom, 2006), Austin and colleagues (2013) identified a large disparity in disordered eating symptomatology between LGB youth of color and their white heterosexual peers. Specifically sexual minority boys and girls from diverse racial and ethnic groups reported a higher prevalence of weight control behaviors (i.e., purging and diet pills) compared with their white heterosexual youth (Austin et al., 2013). However, interactions between sexual orientation and racial and ethnic group membership did not account for significant variance in disordered eating behaviors
in either girls or boys. One limitation of this study mentioned by its authors was that contextual factors (e.g., acculturative stress, BMI, socioeconomic status) that might explain differences (or lack thereof) in purging behaviors among groups in this sample were not assessed (Austin et al., 2013).

Finally, Gonzales and Blashill (2021) examined drive for muscularity and appearance and performance enhancement drug misuse (APED) in a sample of 962 lesbian, gay, bisexual, and asexual individuals [Black (n=236), white (n=241), Latine (n=234), and Asian American (n=249) men (n=479) and women (n=483) ages 18-30; $M_{age} = 23.68$]. These researchers reported that sexual minority women reported more eating disorder symptoms, compared with sexual minority men. Additionally, sexual minority men reported significantly greater drive for muscularity and APED misuse compared to sexual minority women. Finally, similar to Austin and colleagues (2013), the interaction of sexual orientation and racial and ethnic group membership was unrelated to disordered eating.

Results from the previously mentioned studies support the idea that LGB people of color are at increased risk of experiencing disordered eating behaviors, compared with white heterosexual individuals (Feldman & Meyer, 2007; Austin et al., 2013; Gonzalez & Blashill, 2021). It is important to highlight a few limitations of these studies. First, it is difficult to compare results due to sample differences; thus, more research is needed to support these claims. Specifically, Feldman and Meyer (2007) did not include Asian American men and women in their sample, unlike the other two studies. On the other hand, Gonzales, and Blashill (2021) and Austin and colleagues (2013) included both men and women from similar racial and ethnic backgrounds. However, Gonzales and Blashill’s (2021) sample consisted of adults ($M_{age}=23.68$), while Austin and colleagues’ (2013) sampled adolescents ($M_{age}=15.9$), thus making direct
comparisons challenging. Second, all three studies exclusively examined cisgender monoracial individuals, and excluded transgender and Multiracial individuals. This limitation is noteworthy, as transgender individuals endorse higher levels of disordered eating symptoms than their cisgender peers (Parker & Harriger, 2020). Similarly, Multiracial individuals report higher levels of disordered eating compared with monoracial individuals (Burke et al., 2021b). Thus, it is important for future research to include transgender and Multiracial individuals. Furthermore, the aforementioned studies did not examine differences between LGB people of color and heterosexual people of color. It remains unclear whether LGB people of color are more likely to engage in disordered eating behaviors, compared with heterosexual people of color. Additional research is needed addressing contextual factors that could further explain the associations between multiple marginalized identities and disordered eating behaviors. Finally, none of these studies address acculturative stress, a variable which could impact disordered eating behaviors in these samples.

**Disordered Eating and Related Constructs in LGBT People of Color**

Acculturative stress, thin-, muscular- and hourglass-ideal internalization, and body dissatisfaction have been identified as contributors to disordered eating among racial and ethnically diverse individuals (Rodgers et al., 2018; Hernández et al., 2021). Additionally, thin- and muscular-ideal internalization, as well as body dissatisfaction, are associated with an increased risk of disordered eating among LGBT individuals (Parker & Harriger, 2020). Notably, there are group differences in levels of thin- and muscular-ideal internalization between LGB men and women and heterosexual men and women. For example, a systematic review by Meneguzzo and colleagues (2017), indicated that lesbian, gay and bisexual women endorsed lower levels of thin-ideal internalization and body dissatisfaction compared with heterosexual
women. However, LGB women often report higher levels of muscular-ideal internalization (Yean et al., 2013; Frederick et al., 2022a). In contrast, gay and bisexual men reported higher levels of thin-ideal internalization and lower levels of muscular-ideal internalization compared with heterosexual men (Frederick et al., 2022a). Further, research identified that binary transgender women report higher levels of thin-ideal internalization (Álgars et al., 20120; Brewster et al, 2019) and binary transgender men report increased levels of muscular ideal internalization (Amodeo et al., 2020; Vocks et al., 2009).

However, there is limited research on the association of acculturative stress, thin-, muscular- and hourglass-ideal internalization, body dissatisfaction, and disordered eating behaviors in LGBT people of color. Nevertheless, it is reasonable to hypothesize that these factors might also impact this group. Moreover, researchers have postulated that individuals with multiple marginalized identities, such as LGBT people of color, could experience heightened acculturative stress, body dissatisfaction and disordered eating behaviors due to the compounded effects of discrimination, stigma and cultural expectations associated with their multiple marginalized identities (Burke et al., 2021b; Halheisen et al., 2022). Thus, the current study aims to address this gap in the literature by examining the links among acculturative stress, thin-, muscular- and hourglass-ideal internalization, body dissatisfaction, and disordered eating behaviors in LGBT people of color.

**Summary and Purpose of Study**

To address the aforementioned gaps in the literature, this study will examine the role of thin-, muscular-, and hourglass-ideal internalization and body dissatisfaction as mediators of the relation between acculturative stress and disordered eating behaviors in Black, Latine, Asian, Multiracial men and women and LGBT men and women of color. Specific hypotheses are
outlined below (at the end of the Methods section), but, broadly, it is hypothesized that, among cisgender and transgender women in these groups, the relation between acculturative stress and disordered eating behaviors will be mediated by one or more of the three body image ideals (i.e., thin-, muscular-, and hourglass-ideal) and body dissatisfaction. Among cisgender and transgender men, this relation will be mediated by either thin- or muscular-ideal internalization and body dissatisfaction.

Methods

Participants and Procedures

These data are from the Co-Influence of Stress, Mental Health, and Personality with Health Behaviors among Ethnic Minority Adults study. This investigation was conducted at Arizona State University, for the purpose of examining common predictors and mediators of unhealthy eating behaviors in ethnic minority individuals. The study was approved by the university’s IRB prior to collecting data (IRB # HRP-503a). Participants were recruited online, across the U.S., through the Qualtrics research platform and panel team, as well as via social media platforms for a study assessing racial and ethnic differences in health, body image and eating behaviors. Eligibility requirements included being 18 years or older, and currently living in the U.S.

Following completion of consent forms, participants completed an online 20-minute self-report survey that systematically randomized items to prevent response bias. Three validation items were included in the survey to ensure accuracy and reliability of the data. Examples included “What is the last digit of your cell phone number?” and “Have you ever had a heart attack and died while watching TV?” To prevent participant duplication, researchers utilized digital fingerprinting technology and IP addresses. After completing the survey, participants had
the opportunity to choose an item valued at $5 as compensation for their time. Qualtrics was responsible for cleaning the data regarding eligibility and validation items. Consequently, it is unclear how many participants were excluded due to residency outside of the U.S. or incorrect answers to validation questions.

The total sample (N=1,490) consisted of Black ($M_{age} = 44.92; SD =15.05$), Asian American ($M_{age} = 35.01; SD =10.13$), Latine ($M_{age} = 36.28; SD =13.16$) and Multiracial ($M_{age} = 40.59; SD =15.20$) cisgender heterosexual individuals. Specifically, the sample included 387 Black women, 121 Black men, 212 Asian American women, 111 Asian American men, 235 Latine women, 90 Latine men, 119 Multiracial women ($n=40$ Multiple Racial-Minority; $n=60$ Majority-Minority) and 40 Multiracial men ($n=12$ Multiple Racial-Minority; $n= 20$ Majority-Minority). Twenty-six participants solely identified as Multiracial; thus, it is unclear if they identify with Multiple- or Majority-Minority status. In addition, the overall sample included 126 LGBT women of color and 49 LGBT men of color ($M_{age} = 33.39; SD =11.00$). Further breakdown of the Multiracial sample is presented in Table 1 and the LGBT POC sample in Table 2.

**Measures**

**The Social, Attitudinal, Familial, and Environmental Acculturative Stress Scale-Short Form.** Acculturative stress was assessed using the 24-item SAFE scale (Mena et al., 1987). This measure assesses stress-related discriminatory experiences in marginalized groups. Items are rated on a five-point scale ranging from 1 (*Not stressful*) to 5 (*Extremely stressful*). Example items include, “It bothers me when people pressure me to assimilate,” “Many people have stereotypes about my culture or ethnic group and treat me as if they are true,” and “I have trouble understanding others when they speak.” Items were averaged to create a total
acculturative stress score. This measure yields internally consistent scores in samples of Latine men and women (Castillo et al., 2008; Kroon Van Diest, 2014; Warren & Rios, 2013) and Asian American, Black and Latine undergraduate women (Kroon Van Diest, 2014). Higher scores indicate greater acculturative stress ($\alpha = .97$).

**Thin- and Muscular-Ideal Internalization.** Thin-and muscular ideal internalization were measured using the Sociocultural Attitudes Towards Appearance Questionnaire- 4th edition (SATAQ-4; Schaefer et al., 2015). The SATAQ-4 is a 22 item self-report measure with five subscales: thin-ideal internalization, muscular-ideal internalization, appearance pressures from family, appearance pressures from friends, and appearance pressures from the media. Only the thin- and muscular subscales were used for this study. Items are rated on a scale ranging from 1 (Definitely Disagree) to 5 (Definitely Agree). Participants answered a total of 10 questions; five of which assessed the extent they wanted their body to look thin, and five which assessed the extent they wanted their body to look muscular. Items for each subscale were summed, with higher scores indicating greater thin- ($\alpha = .87$) and muscular-ideal internalization ($\alpha = .92$). Further, the thin-and muscular ideal subscales from the SATAQ-4 have demonstrated high reliability in groups of Latine, Asian American and Black men and women (Schaefer et al., 2015; Burnette et al., 2020; Burke et al., 2021a; Frederick et al., 2022a) and in samples of heterosexual, lesbian, gay, bisexual men, and women individuals (Hazzard et al., 2019; Frederick et al., 2022a).

**Hourglass-Ideal Internalization.** Hourglass-ideal internalization was measured using the Hourglass Body Shape Ideal Scale (HBSIS; Hernández et al., 2021). The HBSIS is an eight-item self-report measure with responses ranging from 1 (Definitely Disagree) to 5 (Definitely Agree). Ratings across items were averaged, with higher scores indicating increased hourglass-
ideal internalization ($\alpha = .93$). Further, the HBSIS has yielded reliable and valid score in samples of Asian American, Latine, and Black women (Hernández et al., 2021).

**Eating Disorder Examination Questionnaire.** Disordered eating was assessed using the Eating Disorder Examination Questionnaire version 6.0 (EDE-Q; Fairburn & Beglin, 1994). The EDE-Q is a reliable measure consisting of 28 items assessing the prevalence and severity of eating disorder symptoms over the last 28 days on a scale ranging from 0 (No days/Not at all) to 6 (Everyday/Markedly). Example items include, “Have you had a definite fear of losing control overeating?” and “Have you had a strong desire to lose weight?” Items were averaged to create a global disordered eating score and yielded consistent scores ($\alpha = .85$). The EDE-Q has been yielded reliable and valid scores in samples of Latine men and women and Black women (Serier et al., 2018; Kelly et al., 2012; McEntee et al., 2021), among cisgender lesbian and bisexual women (Duffy et al., 2021), and in transgender women and men (Nagata et al., 2020a, b).

**Body Parts Satisfaction Scale-Revised.** Participants identifying as a cisgender or transgender woman received the Body Parts Satisfaction Scale-Revised (BPSS-R; Petrie et al., 2002). The BPSS-R consists of 15 items assessing independent body parts (e.g., legs, stomach, arms) and overall body satisfaction. The BPSS-R is a reliable ($\alpha = .95$), self-report scale ranging from 1 (Extremely Dissatisfied) to 6 (Extremely Satisfied). Items were reverse coded with higher scores indicating increased levels of body dissatisfaction. The scale yields internally consistent and valid scores for Black, Latine, and Asian American women (Petrie, et al., 2002), and in transgender individuals (Mitchell et al., 2021).

**Body Parts Satisfaction Scale for Men.** Participants identifying as a cisgender or transgender man received the Body Parts Satisfaction Scale for Men (BPSS-M; McFarland & Petrie, 2012). The scale consists of 25 items assessing the upper body, legs, and face of men
with a focus on muscular and lean body satisfaction. Participants were asked to report their level of satisfaction on items such as, “Weight”, “Overall body build” and “Overall muscle tone/definition of body.” Items were reverse coded with higher scores indicating increased levels of body dissatisfaction. The BPSS-M is a reliable (\( \alpha = .98 \)), self-reported scale rated on a five-point scale ranging from 1 (Extremely Dissatisfied) to 6 (Extremely Satisfied). The BPSS-M yields internally consistent and valid scores for samples of Asian American, Latine and Black men (McFarland & Petrie, 2012).

**Data Analyses**

Prior to conducting data analysis, data were cleaned in SPSS (Version 28.0), and assumptions of normality were checked. Due to small sample size, Multiracial men (\( n=40 \)) were excluded from analyses. Additionally, the 26 participants who did not provide a breakdown of their Multiracial identity were excluded from the analyses. Consistent with the Tripartite Influence Model (Thompson et al., 1999), path analysis (i.e., a version of multiple regression that is utilized to examine complex relations between variables; Streiner, 2005) was used to examine the relation between acculturative stress and disordered eating behaviors via two mediating variables (i.e., body ideal internalization and body dissatisfaction). Further, the four assumptions of path analysis (i.e., linearity, no interactions among variables, only continuous endogenous variables, and independence of error) were evaluated, and all were met (Streiner, 2005). The PATHj package in Jamovi was used to analyze the relation among endogenous and exogenous variables (Gallucci, 2021). Exogenous variables are similar to an independent variable, while endogenous variables are similar to mediators and dependent variables (Streiner, 2005). The model was run with the recommended 5000 bootstrap samples drawn from the data set to calculate indirect and direct effects, as well as 95% CIs (Gallucci, 2021).
Using PATHj in Jamovi (Gallucci, 2021) acculturative stress was entered as an exogenous variable, while disordered eating, body image ideal internalization (i.e., thin-, muscular-, or hourglass-ideal) and body dissatisfaction were entered as endogenous variables. Three path analysis models were tested (see Figures 2A, 2B, and 2C) based on the specific hypothesis for each sample; hypotheses are outlined below. First, it was hypothesized that the direct c effect (describe in parentheses) would be significant. Next, it was hypothesized that the indirect effect of body image ideal internalization ($a_1*b_1$ pathway, i.e., thin-, muscular-, hourglass) would significantly mediate the relation between acculturative stress and disordered eating behaviors. Next, it is hypothesized that the indirect effect of body dissatisfaction ($a_2*b_2$ pathway) would significantly mediate the relation between acculturative stress and disordered eating behaviors. Finally, it was hypothesized that there would be a significant indirect mediation effect between acculturative stress and disordered eating behaviors via body ideal internalization and body dissatisfaction ($a_1*a_3*b_2$).

**Figure 2A.**

*Thin-Ideal Internalization and Body Dissatisfaction mediating the relation between Acculturative Stress and Disordered Eating Behaviors*
**Figure 2B.**

*Muscular-Ideal Internalization and Body Dissatisfaction mediating the relation between Acculturative Stress and Disordered Eating Behaviors*

![Diagram](image)

**Figure 2C.**

*Hourglass-Ideal Internalization and Body Dissatisfaction mediating the relation between Acculturative Stress and Disordered Eating Behaviors*

![Diagram](image)

**Aim I.** Examine the relation between acculturative stress and disordered eating behaviors via the mediating variables of thin-, muscular- and hourglass-ideal internalization and body dissatisfaction in samples of Black, Asian American and Latine men and women. It was hypothesized that:

1) The indirect path \((a1 * a3 * b2)\) from Figure 2B would be significant for Black men.

   Specifically, muscular-ideal internalization and body dissatisfaction would
significantly indirectly mediate the relation between acculturative stress and disordered eating behaviors in Black men.

2) The indirect path \((a_1 * a_3 * b_2)\) from Figures 2A and 2C would be significant for Black women. Specifically, thin- and hourglass-ideal internalization and body dissatisfaction would significantly indirectly mediate the relation between acculturative stress and disordered eating behaviors in Black women.

3) The indirect path \((a_1 * a_3 * b_2)\) from Figures 2A and 2B will be significant for Asian American men. Specifically, thin-, and muscular-ideal internalization and body dissatisfaction would significantly indirectly mediate the relation between acculturative stress and disordered eating behaviors in Asian American men.

4) The indirect path \((a_1 * a_3 * b_2)\) from Figure 2A would be significant for Asian American women. Specifically, thin-ideal internalization and body dissatisfaction would significantly indirectly mediate the relation between acculturative stress and disordered eating behaviors in Asian American women.

5) The indirect path \((a_1 * a_3 * b_2)\) from Figures 2A and 2B would be significant for Latine men. Specifically, thin-, and muscular-ideal internalization and body dissatisfaction would significantly indirectly mediate the relation between acculturative stress and disordered eating behaviors in Latine men.

6) The indirect path \((a_1 * a_3 * b_2)\) from Figures 2A, 2B, and 2C would be significant for Latine women. Specifically, thin-, muscular-, and hourglass-ideal internalization and body dissatisfaction would significantly indirectly mediate the relation between acculturative stress and disordered eating behaviors in Latine women.
Aim II. The second aim of the study was to investigate the relation between acculturative stress and disordered eating behaviors via mediating variables of thin-, muscular- and hourglass-ideal internalization and body dissatisfaction in samples of LGBT men and women of color. It was hypothesized that:

1) The indirect path \( (a1*a3*b2) \) from Figure 2A and 2B would be significant for LGBT men of color. Specifically, thin- and muscular-ideal internalization and body dissatisfaction would significantly, indirectly mediate the relation between acculturative stress and disordered eating behaviors in LGBT men of color.

2) The indirect path \( (a1*a3*b2) \) from Figure 2B would be significant for LGBT women of color. Specifically, muscular-ideal internalization and body dissatisfaction would significantly, indirectly mediate the relation between acculturative stress and disordered eating behaviors in LGBT women of color.

Aim III: Exploratory Aim. Additionally, we explored (via path analysis) the relation between acculturative stress and disordered eating behaviors via the mediating variables of thin-, muscular- and hourglass-ideal internalization and body dissatisfaction in Multiple Racial-Minority and Majority-Minority Multiracial women.
Results

Table 3
Demographics

<table>
<thead>
<tr>
<th>Age (M)</th>
<th>Cis-Het Black Women and Men (n=511)</th>
<th>Cis-Het Asian American Women and Men (n=424)</th>
<th>Cis-Het Latine Women and Men (n=324)</th>
<th>LGBT Women and Men of Color (n=173)</th>
<th>Cis-Het Multiracial Women Sample (n=100)</th>
</tr>
</thead>
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<td>44.92</td>
<td>38.59</td>
<td>36.29</td>
<td>33.30</td>
<td>39.83</td>
<td></td>
</tr>
</tbody>
</table>

**Gender**

| Cisgender Woman | 389 (76.1%) | 308 (72.6%) | 234 (72.2%) | 120 (68.6%) | 100 (100%) |
| Cisgender Man   | 122 (23.9%) | 116 (27.4%) | 90 (27.8%)  | 40 (22.9%)  | 8 (4.6%)    |
| Transgender Woman |          |            |            |            |            |
| Transgender Man |          |            |            |            |            |

**Sexuality**

| Heterosexual | 511 (100%) | 424 (100%) | 324 (100%) | 6 (3.4%) | 65 (37.1%) |
| Gay/Lesbian  |            |            |            | 77 (44%) |            |
| Bisexual     |            |            |            | 9 (5.1%) |            |
| Pansexual    |            |            |            |            |            |
| Asexual      |            |            |            |            |            |
| Questioning  |            |            |            |            |            |

**Sex Assigned at Birth**

| Assigned Female at Birth | 389 (76.1%) | 308 (72.6%) | 234 (72.2%) | 128 (73.1) | 100 (100%) |
| Assigned Male at Birth  | 122 (23.9%) | 116 (27.4%) | 90 (27.8%)  | 45 (25.7)  |            |

**BMI**

<table>
<thead>
<tr>
<th></th>
<th>19 (3.7%)</th>
<th>35 (8.3)</th>
<th>11 (3.4%)</th>
<th>14 (8%)</th>
<th>2 (2%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.5-24.9</td>
<td>143 (28%)</td>
<td>239 (56.4)</td>
<td>101 (31.2%)</td>
<td>72 (41.1%)</td>
<td>45 (45%)</td>
</tr>
<tr>
<td>25-29.9</td>
<td>139 (27.3%)</td>
<td>113 (26.7)</td>
<td>87 (26.9%)</td>
<td>31 (17.7%)</td>
<td>22 (22%)</td>
</tr>
<tr>
<td>30+</td>
<td>207 (40.5%)</td>
<td>30 (7.1)</td>
<td>118 (22.2%)</td>
<td>54 (30.9%)</td>
<td>30 (30%)</td>
</tr>
</tbody>
</table>

**Note.** Values represent mean and percentage. “Cis-Het” = cisgender heterosexual. The LGBT people of color sample included Black, Asian American, Latine, Multiracial and white individuals; the other samples included only the labeled racial or ethnic identity.
## Correlations

### Table 4

**Black Cisgender Men and Women Correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acculturative Stress</td>
<td>—</td>
<td></td>
<td>.41**</td>
<td>-.02</td>
<td>.60**</td>
</tr>
<tr>
<td>2. Thin-Ideal Internalization</td>
<td>.37**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Muscular-Ideal Internalization</td>
<td>.37**</td>
<td>.69**</td>
<td>—</td>
<td>-.26**</td>
<td>.34**</td>
</tr>
<tr>
<td>4. Body Dissatisfaction</td>
<td>.17**</td>
<td>.05</td>
<td>-.06</td>
<td>—</td>
<td>-.03</td>
</tr>
<tr>
<td>5. Disordered Eating</td>
<td>.52**</td>
<td>.47**</td>
<td>.38**</td>
<td>.22**</td>
<td>—</td>
</tr>
</tbody>
</table>

_M (Black Men) (SD)_

|           | 2.34 (1.06) | 16.57 (4.94) | 2.79 (1.05) | 3.24 (2.69) |

_M (Black Women) (SD)_

|           | 2.08 (.92)  | 13.61 (5.65) | 11.35 (5.76) | 2.28 (1.09) | 2.57 (2.24) |

*Note.* Coefficients above the diagonal represent correlations for Black men; coefficients below the diagonal represent correlations for Black women. *p < .05, **p < .01

### Table 5

**Asian American Men and Women Correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acculturative Stress</td>
<td>—</td>
<td></td>
<td>.30**</td>
<td>.18**</td>
<td>.38**</td>
</tr>
<tr>
<td>2. Thin-Ideal Internalization</td>
<td>.38**</td>
<td>—</td>
<td>.13*</td>
<td>.46**</td>
<td></td>
</tr>
<tr>
<td>3. Muscular-Ideal Internalization</td>
<td>.37**</td>
<td>.68**</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Body Dissatisfaction</td>
<td>-.19*</td>
<td>-.15</td>
<td>-.23*</td>
<td>—</td>
<td>.24**</td>
</tr>
<tr>
<td>5. Disordered Eating</td>
<td>.56**</td>
<td>.58**</td>
<td>.40**</td>
<td>-.12</td>
<td>—</td>
</tr>
</tbody>
</table>

_M (Asian American Men) (SD)_

|           | 2.21 (.94) | 15 (4.40) | 15 (4.82) | 3.14 (.922) | 2.41 (2.26) |

_M (Asian American Women) (SD)_

|           | 2.28 (.97) | 15.98 (4.62) | 3.05 (1.09) | 3.22 (2.47) |

*Note.* Coefficients above the diagonal represent correlations for Asian American men; coefficients below the diagonal represent correlations for Asian American women. *p < .05, **p < .01
Table 6

**Latine Men and Women Correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acculturative Stress</td>
<td>—</td>
<td>.42**</td>
<td>.47**</td>
<td>- .02</td>
<td>.57**</td>
<td></td>
</tr>
<tr>
<td>2. Thin-Ideal Internalization</td>
<td>.36**</td>
<td>—</td>
<td>.64**</td>
<td>- .02</td>
<td>.54**</td>
<td></td>
</tr>
<tr>
<td>3. Muscular-Ideal Internalization</td>
<td>.40**</td>
<td>.59**</td>
<td>—</td>
<td>- .18</td>
<td>.49**</td>
<td></td>
</tr>
<tr>
<td>4. Hourglass-Ideal Internalization</td>
<td>.37**</td>
<td>.42**</td>
<td>.48**</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Body Dissatisfaction</td>
<td>.04</td>
<td>.03</td>
<td>-.15*</td>
<td>-.02</td>
<td>—</td>
<td>.11</td>
</tr>
<tr>
<td>6. Disordered Eating</td>
<td>.46**</td>
<td>.52**</td>
<td>.33**</td>
<td>.34**</td>
<td>.24**</td>
<td>—</td>
</tr>
</tbody>
</table>

M (Latine Men) (SD) 2.47 (.95) 15.15 (4.66) 15.88 (4.87) 3.12 (1.11) 3.91 (2.43)
M (Latine Women) (SD) 2.22 (.99) 15.30 (5.14) 12.97 (5.69) 2.78 (1.02) 3.46 (1.29) 3.73 (2.67)

*Note.* Coefficients above the diagonal represent correlations for Latine men; coefficients below the diagonal represent correlations for Latine women. *p < .05, **p < .01
Table 7

**LGBT Men and Women of Color Correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acculturative Stress</td>
<td>—</td>
<td>.28**</td>
<td>.19</td>
<td>.53**</td>
<td></td>
</tr>
<tr>
<td>2. Thin-Ideal Internalization</td>
<td>.61**</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Muscular-Ideal Internalization</td>
<td>.52**</td>
<td>.62**</td>
<td>—</td>
<td>-.21*</td>
<td>.13</td>
</tr>
<tr>
<td>4. Body Dissatisfaction</td>
<td>-.21</td>
<td>-.37*</td>
<td>-.67**</td>
<td>—</td>
<td>.42**</td>
</tr>
<tr>
<td>5. Disordered Eating</td>
<td>.77**</td>
<td>.60**</td>
<td>.39**</td>
<td>-.13</td>
<td>—</td>
</tr>
</tbody>
</table>

| $M$ (LGBT Men of color) ($SD$)          | 2.69 (1.05) | 15.42 (4.50) | 17.36 (3.63) | 2.91 (1.03) | 4.23 (2.59) |
| $M$ (LGBT Women of color) ($SD$)        | 2.54 (.95)  | 13.52 (5.51) | 3.36 (1.18)  | 4.01 (2.83) |

*Note.* Coefficients above the diagonal represent correlations for LGBT men of color; coefficients below the diagonal represent correlations for LGBT women of color. *p < .05, **p < .01
Table 8

Multiple Racial-Minority and Majority-Minority Women Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acculturative Stress</td>
<td>—</td>
<td>.25</td>
<td>.16</td>
<td>.35**</td>
<td>.10</td>
<td>.13</td>
</tr>
<tr>
<td>2. Thin-Ideal Internalization</td>
<td>.20</td>
<td>—</td>
<td>.61**</td>
<td>.47**</td>
<td>.06</td>
<td>.28*</td>
</tr>
<tr>
<td>3. Muscular-Ideal Internalization</td>
<td>.21</td>
<td>.78**</td>
<td>—</td>
<td>.46**</td>
<td>-.28*</td>
<td>.07</td>
</tr>
<tr>
<td>4. Hourglass-Ideal Internalization</td>
<td>.33*</td>
<td>.53**</td>
<td>.68**</td>
<td>—</td>
<td>.14</td>
<td>.31*</td>
</tr>
<tr>
<td>5. Body Dissatisfaction</td>
<td>.25</td>
<td>.26</td>
<td>.12</td>
<td>.16</td>
<td>—</td>
<td>.49**</td>
</tr>
</tbody>
</table>

\[ M_{(\text{Multiple-Minority})} (SD) \]

\[
\begin{align*}
2.21 (.83) & \quad 13.36 (4.78) & \quad 12.74 (5.70) & \quad 2.58 (.95) & \quad 2.85 (.88) & \quad 2.76 (2.53) \\
2.11 (.85) & \quad 14.64 (5.45) & \quad 11.42 (5.26) & \quad 2.42 (.80) & \quad 3.33 (1.06) & \quad 2.78 (2.26)
\end{align*}
\]

Note. Coefficients above the diagonal represent correlations for Majority-Minority women; coefficients below the diagonal represent correlations for Multiple Racial-Minority women. *p < .05, **p < .01

Path Analysis Results

The following path analyses examined the potential roles of thin-, muscular- or hourglass-ideal internalization and body dissatisfaction as mediators of the relation between acculturative stress and disordered eating behaviors. Consistent with the literature, all variables were allowed to co-vary to better capture their associations and maximize model fit. Missing data across samples ranged from 0 to 12.6% and was addressed using list-wise deletion. Further, to help achieve adequate model fit, all variables were mean centered, and the zero inflated Poisson method was applied to the disordered eating variable (Atkins et al., 2013). Model fit was assessed using several indices including the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Standardized Root Mean Square Residual...
DISORDERED EATING BEHAVIORS IN DIVERSE SAMPLES

(SRMR), and chi-square ($\chi^2$) with values of CFI >0.95, RMSEA ≤0.08, and SRMR ≤0.08 as recommended cut-offs for adequate model fit (Swami & Barron, 2019) Further, Yuan and Marcoulides (2017) have suggested a nuanced set of descriptors where certain values of the RMSEA (.01 = “excellent”, .05 = “close”, .08 = “fair”, and .10 = “poor”) and the CFI (.99 = “excellent”, .95 = “close”, .92 = “fair”, and .90 = “poor”) are associated with specific adjectives, allowing for a more refined interpretation of fit indices.

**Cisgender Black, Asian American and Latine Women**

**Thin-Ideal Internalization.** All models showed poor fit across all racial and ethnic groups, including Black (CFI = 0.737, RMSEA = 0.239, SRMR = 0.085), Asian American (CFI = 0.694, RMSEA = 0.237, SRMR = 0.098), and Latine women (CFI = 0.832, RMSEA = 0.209, SRMR = 0.055). Notably, the pathway from acculturative stress to body dissatisfaction was significant for Black ($B = .30$ [95% CI: .15, .45] $\beta = .25$, $p < .001$) and Asian American women ($B = .21$ [95% CI: .07, .35] $\beta = .18$, $p = .003$). However, the path between acculturative stress and body dissatisfaction was not significant for Latine women ($B = .20$ [95% CI: -.02, .43] $\beta = .15$, $p = .087$). Body dissatisfaction mediated the relation between acculturative stress and disordered eating for Black ($B = .02$ [95% CI: .01, .03] $\beta = .06$, $p = .002$) and Asian American women ($B = .01$ [95% CI: .003, .03] $\beta = .04$, $p = .025$), but not Latine women ($B = .01$ [95% CI: -.001, .03] $\beta = .04$, $p = .143$). The standardized path estimates for each racial/ethnic group are presented in Figure 3.
Figure 3

Results of Path Analysis for Black, Asian American, and Latine Women for Thin-Ideal Internalization

Note. Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.

Muscular-Ideal Internalization. All models showed poor fit for Black (CFI = 0.717, RMSEA = 0.242, SRMR = 0.085). and Latine women (CFI = 0.821, RMSEA = 0.196, SRMR = 0.057). There was a notable difference between groups, the path from muscular-ideal internalization to body dissatisfaction was significant for Latine women (B = -.04 [95% CI: -.08, -.01] β = -.19, p = .022) and not Black women (B = -.02 [95% CI: -.04, .002] β = -.10, p = .061). The standardized path estimates for each racial/ethnic group are presented in Figure 4.
Figure 4

Results of Path Analysis for Black and Latine Women for Muscular-Ideal Internalization

Note. Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.

**Hourglass-Ideal Internalization.** The model showed poor fit for Latine women (CFI = 0.843, RMSEA = 0.162, SRMR = 0.045). The direct path between acculturative stress and disordered eating was significant ($c$; $B = .11 \ [95\% \text{ CI}: .07, .15] \ \beta = .37, p < .001$). Similarly, the indirect path between acculturative stress and disordered eating mediated by hourglass-ideal internalization ($B = .03 \ [95\% \text{ CI}: .01, .05] \ \beta = .09, p = .007$) was significant. However, body dissatisfaction did not mediate the relation between acculturative stress and disordered eating ($B = .01 \ [95\% \text{ CI}: -.01, .03] \ \beta = .04, p = .294$). Finally, hourglass ideal internalization and body dissatisfaction did not mediate the relation between acculturative stress and disordered eating ($B = -.001 \ [95\% \text{ CI}: -.01, .004] \ \beta = -.01, p = .659$). The standardized path estimates for each Latine women are presented in Figure 5.
Figure 5

*Results of Path Analysis for Latine Women for Hourglass-Ideal Internalization*

![Path Analysis Diagram]

*Note.* Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.

**Cisgender Black, Asian American, and Latine Men**

**Thin-Ideal Internalization.** The model showed poor fit for Asian American (CFI = 0.902, RMSEA = 0.149, SRMR = 0.050) and Latine (CFI = 0.744, RMSEA = 0.256, SRMR = 0.085) men. There were no significant differences in paths between Asian American and Latine men. The standardized path estimates for each racial/ethnic group are presented in Figure 6.
Results of Path Analysis for Asian American and Latine Men for Thin-Ideal Internalization

Note. Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.

Muscular-Ideal Internalization. The model showed poor fit for Black (CFI = 0.798, RMSEA = 0.219, SRMR = 0.068), Asian American (CFI = 0.810, RMSEA = 0.193, SRMR = 0.057) and Latine (CFI = 0.683, RMSEA = 0.302, SRMR = 0.099) men. There were notable differences between each racial/ethnic group. The pathway from muscular-ideal internalization to body dissatisfaction was significant for Black (B = -.07 [95% CI: -.11, -.03] \( \beta = -.35, p < .001 \)), and Asian American men (B = -.05 [95% CI: -.09, -.01] \( \beta = -.27, p = .022 \)), however not for Latine men (B = -.06 [95% CI: -.12, .002] \( \beta = -.26, p = .057 \)). Further, the relation between acculturative stress and body dissatisfaction significant for Black men (B = .21 [95% CI: .03, .40] \( \beta = .22, p = .026 \)), but not for Asian American (B = -.02 [95% CI: -.22, .17] \( \beta = -.03, p = .798 \)) or Latine men (B = .18 [95% CI: -.11, .47] \( \beta = .15, p = .233 \)). Additionally, the path from muscular-
ideal internalization to disordered eating behaviors was significant for Asian American (B= .02 [95% CI: .004, .03] \( \beta = .28, p = .001 \)), and Latine men (B= .02 [95% CI: .01, .03] \( \beta = .33, p < .001 \)), but not for Black men (B= .01 [95% CI: -.003, .21] \( \beta = .11, p = .240 \)). Further, muscular-ideal internalization mediated the relation between acculturative stress and disordered eating for Asian American (B= .03 [95% CI: .01, .06] \( \beta = .10, p = .004 \)) and Latine men (B= .04 [95% CI: .02, .08] \( \beta = .15, p = .007 \)), but not for Black men (B= .01 [95% CI: -.01, .04] \( \beta = .05, p = .280 \)).

The standardized path estimates for each racial/ethnic group are presented in Figure 7.

**Figure 7**

Results of Path Analysis for Black, Asian American and Latine Men for Muscular-Ideal Internalization

Note. Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.
**Multiracial Women**

**Thin-, Muscular-, and Hourglass-Ideal Internalization.** The model showed poor fit for the thin-ideal internalization model for Multiple-Minority (CFI = 0.514, RMSEA = 0.263, SRMR = 0.106) and Majority-Minority women (CFI = 0.514, RMSEA = 0.263, SRMR = 0.106). Additionally, the model showed fair fit for the muscular-ideal internalization model for Multiple Racial-Minority (CFI = 0.921, RMSEA = 0.099, SRMR = 0.074) and Majority-Minority women (CFI = 0.921, RMSEA = 0.099, SRMR = 0.074). Finally, the model for hourglass-ideal internalization showed excellent fit for Multiple Racial-Minority (CFI = 1.00, RMSEA = 0.003, SRMR = 0.051) and Majority-Minority women (CFI = 1.00, RMSEA = 0.003, SRMR = 0.051). There were no significant differences in any of the paths across each model for the two groups. The standardized path estimates for each group are presented in Figures 8, 9, and 10.
Figure 8

Results of Path Analysis for Multiple Racial-Minority and Majority-Minority Women for Thin-Ideal Internalization

Note. Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.
Figure 9

Results of Path Analysis for Multiple Racial-Minority and Majority-Minority Women for Muscular-Ideal Internalization

Note. Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.
Figure 10

Results of Path Analysis for Multiple Racial-Minority and Majority-Minority Women for Hourglass-Ideal Internalization

Note. Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.

LGBT People of Color

Thin-Ideal Internalization. The model showed a fair fit for LGBT men of color (CFI = 0.974, RMSEA = 0.108, SRMR = 0.045). The path between acculturative stress and disordered eating behaviors was significant (B = .24 [95% CI: .15, .32] β = .82, p < .001). However, the path between acculturative stress and disordered eating was not mediated by thin-ideal internalization (B = .03 [95% CI: -.003, .13] β = .12, p = .290). Further, body dissatisfaction did not mediate the relation between acculturative stress and disordered eating (B = .002 [95% CI: -.02, .05] β = .01, p = .883). Finally, the path between acculturative stress and disordered eating behaviors was not mediated by thin-ideal internalization and body dissatisfaction (B = -.01 [95% CI: -.07, .01] β = -.03, p = .644). The standardized path estimates for the model presented in Figure 11.
**Figure 11**

*Results of Path Analysis for LGBT Men of Color for Thin-Ideal Internalization*

![Path Analysis Diagram](image)

*Note.* Standardized coefficients for direct and indirect effects are presented; *p < .05, **p < .01, ***p < .001.

**Muscular-Ideal Internalization.** The model showed a close fit for LGBT men of color (CFI = 1.00, RMSEA = 0.00, SRMR = 0.040), however the model was considered a poor fit for LGBT women of color (CFI = 0.909, RMSEA = 0.160, SRMR = 0.052). The path between body dissatisfaction and disordered eating was significant for LGBT women of color (B = .08 [95% CI: .04, .12] β = .34, p < .001), and not LGBT men of color (B = .06 [95% CI: -.04, .14] β = .22, p = .152). Further, acculturative stress and disordered eating was mediated by body dissatisfaction for LGBT women of color (B = .04 [95% CI: .01, .08] β = .12, p = .015) and not for LGBT men of color (B = .02 [95% CI: -.01, .05] β = .07, p = .156). The standardized path estimates for each group are presented in Figure 12.
Discussion

Research supports the relation between acculturative stress and disordered eating behaviors across groups of racial and ethnic men and women (Kalantsiz et al., 2023). Additionally, thin-ideal internalization is a supported mediator of the relation between acculturative stress and disordered eating behaviors (Warren and Akoury, 2020). However, the existing literature examining the link between acculturative stress and disordered eating behaviors among people of color predominantly focuses on Latine men and women (Menon & Harter, 2012; Warren & Rios, 2012), with limited attention given to Asian American men and women (Liao et al., 2020; Kwan et al., 2018), Multiracial individuals (Burke et al., 2021b; Ivezaj et al., 2010) and Black women (Gordon et al., 2010). Hence, there is a need for additional research among men and women across diverse racial and ethnic samples, as well as in other...
samples that have been historically overlooked, such as LGBT (i.e., lesbian, gay, bisexual and transgender) people of color. In addition to the lack of representation in the literature, many of the samples in the aforementioned studies consisted of college age women from predominately white institutions (Burke et al., 2021a; Franko et al., 2007; Frederick et al., 2022a, b; Gordon et al., 2010; Kroon Van Diest et al., 2014; Kwan et al., 2018; Perez et al., 2002) limiting the generalizability of their findings. In addition, there is a paucity of literature investigating the influence of the internalization of body image ideals other than thinness (i.e., muscular-, and hourglass-ideal).

The current study aimed to address these gaps by examining the role of thin-, muscular-, and hourglass-ideal internalization and body dissatisfaction as mediators of the relation between acculturative stress and disordered eating behaviors among cisgender heterosexual Black, Latine, Asian American, Multiracial men and women and LGBT men and women of color from a non-university sample. Results supported the link between acculturative stress and disordered eating behaviors among all racial and ethnic groups, with the exception of Multiracial women. Further, all evaluated body image ideals mediated the relation between acculturative stress and disordered eating behaviors for cisgender heterosexual Black, Asian American and Latine women. However, the full model examining body image ideals and body dissatisfaction as mediators of acculturative stress and disordered eating behaviors was not significant for any of the groups. There were several additional significant direct and mediated relations within specific sub samples, which are discussed in more detail in the following sections.
Cisgender Heterosexual Black, Asian American and Latine Women

**Direct Relation between Acculturative Stress and Disordered Eating Behaviors**

The current study’s findings are consistent with the extensive literature highlighting the direct link between acculturative stress and disordered eating behaviors (Akoury et al., 2019; Gordon et al., 2010; Kroon Van Diest et al., 2014; Kwan et al., 2018; Perez et al., 2002; Simmons & Limbers, 2019). Moreover, the current study expands this literature in two ways. First, it examines this relation within subsamples of Black, Asian American and Latine women, rather than as a single group (i.e., as people of color; Akoury et al., 2019; Kwan et al., 2018; Perez et al., 2002). Second, the study helps generalize these findings across a broader range of disordered eating behaviors, as most prior investigations have focused on bulimic symptoms (Gordon et al., 2010; Kroon Van Diest et al., 2014; Perez et al., 2002).

**Body Image Ideals as a Mediator of the Relation Between Acculturative Stress and Disordered Eating Behaviors**

The current study also explored the role of internalizing body image ideals, including the thin-, muscular-, and hourglass-ideals, as a mediator of the relation between acculturative stress and disordered eating behaviors in women of color. Notably, not all body image ideals were tested due to the risk of inflating Type I error; rather, the hypotheses regarding body image ideals were based on prior empirical evidence (Burke et al., 2021a; Kroon Van Diest, 2014; Frederick et al., 2022a, b; Menon & Harter, 2012). In the current study, all body image ideals that were evaluated (i.e., thin-, muscular-, hourglass-) mediated the relation between acculturative stress and disordered eating behaviors across groups of cisgender heterosexual Black, Asian American and Latine women. Specific findings for each subgroup are outlined in further detail in the following paragraphs.
**Black Women.** Within the subsample of Black women, thin- and muscular-ideal internalization mediated the relation between acculturative stress and disordered eating behaviors (internalization of the hourglass-ideal was not evaluated). These results expand on the understanding of the relation between acculturative stress and disordered eating behaviors among Black women. Specifically, previous studies have identified direct associations between acculturative stress and disordered eating behaviors (Kroon Van Diest et al., 2014), acculturative stress and thin-ideal internalization (Gordon et al., 2010), and thin- and muscular-ideal internalization and disordered eating behaviors among Black women (Burke et al., 2021a; Frederick et al., 2022b). However, these variables have not been examined simultaneously until now. In sum, these findings highlight the importance of considering multiple body image ideals when conceptualizing disordered eating behaviors and acculturative stress in this population.

**Asian American Women.** Among Asian American women, thin-ideal internalization mediated the relation between acculturative stress and disordered eating behaviors (muscular-, and hourglass-ideal internalization were not evaluated in this subsample). These findings expand the existing literature, which has identified direct links between acculturative stress and disordered eating behaviors (Akoury et al., 2019; Kroon Van Diest et al., 2014; Kwan et al., 2018; Simmons & Limbers, 2019) and thin-ideal internalization and disordered eating behaviors (Burke et al., 2021a; Frederick et al., 2022b; Hernández et al., 2021) among Asian American women. Future research should examine muscular-and hourglass-ideal internalization as a mediator between this relation for this population.

**Latine Women.** For Latine women, all the ideals evaluated (thin-, muscular-, and hourglass) mediated the relation between acculturative stress and disordered eating behaviors. Prior studies have documented the direct association between thin-, muscular-, and hourglass-
ideal internalization and disordered eating behaviors (Hernández et al., 2021; Frederick et al., 2022b; Burke et al., 2021a; Rodgers et al., 2018), as well as the link between acculturative stress and thin-, and muscular-ideal internalization (Kwan et al., 2018; Menon & Harter, 2012) among Latine women. The present study extends this research by examining the connections among all three variables. Moreover, the current study both replicated and broadened the work of Menon and Harter (2012), who found that thin-ideal internalization mediated the relation between acculturative stress and negative body image (i.e., body dissatisfaction and body esteem) among Latine women. The current study demonstrated this mediation in relation to disordered eating behaviors, rather than solely to negative body image. In addition, the current research evaluated additional body image ideals beyond the thin-ideal, thus providing a more comprehensive understanding of the mechanisms underlying the relation between acculturative stress and disordered eating behavior.

**Body Dissatisfaction as a Mediator of the Relation Between Acculturative Stress and Disordered Eating Behaviors**

The current study also examined the potential mediating role of body dissatisfaction for the relation between acculturative stress and disordered eating behaviors. Notably, this relation was tested across three different models that included different body image ideals (i.e., thin-, muscular-, and hourglass-ideal). Results added to the previous literature which reported direct links between acculturative stress and bulimic symptoms (Kwan et al., 2018; Gordon et al., 2010), acculturative stress and body dissatisfaction (Kroon Van Diest et al., 2014) and associations among all three variables (Perez et al., 2002; Kroon Van Diest et al., 2014; Menon & Harter, 2012) among Black, Asian American and Latine women. Further description of the results for each subgroup are outlined in the following paragraphs.
Black Women. Within the subsample of Black women, body dissatisfaction mediated the relation between acculturative stress and disordered eating behaviors. These results add to those of Perez and colleagues (2002) which supported the association among acculturative stress, body dissatisfaction and bulimic symptoms in a mixed sample of Latine and Black women. Additionally, the current study supported the findings of Kroon Van Diest and colleagues (2014) who reported that acculturative stress moderated the relation between body dissatisfaction and bulimic symptoms among Black women in their sample. The current study expanded on the aforementioned findings by utilizing a subsample of only Black women and expanding this relation to include disordered eating behaviors. Notably, authors posited that Black women may experience increased acculturative stress due to specific body image ideal pressures within Black culture. Researchers hypothesized that there could be familial pressure to conform to the Black cultural body ideal, which is similar to the hourglass-ideal (Kroon Van Diest et al., 2014). These pressures to adhere to their cultural body image ideal (hourglass-ideal) might be unique to Black women because the cultural body image ideals from Latine and Asian cultures are similar to the U.S. thin-ideal (Akoury et al., 2019; Altabe, 1998). Additionally, it is important to highlight that both the aforementioned and current study utilized cross-sectional data, thus directionality of the results remains unclear. Future research should use a longitudinal approach, and examine additional stressors, such as familial pressure, among Black women to provide further understanding regarding the relation between acculturative stress and disordered eating within this group.

Asian American Women. Within the subsample of Asian American women, body dissatisfaction mediated the relation between acculturative stress and disordered eating behaviors. Although previous studies have supported the link between acculturative stress and
disordered eating behaviors among Asian American women (Kwan et al., 2018; Akoury et al., 2019), body dissatisfaction has often been overlooked as a correlate of this relation among this population (Menon and Harter, 2012; Gordon et al., 2010). Building on the limited literature, the current study’s results add to those of Kroon Van Diest and colleagues (2014), who found that acculturative stress did not moderate the relation between body dissatisfaction and bulimic symptoms for Asian American women. Notably, Kroon Van Diest and colleagues’ study focused exclusively on bulimic symptoms, rather than a broader range of disordered eating behaviors. In addition, as previously mentioned, both the current study and Kroon Van Diest and colleagues (2014) utilized cross-sectional data, limiting the ability to establish causality. Therefore, future investigations should utilize a longitudinal design to examine the directionality among acculturative stress, body dissatisfaction and disordered eating behaviors in samples of Asian American women.

**Latine Women.** For Latine women in the current study, body dissatisfaction only mediated the relation between acculturative stress and disordered eating behaviors in the muscular-ideal model, not the thin-or hourglass-ideal model. These findings add to those of Perez and colleagues (2002), who reported significant associations among acculturative stress, body dissatisfaction and bulimic symptoms in a mixed sample of Latine and Black women. Notably, the current study expands upon these findings by analyzing this relation within a subsample of Latine women and including a broader range of disordered eating behaviors. Previous research has indicated that Latine women experience higher levels of muscular-ideal internalization as compared with Black and Asian American women (Frederick et al., 2022b). This finding, combined with the current results suggest that muscular-ideal internalization may be an important construct to consider among this population. Further research is needed to
examine the complex relation among acculturative stress, muscular-ideal internalization, body dissatisfaction and disordered eating among Latine women.

Cisgender Heterosexual Black, Asian American, and Latine Men

Direct Relation between Acculturative Stress and Disordered Eating Behaviors

Results of the current study support the existing literature linking acculturative stress and disordered eating behaviors in men of color (Kwan et al., 2018; Simmon & Limbers, 2019; Menon & Harter, 2012; Warren & Rios, 2012; Liao et al., 2020). However, prior research has utilized various samples, some of which combined men of color into a single group (Kwan et al., 2018), or grouped Latine men and women together (Menon & Harter, 2012). Additionally, other studies have focused on adolescents (Simmons & Limbers, 2019) or utilized a qualitative approach (Liao et al., 2020). Therefore, the current study contributes to the literature by quantitatively investigating these associations within separate subsamples of cisgender heterosexual Latine, Asian American and Black men. Additionally, this investigation supports the generalization of these findings to a broader range of disordered eating behaviors, as prior research predominantly focused on bulimic symptoms (Kwan et al., 2018) or body dissatisfaction (Liao et al., 2020; Menon & Harter, 2012; Warren & Rio, 2012).

Body Image Ideals as a Mediator of the Relation Between Acculturative Stress and Disordered Eating Behaviors

The current study aimed to investigate the role of body image ideal internalization (i.e., thin-, and muscular-ideal) as a mediator of the relation between acculturative stress and disordered eating behaviors in subsamples of men of color. Given the risk of inflating Type I error, not all body image ideals were included in the analyses; rather body image ideals were tested based on prior empirical evidence (Warren & Rios, 2012; Kwan et al., 2018; Frederick et
al., 2022a, b; Menon & Harter, 2012). Results revealed that hypothesized body image ideals (i.e., thin-, and muscular-) mediated the relation between acculturative stress and disordered eating behaviors among cisgender heterosexual Asian American and Latine men, but not Black men. Details regarding specific findings for each subgroup are provided in the subsequent paragraphs.

**Black Men.** Among Black men, muscular-ideal internalization did not mediate the relation between acculturative stress and disordered eating behaviors, (thin-ideal internalization was not evaluated). Notably, these findings were of particular interest as previous research suggests that Black men typically report higher levels of muscular-ideal internalization compared with white and Latine men (Frederick et al., 2022b). However, despite this, Black men also report higher levels of body satisfaction and fewer negative feelings about weight gain compared to Latine and Asian American men, which may serve as a protective factor against internalizing the muscular-ideal (Rodgers et al., 2018). Future research should examine body satisfaction as a protective factor against muscular-ideal internalization and disordered eating behaviors among Black men.

**Asian American Men.** Within the subsample of Asian American men, both thin-, and muscular-ideal internalization mediated the relation between acculturative stress and disordered eating behaviors. These findings contribute to the limited prior research in this area, which has yielded mixed results. For example, one qualitative study supported the link between acculturative stress and muscular-ideal internalization among 11 Asian American men (Liao et al., 2020), while a quantitative study reported no association among a general sample of racial and ethnically diverse men and women, including 61 Asian American men and women (Kwan et al., 2018). It is possible these studies yielded inconsistent results because they used contrasting methodologies (qualitative vs. quantitative), and their samples differed in size and genders.
Moreover, neither study examined relations among all three variables (i.e., acculturative stress, muscular-ideal internalization and disordered eating). The current study extends these prior findings by providing empirical support for the role of muscular-and thin-ideal internalization as a mediator between acculturative stress and disordered eating behaviors. Furthermore, by analyzing an additional body image ideal (i.e., thin-ideal internalization), current findings add to our understanding of mechanisms explaining the relation between acculturative stress and disordered eating behaviors.

**Latine Men.** Among Latine men in the study, thin-, and muscular-ideal internalization mediated the relation between acculturative stress and disordered eating behaviors. Moreover, the current study both replicated and extended the work of previous researchers. Specifically, the current study was consistent with the work of Warren and Rios (2012), who found a significant direct relation between acculturative stress and disordered eating behaviors among a subsample of Latine men. Additionally, the current study expanded upon their findings by demonstrating that muscular-ideal internalization served as a mediator. Further, current findings also build upon those of Menon and Harter (2012), who identified thin-ideal internalization as a mediator of the relation between acculturative stress and negative body image (i.e., body dissatisfaction and body esteem) in a mixed gender sample that included Latine men. The current study expanded on the findings of Menon and Harter (2012), by examining this mediation in relation to disordered eating behaviors in a subsample of Latine men, rather than solely focusing on negative body image and utilizing a mixed gender sample.
Body Dissatisfaction as a Mediator of the Relation Between Acculturative Stress and Disordered Eating Behaviors

Among all subgroups of cisgender heterosexual men, body dissatisfaction did not mediate the relation between acculturative stress and disordered eating. Whereas previous literature identified a direct association between acculturative stress and body dissatisfaction among Latine men (Menon & Harter, 2012) and Asian American men (Liao et al., 2020), this direct relation was not significant in the current study. Notable distinctions between the current and aforenoted studies might provide insight into the difference in results. Specifically, Menon and Harter (2012) utilized a mixed sample of Latine men and women, while the current study focused on a subsample of Latine men only. For Asian American men, Liao and colleagues (2020) utilized a qualitative design with nine participants, which is different from the current study’s quantitative approach with a larger sample of 111 Asian American men. Finally, the current study expanded the existing literature by reporting a direct association between acculturative stress and body dissatisfaction within the subsample of Black men. These results suggest that acculturative stress may be an important factor when examining body dissatisfaction among Black men. Previous work has indicated that Black men report higher levels of body satisfaction compared with men from other racial and ethnic groups (Frederick et al., 2022a). This study yielded similar results, as Black men reported lower levels of body dissatisfaction.

Additionally, previous research reports a link between body dissatisfaction and disordered eating across racial and ethnic groups of men (Nagata et al., 2020a; Lanntz et al., 2018; Rodgers et al., 2018; Quittkat et al., 2019). However, the current study’s results did not support the existing research as there were no significant associations between body dissatisfaction and disordered eating behaviors among Black, Latine and Asian American men. The reasons for the
lack of direct associations between body dissatisfaction and disordered eating in this study, as well as the lack of significant mediation among the subgroups of men, remain unclear. These findings could imply that body dissatisfaction does not need to be present, rather racially and ethnically diverse men may engage in disordered eating behaviors as a strategy to cope with acculturative stress (Warren & Rio, 2012). For example, emotional eating might serve to alleviate stress associated with adapting to Westernized norms (Warren & Rio, 2012). Future research should continue to examine factors that may further explain the association between acculturative stress of disordered eating behaviors within and across samples of Black, Asian American and Latine men.

**Majority-Minority and Multiple Racial-Minority Women**

There is minimal literature examining disordered eating and its correlates within Multiracial samples (Burke et al., 2021b). Thus, the current study examined the relations among acculturative stress, body image ideal internalization, body dissatisfaction and disordered eating as an exploratory aim for this group. As suggested by Burke and colleagues (2021b) the Multiracial group was examined separately based on their Majority-Minority identity (i.e., individuals who identify as white and another racially minoritized identity; Atkin et al., 2022) or Multiple Racial-Minority identity (i.e., individuals who identify with two racially or ethnically minoritized identities; Atkin et al., 2022). Body image ideal internalization and body dissatisfaction did not mediate the relation between acculturative stress and disordered eating behaviors for either the Majority-Minority, or Multiple Racial-Minority groups of women. Results were similar for both groups of Multiracial women; therefore, the results presented in the subsequent paragraphs are not separated based on Multiracial identities.
Direct Relation between Acculturative Stress and Disordered Eating Behaviors

Previous research has recognized the importance of examining correlates of disordered eating behaviors within samples of Multiracial women due to similarities in levels of disordered eating behaviors among Multiracial and white women (Burke et al., 2021b). Contrary to the findings for other subgroups in the study, there was no significant direct association found between acculturative stress and disordered eating behaviors among Multiracial women. The lack of significant findings may be partly attributed to the small sample sizes for the Majority-Minority ($n=80$) and Multiple Racial-Minority ($n=52$) subgroups. Additionally, the considerable diversity within each of the subsamples highlights the potential for variability in experiences with acculturative stress. For example, the Multiple Racial-Minority subgroup consisted of predominantly Native American/ Black (12.7 %) and Black/Latine (8.2%) women, and it is unclear if these women experience acculturative stress similarly. Future research should focus on examining the relation between acculturative stress and disordered eating behaviors among specific Multiracial identities.

Body Image Ideals as a Mediator of the Relation Between Acculturative Stress and Disordered Eating Behaviors

Among Majority-Minority and Multiple Racial-Minority women, thin-, muscular-, and hourglass-ideal internalization did not mediate the relation between acculturative stress and disordered eating behaviors. Notably, there were significant direct associations for this group. Specifically, results supported the relation between thin-, and muscular-ideal internalization and disordered eating behaviors for both groups of women, but not hourglass-ideal internalization. It could be argued that these results support prior researchers’ hypotheses that Multiracial individuals might engage in disordered eating behaviors to achieve an ideal body image (Godoy,
2012; Katzman et al., 2004; Kelch-Oliver & Ancis, 2007; Ricciardelli et al., 2007). Given that previous studies have primarily addressed the prevalence of disordered eating behaviors among Multiracial samples (Burke et al., 2021b), these results contribute to the literature by reporting thin-, and muscular-ideal internalization as correlates of disordered eating behaviors.

**Implications and Future Research Specific to Majority-Minority and Multiple Racial-Minority Women**

Future research is needed to understand the complex experiences of acculturative stress and disordered eating behaviors among Multiracial individuals. Specifically, it should be noted that the acculturative stress measure used in the study has not been validated with a Multiracial sample. Given the unique intersectional identities and experiences of Multiracial individuals, there is a need for culturally sensitive and inclusive measures that capture the complexities of their acculturative stress experiences. Future research should prioritize the development and validation of such measures to ensure a comprehensive understanding of acculturative stress and its impact on Multiracial individuals' mental health and well-being.

**LGBT Men and Women of Color**

**Direct Relation between Acculturative Stress and Disordered Eating Behaviors**

Although the relation between acculturative stress and disordered eating behaviors has been well documented in samples of people of color (Kalantsiz et al., 2023), it is unclear if this association is also relevant for LGBT people of color. Overall, current results supported the association between acculturative stress and disordered eating behaviors among LGBT men and women of color. Details regarding specific findings for each subgroup are provided in the subsequent paragraphs.
Body Image Ideals as a Mediator of the Relation Between Acculturative Stress and Disordered Eating Behaviors

The current study explored the role of thin-, and muscular-ideal internalization as mediators of the relation between acculturative stress and disordered eating behaviors among LGBT men and women of color. Notably, rather than testing all body image ideals and potentially inflating Type I error, body image ideals were tested based on prior empirical research (Frederick et al., 2022a, b; Amodeo et al., 2020; Vocks et al., 2009). Results for each subgroup are described in detail below.

**LGBT Women of Color.** Among LGBT women of color, muscular-ideal internalization did not mediate the relation between acculturative stress and disordered eating behaviors (thin-ideal internalization was not evaluated). Notably, the subsample of LGBT women of color predominantly consisted of cisgender, bisexual Latine women (as seen in Table 3). Previous research has suggested that cisgender LGB women endorse higher levels of muscular-ideal internalization as compared to their transgender (Rasmussen et al., 2023) and heterosexual counterparts (Yean et al., 2013; Frederick et al., 2022a). However, it is important to note that higher mean levels of muscular-ideal internalization may not necessarily imply mediation. Moreover, this subsample included individuals with various intersecting identities such as gender, sexual orientation and race and ethnicity, which could differentially influence the examined relations. Future research would benefit from examining the relation among acculturative stress, muscular-ideal internalization, and disordered eating behaviors in racially and ethnically homogenous subsamples of LGBT women of color.

**LGBT Men of Color.** Within the subsample of LGBT men of color, thin- and muscular-ideal internalization did not mediate the relation between acculturative stress and disordered
eating behaviors. Prior research has highlighted differences in reported levels of thin-and muscular-ideal internalization across LGBT identities. For example, transgender and cisgender gay men report higher levels of thin-ideal internalization as compared to cisgender heterosexual men (Rasmussen et al., 2023). Similarly, gay and bisexual men endorse lower levels of muscular-ideal internalization as compared to heterosexual men (Frederick et al., 2022a).

However, these constructs have previously only been examined independently by gender, sexual orientation and race and ethnicity, and not at the intersection of these identities. Additionally, there is a need for further research on correlates of disordered eating within the intersection of specific identities (e.g., only Asian American cisgender gay men), rather than in a larger mixed sample.

**Body Dissatisfaction as a Mediator of the Relation Between Acculturative Stress and Disordered Eating Behaviors**

Although there is a paucity of literature explaining the mechanisms linking acculturative stress and disordered eating behaviors among LGBT people of color, researchers have hypothesized that individuals with multiple marginalized identities, such as LGBT people of color, could experience heightened acculturative stress, body dissatisfaction and disordered eating behaviors due to negative experiences associated with their multiple marginalized identities (Burke et al., 2021b). The current study adds to the existing research by identifying body dissatisfaction as a mediator of the relation between acculturative stress and disordered eating behaviors among LGBT women of color. However, body dissatisfaction did not mediate the link between acculturative stress and disordered eating behaviors among LGBT men of color. Future research should continue to examine factors that might explain the association between acculturative stress and disordered eating behaviors in LGBT people of color.
Implications and Future Research Specific to LGBT Women and Men of Color

Overall, these findings highlight the need for further research to explore the unique experiences and stressors faced by LGBT individuals of color, particularly concerning acculturative stress and its implications for mental health and well-being. Future research should consider examining the influence of Western values regarding gender norms on acculturative stress and disordered eating behaviors within samples of LGBT people of color. Specifically, research has linked disordered eating behaviors among LGB men and women with factors such as gender roles and experiences of sexual objectification (Parker & Harriger, 2020). These findings may suggest that current acculturative stress measures, including that used in this investigation might not be adequately addressing specific Western cultural factors (i.e., gendered factors) that could more accurately reflect this construct for this population. Additionally, future research is needed to examine the relations among acculturative stress, body image ideal internalization, body dissatisfaction, and disordered eating behaviors within ethnically and racially homogeneous samples of LGBT men and women of color.

Strengths and Limitations

This study has several notable strengths. First, it included a large sample (N=1,532) which facilitated subgroup analysis across a variety of identities. Additionally, data were collected from across the United States, which resulted in a rich diverse community-based sample with a wide spectrum of identities including age, gender, race/ethnicity, and sexual orientation. The overall diversity of the sample not only enhanced the ecological generalizability of the findings, but also addressed a critical gap in the existing literature, which has predominately focused on samples of undergraduate women (Burke et al., 2021a; Franko et al., 2007; Frederick et al., 2022a, b; Gordon et al., 2010; Kroon Van Diest et al., 2014; Kwan et al.,
Furthermore, there is minimal research examining associations among acculturative stress, muscular-and hourglass-ideal internalization, body dissatisfaction, and disordered eating behaviors. Existing literature predominately focuses on thin-ideal internalization, and largely overlooks the internalization of other body image ideals (such as the hourglass- and muscular-ideals, Warren & Akoury, 2020). The inclusion of other body image ideals in the current study facilitated a more comprehensive understanding of the multifaceted spectrum of mechanisms underlying disordered eating behaviors, particularly among individuals with marginalized identities. Lastly, this study prioritized the inclusion of individuals from historically marginalized groups, who are often underrepresented in the current literature.

However, certain limitations of this study should be noted. Notably, due to the small sample sizes of certain subgroups, we were not able to examine all possible combinations of races and ethnicities (e.g., subgroups within the Multiracial subsample). Burke and colleagues’ (2021b) emphasized the heightened heterogeneity within Multiracial samples, advocating for more nuanced subgroup distinctions on specific identities (e.g., Black and Latine; Asian and Black) rather than an overarching Multiracial category. Another limitation of the current investigation is that unmeasured variables could have influenced the examined relations, such as demographic location, SES, language, and ability status. Furthermore, the LGBT people of color sample was grouped based on sexual and gender identity; thus, it included a variety of racial and ethnic identities. Additionally, the study did not include non-binary, gender nonconforming (GNC) and genderqueer individuals. Non-binary, GNC, and genderqueer individuals, like other marginalized groups, have been systematically excluded from research (Parker & Harriger, 2020). The current study elected not to include this group due to the literature indicating that nonbinary and genderqueer individuals can endorse an androgynous ideal (an ideal that does not
adhere to either feminine or masculine body image features; Cusack & Galupo, 2021; Galupo et al., 2021) which was not measured in this study.

Another limitation of the current study stems from the constraints inherent in secondary data analysis. Specifically, the measures used to examine acculturative stress and body dissatisfaction have not been sufficiently validated among various subgroups within this sample. Although the SAFE measure used to assess acculturation in this study has previously been utilized in a range of samples (Latine men, undergraduate students, adolescents; Kwan et al., 2018; Simmons & Limbers, 2019; Warren & Rios, 2012), it might demonstrate heightened sensitivity towards recent immigrants or first-generation individuals (Hormozi et al., 2018; Khan et al., 2018). However, it is important to acknowledge that immigration status does not necessarily correlate with level of acculturation. For example, Chamorro and Flores-Ortiz (1998) highlighted that second-generation Latine women reported the highest levels of acculturation as compared to those of first through fifth-generation status. To add further context, there are four types of acculturations (i.e., assimilation, integration, separation, and marginalization; Andreouli, 2013), and each might relate differently to an individual’s experience of acculturative stress.

Furthermore, the body dissatisfaction scales (i.e., BPSS-R and BPSS-M) used in this study were gendered, such that transgender women and cisgender women filled out the BPSS-R, and transgender men and cisgender men reported on the BPSS-M. Consequently, this approach might have not effectively assessed body dissatisfaction, as the experience of body dissatisfaction with specific body parts varies among LGBT men and women (Grift et al., 2015). Lastly, the study did not assess specific variables related to LGBT identity (e.g., minority stress related to LGBT identities), neglecting the intersectional experience of individuals with other minoritized identities such as ability status, gender identity, sexual orientation and racially/ethnically
minoritized identities. Moreover, stress associated with one’s LGBT identity was not considered, despite its potential impact on disordered eating behaviors and other related factors. Future research would benefit from an intersectional perspective, exploring acculturative stress and minority stress associated with LGBT identities (e.g., internalized homophobia/transphobia) among LGBT people of color.

**Conclusion**

In conclusion, the current study highlights the complex interplay among acculturative stress, body image ideals, body dissatisfaction and disordered eating behaviors among cisgender heterosexual and LGBT men and women of color. Results generally support the link between acculturative stress and disordered eating behaviors across groups. Notably, the lack of various significant mediations highlights the importance of continuing to examine additional factors that might better explain the relation between acculturative stress and disordered eating behaviors. However, certain limitations, such as sample heterogeneity and the lack of specific LGBT-related measures, limit the interpretation of the findings and highlight areas for future research to address these gaps. Future research should also adopt an intersectional framework to explore the relation between acculturative stress and disordered eating behaviors across various identities. There are additional identities that could be impacting the stress associated with acculturation (e.g., body size, SES, ability status). By addressing these gaps, future research can provide a more nuanced understanding of the complex interactions among identity, acculturative stress, body image, and disordered eating behaviors. Further, clinicians and practitioners should focus on fostering support around the acculturation process as well as positive body image. Overall, this study contributes to a more comprehensive understanding of the complex interactions among
identity, acculturative stress, body image, and eating behaviors among individuals with marginalized identities.
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### Table 3

**LGBT Women of Color Demographics**

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<th>Variable Name</th>
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<td>Gender</td>
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<tr>
<td>Transgender Woman</td>
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<td>5</td>
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<tr>
<td>Cisgender Female</td>
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<tr>
<td>Sexual Orientation</td>
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<td></td>
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<td>Bisexual</td>
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<tr>
<td>Lesbian/Gay</td>
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<tr>
<td>Pansexual</td>
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<td>6</td>
</tr>
<tr>
<td>Heterosexual</td>
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<td>2</td>
</tr>
<tr>
<td>Questioning</td>
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<td>Race/ Ethnicity</td>
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### Table 4

**LGBT Men of Color Demographics**

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<th>Variable Name</th>
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</tr>
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<tr>
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Table 5
Multiracial Demographics

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<td>Black/ Latine</td>
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Vita

Taryn Henning was born on June 23rd, 1998 in Laguna Niguel, California. She graduated from San Juan Hills High School in 2016. Taryn was awarded the New American University Scholarship and earned two Bachelor of Science degrees in Psychology and Family and Human Development from Arizona State University in May 2020. Following her undergraduate studies, Taryn served as a Project Coordinator on a grant funded by the Dove Self Esteem Project at Arizona State University from June 2020 until August of 2022. She then began her graduate degree in Counseling Psychology at Virginia Commonwealth University, Richmond, VA in the Fall of 2022. While completing graduate coursework at Virginia Commonwealth University, Taryn served as a graduate level teaching assistant and a practicum clinician at VCU University Counseling Services. Additionally, she worked as a behavioral interventionist at the Children’s Hospital of Richmond at VCU Healthy Lifestyle Center. Taryn will continue her studies as a doctoral student in Counseling Psychology at Virginia Commonwealth University.