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An Exploration of Eating Disorders among Black Women using Intersectionality Theory

Rebecca Gwira
Georgia State University

ACCEPTANCE

This dissertation, AN EXPLORATION OF EATING DISORDERS AMONG BLACK WOMEN USING INTERSECTIONALITY THEORY by Rebecca Gwira, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education & Human Development, Georgia State University.

The Dissertation Advisory Committee and the student's Department Chairperson, as representatives of the faculty, certify that this dissertation has met all standards of excellence and scholarship as determined by the faculty.

_____
Cirleen DeBlaere, PhD
Committee Chair

_____
Tamara Turner, PhD
Committee Member

_____
Don Davis, PhD
Committee Member

_____
Rachel Goode, PhD
Committee Member

_____
Date

_____
Brian Dew, PhD
Chairperson, Department of Department of Counseling and Psychological Services

_____
Paul A. Alberto, PhD
Dean, College of Education & Human Development

AUTHOR'S STATEMENT

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Rebecca Enyonam Gwira
Department of Counseling and Psychological Services
College of Education & Human Development
Georgia State University

The director of this dissertation is:

Cirleen DeBlaere
Department of Counseling and Psychological Services
College of Education & Human Development
Georgia State University
Atlanta, GA 30303

CURRICULUM VITAE

Rebecca Enyonam Gwira

ADDRESS: 950 College of Education, 30 Pryor Street Atlanta, GA, 30303

EDUCATION:

Counseling Psychology Ph.D.	2024	Georgia State University Department of Counseling and Psychological Services
Psychology B.A. Women's Studies Undergraduate Certificate	2016	University of Maryland, College Park

PROFESSIONAL EXPERIENCE:

Research Experience

Identity and Multiculturalism Psychological Research on Intersectionality, Diversity, and Empowerment (IaMPRIDE) research lab
Georgia State University August 2019 – present

Center of Excellence for Eating Disorders
UNC Chapel Hill School of Medicine Summer 2022

Identity Lab
Georgia State University August 2018 – August 2019

Clinical Experience

Duke CAPS | Psychology Intern
Duke University August 2023 – present

Atlanta Psychological Services | Doctoral Practicum Student
Atlanta, GA August 2022 – May 2023

Georgia Tech Counseling Center | Doctoral Practicum Student
Georgia Institute of Technology August 2021 – May 2022

Renfrew Center for Eating Disorders | Clinical Intern
Atlanta, GA September 2020 – July 2021

University Career Services | Career Counseling Intern
Georgia State University August 2019 – May 2020

PRESENTATIONS AND PUBLICATIONS:

Conference presentations

- **Gwira, R.,** DeBlaere, C., Hinger, C. L., & Evanoff, V. (2023, August 3-5). A content analysis of intersectionality, eating disorders, and racial/ethnic minority women. [Poster presentation]. American Psychological Association Convention, Washington, DC.
- Goode, R.W., Godoy, S., Wolfe, H., Olson, K., Agbozo, B., Mueller, A., Noem, T., Malian, H., Peat, C. M., Watson, H., Thornton, L. M., **Gwira, R.** & Bulik, C. M. (2022, September 15-17). *Perceptions and Experiences with Eating Disorder Treatment in the First Year of COVID-19: A Longitudinal Qualitative Analysis.* [Poster presentation]. Eating Disorders Research Society 2022, Philadelphia, PA.
- **Gwira, R.,** shodiya-zeumault, s., Said, I. A., Davis, D., & DeBlaere, C. (2022, March 3-6*). Perfectionism and disordered eating cognitions with women of color: The moderating role of self-compassion*. [Poster presentation]. Association for Women in Psychology 2022 Conference, Chicago, Il.
- **Gwira, R.,** Davari, J., Franco, M. G., Bautista Lopez, I., & Toomey, T. (2021, August 12-14). *The impact of racial ideology on Black help-seeking.* [Poster presentation]. American Psychological Association Convention, San Diego, CA.
- **Gwira, R.,** Franco, M., Johnson, L., & Crawford, M. (2019, June 6-9). *Racial prototypicality and coping among Black students*. Poster session presented at Black Graduate Conference in Psychology, Ann Arbor, MI.

Publications

Hinger, C. L., DeBlaere, C., **Gwira, R**., Aiello, M., Punjwani, A., Tran, N., Cobourne, L., Lord M., Mike, J. (2023). Defining racial allies: A qualitative investigation of White allyship from the perspective of People of Color. *Journal of Counseling Psychology.*

Goode, R. W., Godoy, S. M., Olson, K., Berg, S., Agbozo, B., **Gwira, R**., Xu, Y., Wolfe, H., Bhutani., J., & Alexander, R. (2023). "If I start panicking over having enough, then I start eating too much": Understanding the Eating Behaviors of SNAP Recipients in Larger Bodies during COVID-19. *Eating Behaviors*.

Goode, R., Godoy, S., Wolfe, H., Olson, K., Agbozo, B., Mueller, A.D., Noem, T. N., Malian, H., Peat, C., Thornton, L., Watson, H., **Gwira, R.,** & Bulik, C. (2022). Perceptions and Experiences with Eating Disorder Treatment in the First Year of COVID-19: A Longitudinal Qualitative Analysis. *International Journal of Eating Disorders.*

Goode, R. W., Webster, C. K., & **Gwira, R. E.** (2022). A Review of Binge-Eating Disorder in Black Women: Treatment Recommendations and Implications for Healthcare Providers. *Current Psychiatry Reports*, 1-10.

Gwira, R., DeBlaere, C., shodiya-zeumault, s., & Davis, D. (2021). Perfectionism and disordered eating cognitions with women of color: The moderating role of self-compassion. *Personality and Individual Differences, 179.*

PROFESSIONAL SOCIETIES AND ORGANIZATIONS

American Psychological Association Graduate Student (APAGS) Member
APA Division 35 Student Member
APA Division 17 Student Member
Association for Women in Psychology Student Member
Center of Excellence for Eating Disorders Summer 2022 Fellow

AN EXPLORATION OF EATING DISORDERS AMONG BLACK WOMEN USING INTERSECTIONALITY THEORY

by

REBECCA GWIRA

Under the Direction of Cirleen DeBlaere

ABSTRACT

Eating disorders (ED) research conducted in the United States (U.S.) has historically underrepresented the unique experiences of racial/ethnic minority women compared to White women (Egbert et al., 2022; Gilbert, 2003). There has been a call to action (e.g., Burke et al., 2020; Simone et al., 2022) for the ED field to focus on how the oppression associated with intersections of identity, not just the identities themselves, contribute to the illness. As such, Chapter 1 of this dissertation assessed the state of current eating disorders (ED) research on mutually exclusive racial/ethnic minority groups of women, as well as the responsible use of intersectionality theory by researchers using content analysis. We found low percentages of novel research focused on each racial/ethnic minority group of women. The themes garnered on ED in Asian American women are that experiences of gendered racism and acculturation-specific pressures lead to ED pathology and that there is not as much focus on physical health comorbidities. The themes pertaining to ED in Black women were that there is a focus on BMI/weight as a comorbid physical health variable, unique factors that interact with ED, and the importance of integrating culture-informed definitions into research and treatment to elucidate

ED experiences. Finally, the themes garnered from the articles on Latinas with ED are that they also have higher BMI, tend to use binge/purge ED behaviors, value family-oriented treatment models, and are impacted by acculturative stress and biculturalism. Intersectionality theory was rarely applied explicitly in research on each racial/ethnic minority groups of women, though it was peripherally referenced often.

This information was used to inform a subsequent study, Chapter 2 of this dissertation, on how social determinants of health (e.g., gendered racism, trauma, food insecurity) group and predict ED pathology specifically for Black women using latent profile analysis. The sample was 305 Black Atlanta-based college students. Results yielded a four-class solution as the best-fitting model for the data: a Low Intersectional Stress class (n = 176; 57.8%); a Food Insecurity class (n = 75; 24.6%); a High Intersectional Stress class (HIS; n = 30; 9.8%); and a Moderate Intersectional Stress class (n = 24; 7.9%). Compared to the LIS class, the HIS, FI, and MIS classes had statistically significantly higher means on measures of perceived stress and ED pathology. Future directions and limitations are discussed.

INDEX WORDS: intersectionality, eating disorders, racial/ethnic minority women, social determinants of health, Black women

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A Dissertation

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DEDICATION

This dissertation is dedicated to all with unseen or overlooked struggles with their body image, relationship to food, and disordered eating. To my disordered eating clients, patients, and research participants of color who shared their stories with me, some for the first time in their lives: I hope my work makes you all hopeful about being better understood in your ED experience and recovery.

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A CONTENT ANALYSIS OF INTERSECTIONALITY, EATING DISORDERS, AND RACIAL/ETHNIC MINORITY WOMEN

Eating disorders (ED) are psychiatric conditions often categorized by anorexia nervosa, bulimia nervosa, binge eating disorder, and other specified feeding and eating disorders according to the Diagnostic and Statistical Manual of Mental Disorders-5th edition (DSM-V; American Psychiatric Association, 2013). Lifetime prevalence of anorexia nervosa, bulimia nervosa, and binge eating disorder are estimated at .8%, .28%, and .85%, respectively. ED have comorbidities with mood disorders and substance use disorders, as well as high probabilities of co-occurring sleep problems, cancer, anemia, somatic conditions, diabetes, and hypertension (Udo & Grilo, 2022). ED are also associated with social impairments such as difficulty getting along with others, interference with daily tasks, and problems meeting responsibilities (Udo & Grilo, 2022). Prevalence for suicide attempts for those with ED was between 22-31% across anorexia nervosa, bulimia nervosa, and binge eating disorder, and there is a high mortality rate for ED due to suicide or other reasons (Arcelus et al., 2011; Udo & Grilo, 2022). Of note, other manifestations of ED are gaining attention in the ED literature and clinical milieu including pica (marked by consuming items that are not typically thought of as food or nutritious), purging disorder, and avoidant and restrictive food intake disorder (ARFID) albeit to lesser extent than anorexia nervosa, bulimia nervosa, and binge eating disorder (American Psychiatric Association, 2013). ED are distributed across sociodemographic characteristics such as sex, gender, age, race/ethnicity, and education level, though treatment disparities report underrepresentation of men and racial/ethnic minorities (Udo & Grilo, 2022).

Indeed, ED research conducted in the United States (U.S.) has historically underrepresented the unique experiences of racial/ethnic minority women compared to White women (Egbert et al., 2022; Gilbert, 2003). Much of the earlier research on ED did not report race or ethnicity as demographic information. Moreover, historically, research that has included and reported on experiences of racial/ethnic minority women in their samples has tended to compare the samples of racial/ethnic minority women with White women, with the White women representing the largest subsample of participants (Capodilupo & Forsyth, 2014; Egbert et al., 2022). Such study designs neglect the potential for deeper exploration racial/ethnic minority women.

Racial/ethnic minority women in the U.S. have a unique position in the discourse about ED because of their vulnerability to multiple forms of oppression that often result in disordered eating risk factors, such as trauma, food insecurity, and acculturative stress (Burke et al., 2020; Goode et al., in press; Rodgers et al., 2018). Moreover, women within each racial/ethnic minority group have unique experiences with ED that ought to be further elucidated. Such clarifications require more nuanced within-groups investigations, rather than between-groups approaches (Capodilupo & Forsyth, 2014; Gwira et al., 2021; Pate et al., 1992). Intersectionality theory, which describes experiencing multiple forms of oppression associated with holding multiple marginalized identities (Crenshaw, 1991), can be used as a guiding paradigm for how to clarify and understand within-groups experiences.

Intersectionality theory and ED

The term intersectionality was coined by Kimberlé Crenshaw (1991) to highlight the unique and often unacknowledged experiences of classist and gendered racism in anti-discrimination legal cases and state-sanctioned violence faced by Black women. The theory was

developed from a rich history of Black feminist scholarship (e.g., Cole, 2020; the Combahee River Collective, Guy-Sheftall, 1995) and emphasizes how Black women are at a unique intersection of identity that unfortunately renders them less important in conversations about sexism than White women and in conversations about racism than Black men. As Cho, Crenshaw, and McCall. (2013) put it, "Black females are both too similar to Black men and white women to represent themselves and too different to represent either Blacks or women as a whole" (p. 790). Patricia Hill Collins has also written extensively on intersectionality theory (e.g., 2015; 2020). Analogous to Crenshaw, Collin's foundational scholarship has also highlighted how poor Black American women's marginalized position has rendered them caricatured and invisible (Collins, 2000). The theory extends to other identities as well; racial/ethnic minority women holding other marginalized identities such as low-income and immigrant are not fully recognized by single-axis evaluations of their oppression and are subjected to violence (Crenshaw, 2006). "Race, class, gender, sexuality, age, ability, nation, ethnicity, and similar categories of analysis are best understood in relational terms rather than in isolation from one another" (Collins, 2015; p. 14). Intersectionality theory assumes that oppression is synergistic and needs to be interrogated as such. Consequently, intersectionality theory offers a way to conceptualize experiences, interrogate the status quo, survey the systems that shape our social structures, and guide praxis that can reimagine sociopolitical realities (Collins, 2015).

Stressors related to intersectionality, like the discrimination experiences that come with holding marginalized identities, have been said to manifest as physical and psychological health issues, including ED (Kapilashrami, 2018; Mason et al., 2021; Rodgers et al., 2018). Research on health disparities in ED suggest that a person's gender, and increasingly socioeconomic and

racial/ethnic identity, may increase risk for ED (Beccia et al., 2022; Frederickson & Roberts, 1997; Hazzard et al., 2020; Piran, 2010; Rodgers et al., 2018). There has been a call to action (e.g., Burke et al., 2020; Simone et al., 2022) for the ED field to focus on what happens when gender, sexual orientation, socioeconomic status, weight status, and racial/ethnic identities are considered together and how the oppression associated with intersections of identity, not just the identities themselves, contribute to the illness.

In recent years, some researchers have responded to this call for the use of intersectionality as a theoretical foundation to ED research. Le and colleagues (2021) have written on intersectionality and ED in Asian men and women, analyzing Asian American men's muscularity-oriented disordered eating behaviors at the intersection of gendered racism. They found that gendered racism was positively associated to muscularity-oriented disordered eating whereas racism and ethnic identity alone were not. Similarly, Le and colleagues (2020) previously studied the mechanisms through which gendered racial microaggressions predict ED in Asian American women. In this study, it was determined that gendered racial microaggressions predicted increased disordered eating whereas racism and sexism alone did not. The relationship between gendered racial microaggression and increased disordered eating was positive, strong, and significant through indirect effects of body shame, media internalization, and emotion dysregulation (Le et la., 2020). Furthermore, Parker et al., (2022) recently studied the interaction between Black girls' skin color satisfaction, poor body image, and binge eating. Specifically, they found that Black girls with lower skin color satisfaction did indeed report increased risk for binge eating disorder and use of binge eating behaviors, and that this relationship is mediated by body dissatisfaction. They contextualize these findings using intersectionality informed research that posits there is a negative influence of gendered racism on

how Black women's physical appearances are evaluated (Capodilupo & Kim, 2014; Lewis & Neville, 2015; Parker et al., 2022).

Additionally, Beccia et al. (2019) analyzed risk for disordered eating behaviors (i.e., purging, fasting, diet pill use, or any disordered eating behavior) among a large sample (N = 11, 514) of racially/ethnically diverse adolescent boys and girls at the intersection of race and gender. Results showed higher disordered eating among those with marginalized identities compared to White boys. Latina girls had excess risk of any disordered eating and purging and were the only group in the study for whom risk was related to the interaction of their gender and race (Beccia et al., 2019). Furthermore, in the first ED study to examine prevalence of ED among Multiracial people, Burke et al. (2021) found that Multiracial groups identifying as Black and Latina, Black and Asian, Black and White, or Native American/American Indian and Latina cisgender women reported greater prevalence of ED pathology than their monoracial cisgender women counterparts (e.g., those identifying as singularly Black, White, Latina, or Native American/American Indian cisgender women). Multiracial groups identifying as Middle Eastern American and White, Asian American and White, or Asian and Native Hawaiian/Pacific Islander cisgender women reported lower prevalence of ED pathology than their monoracial cisgender women counter parts (e.g., those identifying as singularly Middle Eastern American, White, Asian American, or Native Hawaiian/Pacific Islander cisgender women; Burke et al., 2021). Though further research is needed to explicate why these groups reported risk in these ways, researchers theorize that these findings reflect intersectionality theory. That is, the risks associated with certain racial/ethnic identities occur differently when the identities are combined (Burke et al., 2021). Beccia et al. (2021) looked at the heterogeneity within gender with regard to gender identity, gender expression, sexual orientation, and weight status as risk factors to

disordered eating pathology among a majority (93.2%) White sample of young adults. They used an intersectional multilevel analysis of individual heterogeneity and discriminatory accuracy (MAIHDA), an advanced quantitative methodology used for testing models that hypothesize the impact of intersectionality in a sample. Results indicated that there is a significant intersectionality between the four identities, such that the predicted prevalence of ED pathology was disproportionately higher for sexual minority, gender nonconforming, and/or larger bodied girls/women.

Racial/ethnic minority women and ED

Irrespective of the use of intersectionality as a theoretical foundation, ED research on racial/ethnic minority women has also increased in response to greater attention to racial/ethnic diversity in the ED milieu (Gilbert, 2003). There has been some research suggesting racial identity serves as a protective factor against ED for racial/ethnic minority women and girls due to lower reporting of ED behaviors in these populations compared to White women (e.g., Chao et al., 2008; Neumark-Sztainer et al., 2002). While it is important to attend to racial identity as a potential moderator for mitigating ED risk, the notion that it is solely protective has been challenged by emerging research on distinct ED experiences for racial/ethnic minority women (Rodgers at al., 2018).

For example, several studies indicate that racial/ethnic minority women use food to cope with racism, classism, sexism, and other forms of oppression that predict ED (Lovejoy, 2001; Pate et al., 1992; Rodgers et al., 2018; Talleyrand, 2012). Oppression as a risk factor has been said to occur via acculturative stress and assimilation to the White patriarchal capitalist dominant culture that embraces leanness, control, and stoicism as signs of power (Lovejoy, 2001). Low help-seeking and high stigma are also reported across racial/ethnic minority groups (Becker et

al., 2010; Udo & Grilo, 2022). When considering each racial/ethnic minority group separately, presented alphabetically for the remainder of the paper, research on Asian American women and ED has reported mixed findings, perhaps due to lack of reports of subethnic group nuances, BMI, and satisfaction with ethnic features (Talleyrand, 2012). While some research states that Asian American women have the highest rates of ED across racial groups (Rodgers et al., 2018), other research found body dissatisfaction, weight concern, restricting, and bingeing to be reported at similar or lower levels to White samples (Cummins et al., 2005). However, body dissatisfaction of specific body parts (e.g., eyes and face) rather than body size has been reported more among Asian American groups than White groups, perhaps due to normal BMI ranges reported among Asian American women, as well as more bingeing and bulimic behaviors compared to White women (Talleyrand, 2012). Research that has sought to expand upon these findings often point toward objectification through stereotypical messages about Asian American women looking "exotic" and intergenerational conflict with peers and family as compounding ED for Asian American women (Javier & Belgrave, 2019; Smart et al., 2011).

Research specifically on Black women suggests Black women are generally less concerned with the thin ideal and dieting than White women, perhaps as a way to combat oppressive dominant cultural messages (Lovejoy, 2001). However, Black women have been found to engage in equally dangerous bulimic and binge eating behaviors at similar or higher prevalence (Goode et al., 2020). There are also mixed findings on Black women's body dissatisfaction and weight stigma, both known predictors of ED. Some reports say Black women with high BMI who are enculturated to Black culture have high levels of body dissatisfaction (Awad et al., 2020). Other reports have found low levels of body dissatisfaction and ED behaviors among Black women with high BMI, implying there may be a protective element to

Black women's racial identity (Himmelstein et al., 2017). Binge-eating in Black women, the most common ED among Black women, has been speculated to be a coping mechanism for gendered racism, negative emotions, stress, sexual and physical abuse, and trauma (Goode et al., 2018; Goode et al., 2020; Talleyrand, 2012), and is typically referred to as "stress eating" or "emotional eating" rather than disordered eating (Talleyrand, 2017). Clinical trials research for culturally informed treatments for Black women patients are also being found to be feasible and efficacious (e.g., Goode et al., 2018).

Research on ED among Latinas has produced a range of unique outcomes, perhaps due to the heterogeneity of cultural identities within the group that researchers cannot/do not always parse out. Some research suggests there are more similarities than differences between non-Latina and Latina women/girls' risk factors, prevalence, and treatment outcomes (Cachelin et al., 2014; Perez et al., 2016; Rodgers et al., 2018). Research has also identified conflicts among Latinas between the thin ideal and curvy ideal that is commonly reported as differentiating Black women's weight and shape concerns from White women's, suggesting Latinas may have competing and conflicting cultural forces in their purview (Franko et al., 2012). Literature overwhelmingly points toward the impact of family on ED, especially immigration/generational experiences affecting acculturation to White culture, family food practices that could lead to bingeing, and the positive impact of including family in treatment for adolescents (Perez et al., 2016; Talleyrand, 2012). Furthermore, there is reportedly high prevalence of bulimia nervosa and binge eating disorder and lower prevalence of anorexia nervosa among Latinas (Rodgers et al., 2018) as well as higher BMI (Franko et al., 2012) and low help-seeking for ED (Cachelin et al., 2014).

With regard to other groups of racial/ethnic minority with whom there is even more scant research, limited ED research has been found with Middle Eastern American women, perhaps due to their typically being grouped under White racial identity in the U.S. (Rodgers et al., 2018). However, Burke et al.'s (2021) study on Multiracial individuals reported a prevalence of ED pathology at 37.6% in a large (n = 1,067) sample of Middle Eastern American monoracial women. Regarding Multiracial women, Burke and colleagues (2021) study also reported that those identifying with a Multiracial identity of Native American/American Indian and Latina reported the highest prevalence of ED pathology across all Multiracial and monoracial groups measured. Again, this study is the only study to date that has focused on ED and Multiracial people as a unique racial/ethnic minority group, so there is not much else to report. Analogously, research with Native American/American Indian women also points toward acculturative stress associated with living away from one's reservation, and the use of potentially harmful weight-loss methods among this group (Pate et al., 1992).

Why review intersectionality theory in ED research?

While this body of work is innovative and meaningful, continuous review of the use of intersectionality theory in recent works on racial/ethnic minority women is still warranted even as we appropriately expand research and treatment to include people with other marginalized identities. Prevalence of lifetime ED consistently remains highest among women (Qian et al., 2021). There is increasing potential for diverse clientele after changes to the DSM-V adjusted diagnostic criteria to better represent ED that are typically observed in racial/ethnic minority women (e.g., BED; American Psychiatric Association, 2013; Halbeisen et al., 2022). Indeed, there are reports of increasing treatment seeking among racial/ethnic minority women compared to White women (Acle et al., 2021) while few ED treatments are founded upon meeting

marginalized clients' needs, though there are some exceptions (e.g., Goode et al., 2018; Reyes-Rodriguez, 2016). Given these realities, it would be pertinent to the ED field to know if researchers have taken the opportunity to utilize intersectionality theory in samples from which the theory was created (e.g., racial/ethnic minority women). Furthermore, some of the research that does utilize intersectionality theory appear to be looking at prevalence and incidence rates of ED, contrasting one intersectional group's ED-related outcomes to that of another group, or attempting to retest findings from White samples with racially/ethnically diverse samples. There is limited research that uses intersectionality theory that asks unique questions exploring the depth or mechanisms of how intersectionality is affecting ED clients who hold intersectional identities. Additionality, there is a demand for research employing intersectionality theory to do so responsibly. Indeed, Moradi and Grzanka (2017) and Shin et al. (2017) stipulate that intersectionality theory used in research ought not be used "just because." Often researchers will study marginalized groups by using their identities as proxies for their oppression without explicitly stating that systemic barriers are the reason these groups are at risk (Simone et al., 2022). Furthermore, researchers may study groups that have intersecting identities and discuss the theory peripherally without being explicit about who established the theory. Moradi and Grzanka (2017) write:

> "Crediting this long and rich history and acknowledging the centrality of the call for coalition politics (Cole & Luna, 2010) are critical to responsible stewardship of intersectionality. However, citations of this work are too often absent or cursory in publications that mention or use intersectionality (in counseling psychology and beyond). Citations are an important mechanism through which this scholarship is credited and honored or erased. Authors should practice and journal editors and reviewers should

> insist on substantive integration and crediting of intersectionality scholarship." (Moradi & Grzanka, 2017, p. 502).

Shin and colleagues (2017) propose designating such works as either weak, strong, or transformative. Weak scholarship "fails to provide an interrogation of larger systems of inequality" (Shin et al., 2017; p. 460). Strong intersectionality "foregrounds relationships and outcomes among intersecting social categories and critiques interlocking forms of power and privilege (Shin et al., 2017; p. 460). Transformative scholarship "analyzes the relationships between multiple social identities and structural inequality and explicitly calls for social justice action aimed at dismantling systems of oppression (Shin et al., 2017; p. 460). The ED field also needs to align with robust criteria if integrating intersectionality theory is to be a priority. Accordingly, to inform clinical practice and research to better meet the needs of ED clients and patients, there is a need to analyze the content of the literature on within-groups research foci and to assess the quality of the use of intersectionality theory with those groups.

The Present Study

As such, the current paper uses an intersectional lens to review and report on the amount of novel ED research that has been conducted on racial/ethnic minority women samples exclusively (e.g., not in comparison to other racial/ethnic samples of women), as well as the themes present in the literature with these groups based on the empirical approach and findings of that research. This review defined an article as novel if it was published in the last five years (2016 – 2021) to account for use of the DSM-V which had expansions of diagnostic criteria that consequently diversified who could be diagnosed with ED (Halbeisen et al., 2022). Additionally, given that the uniqueness of that racial/ethnic and gender intersection is the foundation of the

theory, this review explores whether more recent research on exclusively racial/ethnic minority women apply intersectionality theory. The guiding questions for this review are as follows:

1. How much novel literature has been conducted on ED among racial/ethnic minority women exclusively?
2. What is the summary of ED research on Asian American women, Black women, and Latinas?
    a. How are researchers approaching ED in each racial/ethnic minority group of women?
    b. What is known about ED in each racial/ethnic minority group of women?
3. Does recent research on ED among racial/ethnic minority women use an intersectional frame? If so, is it weak, strong, or transformative?

Question 1 is important to ask given our assertion that much of the research conducted on ED is either on majority White samples or comparing between-group differences of racial/ethnic minority women. Reviewing the current number of studies looking at within-groups trends would give a clearer picture of that assertion. This is assessed by comparing the final datasets of records found and comparing those numbers to the total number of articles found that focus on ED from 2016-2021. Because of researchers' tendency to focus more on their sample's identities and not on the structures in which their identities exist, Question 2 is twofold and reviews not only the study outcomes but also the a priori framing of the inquiries. Question 2a informs our understanding of how researchers, the people crafting the eventual narrative about their samples, are conceptualizing the ED and groups. In other words, the answer to Question 2a gives us a sense of what researchers assume to be relevant to ED experiences in each racial/ethnic minority group. Open coding and categorizing the academic discipline, research design, sample

characteristics, DSM version referenced, average BMI reported if it was reported at all, additional intersectional identities, and abstracting themes from the study variables/research questions informs our understanding of researchers' foundation that shape or limit their study of the racial/ethnic minority group. Question 2b is important to ask for readers to be current on the state of ED pathology in each racial/ethnic minority group. Answering Question 2b by open coding, categorizing, and abstracting themes of the results and discussion from each article consolidates outcomes of case studies, clinical trials, mixed method studies, quantitative studies, and qualitative studies in each racial/ethnic minority group. Like Question 2a, Question 3 focuses on researchers' assumptions about how to conceptualize ED in each racial/ethnic minority group, but with specific regard to intersectionality theory. Question 3 is important to ask because it assessed if ED researchers intentionally use intersectionality theory in their framing of ED in each racial/ethnic minority group. Answering Question 3 involves searching for existing criteria needed for responsible use of intersectionality theory based on Moradi and Grzanka (2017) and Shin et al., (2017) works and supports the calls to action in the ED field.

This study utilized qualitative content analysis to analyze empirical research articles that have focused on ED in distinct racial/ethnic minority groups of women (Elo & Kyngas, 2008). Content analysis methodology aligns well with the goals of this study because it allows us to systematically codify research on racial/ethnic minority women with ED into categories and themes, thus making inferences about researcher's intentions and the meaning of the data (Elo & Kyngas, 2008). This study utilizes both inductive and deductive content analysis to answer Questions 1, 2, and 3. Inductive content analysis involves allowing categories to emerge from the data, starting from specific instances of content related to the research question and moving to more general, overarching statements about what is observed (Elo & Kyngas, 2008). Deductive

content analysis involves referring to an existing theory to identify specific instances of that theory in the data (Elo & Kyngas, 2008). We used inductive content analysis to identify themes that emerge from the data and answer Questions 2a and 2b and deductive content analysis was used to review articles for the application of intersectionality theory, answering Question 3.

Method

A team of three researchers were involved in coding the articles. Two researchers identified and screened articles for inclusion in the current review in the spring of 2022 and a third researcher joined for the open coding, categorization, and abstraction process in summer 2022. The first author, Coder One, is a fifth-year student in an APA-accredited Counseling Psychology doctoral program. Coder One identifies as a 27-year-old, Black, heterosexual cis-woman with no current disabilities. Coder Two is a graduate student in Clinical Rehabilitation Counseling. Coder Two identifies as a 47-year-old, White, cis-woman heterosexual female with no current disabilities. Coder Three is also a counseling psychology doctoral student. Coder Three identifies as a 29-year-old, White, queer, cis-woman with no current disabilities. Before data coding, the team discussed their levels of experience to the coding process and ED literature. We observed that we may be partial towards weight-neutral language and social justice paradigms based on our professional experiences and interests in multiculturalism in our research and clinical orientations. We relied on specific coding instructions in our coding manual and used direct lines from the articles for initial codes to avoid biased interpretation or contextualization of the content (Elo & Kyngas, 2008).

Coder One and Coder Two conducted searches in PsycINFO by racial/ethnic minority group given the aim of assessing within-groups data. PsycINFO was selected because the database includes the variety of publications and fields of study relevant to our focus on

psychosocial elements of ED. Search terms were determined based on the commonly reported racial/ethnic minority identities present in the U.S. at the time of the search. As such, we used the following terms to conduct the search: Asian American women AND eating disorders; Black women OR African American women AND eating disorders; Latina women OR Hispanic women OR Latinas AND eating disorders; Arab OR Arabs OR Arabic OR middle east OR middle eastern women AND eating disorders; mixed race OR biracial OR multiracial OR multiethnic women AND eating disorders; and native American OR American Indian or indigenous or native tribes or native women AND eating disorders.

Inclusion criteria

Articles were only included if they were published between 2016-2021. Our rationale for limiting publication year to 2016-2021 was to increase the likelihood that the literature utilized DSM-V diagnostic criteria and thus had a more modern and diversified conceptualization of ED (Halbeisen et al., 2022). Coders chose to exclude systematic literature reviews since much of the literature they reviewed were published prior to 2016. Articles were included only if they focused on women or girls from that specific racial/ethnic minority group and did not include or compare other racial/ethnic minority groups. Limiting our sample criteria to only focus on women and girls and not have other ethnic groups studied aligns with our study aims of assessing within-group trends and avoid the tendency to constantly compare groups. Articles that included transgender women were included in the dataset. However, the two studies that reported transgender women participants in their sample were ultimately excluded because they compared several racial/ethnic minority groups. Additionally, articles were included if they were focused on ED or disordered eating (i.e., not focused on samples with diabetes or obesity outside of an ED context). Excluding papers that focus on eating-related ailments, but not ED, ensured that our

analysis focused on ED as opposed to other illnesses. Finally, only articles that were written in English and inclusive of U.S. samples were included. The decision to only include articles written in English was made based on our lack of access to translating tools. The decision to focus on U.S. samples was based on our study focus of within-group themes for racial/ethnic minorities and other identities that are assumed to be heavily influenced by sociopolitical context. Because of the inevitable variability between definitions and experiences across nations, especially with regard to race/ethnicity, we restricted our sample to the U.S. for the current study.

Screening

Coder One and Coder Two screened the titles and abstracts to determine their inclusion in the study by uploading references from PsycINFO into the citation-screening software, *abstrakr* (Wallace et al., 2012). If the appropriateness of the article was not clear based on the title or abstract alone, full articles were obtained and reviewed to determine if the publication would be included or excluded. A total of 64 records were found when searching for Asian American women with ED (see Figure 1.2). 16 were excluded for being duplicate records, book chapters, dissertations, or theoretical papers, and another 33 were excluded for being published outside of 2016-2021. Fifteen articles were screened. Seven papers were removed because they compared racial/ethnic groups (e.g., compared Asian American women to White women). One article was deemed irrelevant for focusing on other health conditions not including ED and one was removed for being a literature review. Additionally, one article was excluded for being a duplicate study that was not excluded earlier, and one was removed for having a non-U.S. sample. Only four articles on Asian American women with ED met inclusion criteria.

A total of 420 records were found when searching for Black women with ED (see Figure 1.3). One hundred twenty-four were excluded for being duplicate records, book chapters, dissertations, or theoretical papers, and another 243 were excluded for being published outside of the range of 2016-2021. Fifty-three articles were further screened. One paper was excluded for including men or boys and 28 were excluded because they compared racial/ethnic groups (e.g., compared Black women to White women). Eight articles were excluded because they focused on other health conditions not including ED, and one was excluded for being a literature review. Thus, only 16 articles on Black women with ED met inclusion criteria.

A total of 404 records were found when searching for Latinas with ED (see Figure 1.4). Eighty were excluded for being duplicate records, book chapters, dissertations, or theoretical papers, and another 222 were excluded for being published outside of 2016-2021. One hundred two articles were screened. Forty-five papers were excluded for including men or boys and 34 were removed because they compared racial/ethnic groups (e.g., compared Latinas to White women). One article was deemed irrelevant for focusing on other health conditions not including ED and one was excluded for being a literature review. Additionally, two papers were excluded for not being written in English, one was removed for focusing on a non-U.S. sample, and one was removed for being a theoretical paper that was not excluded by automation tools. Only 17 articles on Latinas with ED met inclusion criteria.

A total of 134 records were found when searching for Arab or Arabs or Arabic or middle east or middle eastern women with ED (see Figure 1.5). Nine were excluded for being duplicate records, book chapters, dissertations, or theoretical papers, and another 71 were excluded for being published outside of 2016-2021. Fifty-four articles were screened. Six papers were removed for including men or boys and six were excluded because they compared multiple

racial/ethnic groups to each other. Thirty-seven papers were excluded for focusing on non-U.S. samples. Four articles were excluded because they focused on other health conditions, not including ED, and one was removed for not being written in English, resulting in zero eligible articles for inclusion in the content analysis.

A total of 46 records were found when searching for mixed race or biracial or multiracial or multiethnic women with ED (see Figure 1.6). Eight were excluded for being duplicate records, book chapters, dissertations, or theoretical papers, and another 26 were excluded for being published outside of 2016-2021. Twelve articles were screened. One paper was removed for including men or boys and 11 were excluded because they compared racial/ethnic groups (e.g., compared Multiracial women to monoracial women). Thus, zero articles remained eligible for analysis with this group.

A total of 144 records were found when searching for Native American or American Indian or indigenous or native tribes or native women with ED (see Figure 1.7). Thirty were excluded for being duplicate records, book chapters, dissertations, or theoretical papers, and another 90 were excluded for being published outside of 2016-2021. Twenty-four articles were screened. Seven papers were removed for including men or boys and 12 were excluded because they compared racial/ethnic groups (e.g., compared Native American/American Indian women to White women and Latinas). One article was deemed irrelevant for focusing on other health conditions not including ED and four were removed for having non-U.S. samples. Zero articles remained.

Data Analysis

Data were organized first using open coding (Elo & Kyngas, 2008) by a team of three coders who open coded all 36 articles for content related to the research questions. Coding was

completed using a Qualtrics coding form developed by the first author. This form, found in Appendix A, was developed using both an inductive and deductive approach. Selection of the items to be included in the form was guided by the current study's guiding questions. Additionally, items were selected based on ED research-specific content (e.g., coding if an article measured BMI, coding overweight/obesity as an intersectional identity). These specific items were included because they reflect the tensions in the ED field about whether weight should be measured as an indicator of illness severity or as. an aspect of one's intersectionality due to pervasive weight stigma that affects overweight/obese people (American Psychiatric Association, 2000, 2013; Hill et al., 2021). As such, BMI is coded as Yes/No based on whether or not an article measured it; if it did, coders wrote what was reported. Overweight/obesity is included under the dis/ability intersectional identity option on the form given that health status and dis/ability as intersectional identities are often measured as being conceptually similar (Jackson-Best & Edwards, 2018; World Health Organization, 2021). The initial form was tested for clarity and comprehensiveness using five articles from the dataset and revised by the coding team until consensus was met about the organization of the form.

To answer Question 1, we divided each of the total numbers of articles found on Asian American woman (n = 4), Black women (n = 15), and Latinas (n = 17) by the total number of ED articles found that were published between 2016-2021 (n = 10,317). To answer Question 2a, we engaged in open coding, the first stage of inductive coding which involves reviewing and recording basic units of the content (Elo & Kyngas, 2008). We open coded for: academic discipline (e.g., psychology, medicine), research design (e.g., quantitative, case study), sample characteristics (e.g., age, sample size, ethnicities reported), DSM referenced (e.g., IV, V, if one was referenced at all), average BMI reported (if it was reported at all), additional intersectional

identities of focus (e.g., disability, socioeconomic status), and study variables/research questions (e.g., predictor variables, interview questions, case study foci, etc.). To answer Question 2b, we coded for study results by reporting the outcomes of each study in a text box.

Once open coding was completed, coders downloaded the final survey results and divided them by racial/ethnic minority group into separate Excel sheets. Some discrepancies in codes were observed, mostly due to varying levels of research design knowledge (e.g., incorrectly coding a variable as a mediator when it was a moderator). For those discrepancies, coders decided to accept the code that two of the three coders, who also had more advanced research methods knowledge, correctly identified. Some discrepancies were observed in how disciplines were coded. Coders decided to report articles as being "interdisciplinary" if there was more than one discipline coded. Other discrepancies that emerged were discussed and identified as either errors in typing or missed content (e.g., forgetting to code obesity as an additional intersectional identity).

Following Elo and Kyngas (2008) best practices for qualitative content analysis, coders then engaged in categorization by grouping the content gathered during open coding by recurring instances found within each racial/ethnic minority group to answer Question 2a and 2b. This involved looking at how each variable of interest was coded by each coder by racial/ethnic minority group to answer Question 2a. Coders discussed as a group if there were patterns in the academic discipline, research design, sample characteristics, DSM referenced, average BMI reported if it was reported at all, additional intersectional identities of focus, and study variables/research questions within each racial/ethnic minority group. We determined if study variables and research questions measured within each racial/ethnic minority group could be combined into larger categories based on conceptual similarity/dissimilarity or high/low

frequency (Elo & Kyngas, 2008). For example, high BMI, larger body ideals, and binge eating episodes are similarly marked by being above average, and so were categorized under the same main category. Similarly, to answer Question 2b coders combined the results of each article into categories by assessing for similar outcomes as well as unique outcomes between the studies in each racial/ethnic minority group. For example, studies that highlighted the importance of culturally adapted therapy were grouped together separately from studies that reported treatment as usual being sufficient. Coders then engaged in the abstraction process, where categories and subcategories of the content are finalized and named using content-specific words (Elo & Kyngas, 2008). In answering Question 2a, coders kept most of the groupings found in the categorization phase as the final categories with self-explanatory content-derived names. For example, "Comorbidity between health status (specifically obesity and overweight) and ED for Black women" was used to describe that several articles on Black women with ED assumed comorbidity between ED and obesity/overweight. One category was further scaffolded to have subcategories (see Table 3). In answering Question 2b, coders used longer phrases or full sentences to label the final themes of results in order to adequately describe the themes in the ED pathology, treatment outcomes, etc. found. Please be aware that some articles fell into multiple themes. For example, a study may have measured body image variables and focused on acculturation-related stressors and is therefore counted in both themes. Therefore, the number of articles listed across themes may be calculated as greater than the total number of articles that met inclusion criteria for this analysis.

To assess a study's use of intersectionality (Question 3), we coded for whether each study explicitly referenced intersectionality theory (e.g., yes, no, used the term, other), and the strength (e.g., weak, strong, transformative) of intersectionality theory if it was used in the study. Use of

intersectionality theory was first determined by assessing whether studies cite Kimberlé Crenshaw or Patricia Hill Collin's works in addition to using the terminology explicitly. This decision is based on Moradi and Grzanka's (2017) call for research to be explicit in naming founding intersectional theorists and literature given lackadaisical applications of the theory and term, and both Collins' and Crenshaw's works are considered pioneering in the field of intersectionality. Coders created a structured categorization matrix based on that directive (see Appendix A) to decide if content in each article corresponded with the responsible use of intersectionality theory (Elo & Kyngas, 2008). If the article used intersectionality terminology and cited either author's works on intersectionality, it was coded as "Yes." For articles coded "Yes," coders then determined whether authors did so in a manner that was weak, strong, or transformative using guidelines set by Shin et al., (2017), referenced in the structured categorization matrix (Appendix A). If a study did not name intersectionality AND cite Crenshaw or Collins, coders could code the article as "No" for not using the theory outright, as "Used the term" for peripherally using the terminology of intersectionality (e.g., saying "intersections of race and gender" or "intersecting identities" without citing Crenshaw or Collins directly), or as "Other" if a coder was unsure and needed to discuss further. During the meeting after initial coding was completed, coders also discussed discrepancies in the coding of intersectionality theory and came to consensus about final categorization. There were some (n = 5) discrepancies about how articles were coded for use of intersectionality theory. Some discrepancies again were a result of missing when an article used the terminology or referenced Crenshaw or Collins. Coders coded four articles inconsistently for referencing a secondary source that did have intersectionality in its title. One article was coded as strong for referencing Collins' work but as "No" by two other coders for not including any mention of intersectionality

theory. Coders decided to condense articles coded as "Used the term" and Other" into "Used the term," including the one article coded as "No" and "Strong," to account for such articles in this analysis since it is still informative to know that the theory is being relied upon, albeit by proxy of the authors or terminology in isolation. Descriptive data of the open coding results is reported in Table 1.

Results

Question 1: How much novel literature exists on ED among racial/ethnic minority women exclusively?

When searching for ED research published between 2016-2021, 10,317 articles were found (see Figure 1.1). Based on the records that were found using our inclusion criteria, .0004%, .002%, and .002% and of all ED-related research published between 2016-2021 focused on samples of Asian American, Black, and Latina samples of women, respectively. Thus, cumulatively, less than one-half of one percent of articles available focused on a single sample of Asian American women, Black women, or Latinas alone.

Question 2: What is the summary of ED research on Asian American women, Black women, and Latinas?

Asian American women with ED

Question 2a: How are researchers approaching ED in each racial/ethnic minority group of women? Of the articles focused on Asian American women, half (n = 2) were from the psychology discipline and half (n = 2) were interdisciplinary. Many (n = 3) employed a quantitative design**,** and one employed a qualitative design **–** interestingly, three out of four studies employed process designs (e.g., mediation and moderation). All articles (n = 4) used adult college samples. All of the articles (n = 4) reported participants' ethnicity; ethnicities

reported include Filipino, Chinese, Japanese, Vietnamese, Korean, Other Asian American, South Asian, Thai, Taiwanese, Cambodian, Hawaiian/ Pacific Islander, Hmong, Bangladeshi, Malaysian, Pakistani, Nepali, and Laotian. Many articles (*n* = 3) did not report which DSM iteration was used to define the disordered eating behaviors being measured, while one reported reference to the DSM-V. Many of the studies on Asian American women (*n* = 3) measured BMI and those samples had BMIs in normal ranges. Two out of four of the studies also focused on acculturation status as an intersecting identity. These results are summarized in Table 1.

One theme that was garnered from the variables and research questions in this group of articles, stated in Table 2, is that researchers inquired about experiences of racism leading to ED and body image issues (*n* = 2). Another theme was the focus on acculturation-specific pressures and image related variables (i.e., body objectification) (*n* = 2). Additionally, none of the papers (*n* = 4) discussed physical health conditions.

Question 2b: What is known about ED in each racial/ethnic minority group of women? The overall theme of the results of these studies (*n* = 4) is that there are processes through which a thin ideal among Asian American women interacts with gendered-racial discrimination leading to ED pathology. This theme is also reflected in Table 2.

Black women with ED

Question 2a: How are researchers approaching ED in each racial/ethnic minority group of women? Of the 15 articles focused on Black women, many (*n* =13) were from the psychology discipline, one was interdisciplinary, and one was from medicine. Some (*n* =4) employed a qualitative design, though many (*n* = 7) employed a quantitative design. Few (*n* =2) were mixed methods, one was a case study, and one was clinical trial. All of the studies on Black women with ED (*n* = 15) studied adult samples. Many (*n* = 7) studied community-based samples,

while others (n = 6) studied college samples and clinical samples (n = 3). None of the studies in this group reported ethnicities other than African American. About half (n = 8) of the articles did not report which iteration of the DSM was used to define the disordered eating behavior being measured. One referred to DSM-IV and six referred to DSM-V. Few studies (n = 3) failed to report BMI; those that did report BMI (n = 12) reported that their sample's BMI was within overweight or obese ranges. One case reported **C**lass III obesity, formerly known as morbidly obese. Other intersectional identities of focus in addition to racial/ethnic identity and gender were health conditions (specifically overweight and obesity), religion, and sexual orientation.

We categorized and abstracted the variables and research questions tested in this group of studies into themes of the researchers' intentions, summarized in Table 3. The first theme identified was that researchers focused on larger bodies and overconsumption in their approach to studying ED in Black women. Subthemes under this theme are that articles specifically measured BE (n = 6), specifically measured obesity and overweight (n = 10), and specifically spoke about Black cultural ideals of body shape (n = 2). Another theme found in the researchers' approach to studying ED in Black women was a focus on traditionally measured ED factors (i.e., namely maternal relationship and objectifying body image; n = 3). The absence of racism predicting ED was another theme of the variables (n = 14). Finally, lack of ethnic diversity reported was a theme among all articles (n = 15).

Question 2b: What is known about ED in each racial/ethnic minority group of women? The first theme garnered from results of articles on Black women was that there are factors that are unique to Black women's cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED (n = 6). The second theme is that measures and treatments that integrate culture-informed definitions and views elucidate ED experiences

that are unique to Black women (*n* = 4). Lastly, we found a theme of the comorbidity between health status (specifically obesity and overweight) and ED for Black women (*n* = 6). These themes are also summarized in Table 3.

Latinas with ED

Question 2a: How are researchers approaching ED in each racial/ethnic minority group of women? Of the total articles focused on Latinas (*n* =17), many (*n* =12) were in the psychology discipline, while two were in medicine, two were in nursing, and one was in public health. Some (*n* = 6) articles employed were case study designs, some (*n* = 7) used quantitative design, few (*n* = 3) used qualitative design, and one was a clinical trial. A few (*n* = 2) of the articles on Latinas focused on adolescent samples, while many (*n* =15) were adult samples. Some of the studies (*n* = 7) studied clinical samples, while others (*n* = 8) studied community samples and college samples (*n* = 5). Of the samples that reported more specific ethnic identities than Hispanic or Latina (*n* = 9), many (*n* = 5) reported their sample was Mexican American. Three articles referred to DSM-IV and seven referred to DSM-V. Three articles did not report which iteration of the DSM was used and four, interestingly, referred to both the DSM-IV and the DSM-V. Many (*n* = 13) studies reported BMI; BMI across studies ranged from normal, over-weight, or obese. Many studies (*n* = 14) focused on other intersectional identities as well as racial/ethnic identity and gender (i.e., acculturation status, age, obesity and overweight).

The variables of interest and research question in articles on Latinas pointed toward many themes, summarized in Table 4. One theme found was measuring acculturation-specific pressures (*n* = 3). Additionally, purging and overconsumption (e.g., pica or binge eating) behaviors were of focus (*n* = 12). Next, many studies focused on Mexican-origin women (*n* = 5). Furthermore, articles focused on individual and internal differences more than racism or sexism

variables interacting with other variables (n = 14). Lastly, there were also many family/household-orientated variables and characteristics, specifically food insecurity, cultural food practices, and family-oriented treatment (n = 3).

Question 2b: What is known about ED in each racial/ethnic minority group of women? Results of the research on Latinas are further summarized in Table 4 and point to there being little to no unique racial/ethnic standpoints in treatment – treatment as usual was found to be efficacious in studies that did not employ culturally-adapted measures and interventions (n = 8). For studies that did employ culturally adapted treatments and measures, it was found that including family- oriented values, discussions about cultural food, and acculturative stress made the interventions more culturally informed (n = 8). Several studies also included discussions about how overeating may be a culturally normal and may predict binge eating (n = 5). Additionally, pica may be worth further exploration among Latinas (n = 2).

Question 3: Does novel research on ED among racial/ethnic minority women use an intersectional frame? If so, is it weak, strong, or transformative?

Only two papers in the dataset were coded as "Yes" for using intersectionality theory because they used the terminology and cited Crenshaw or Collins' work, reflected in Table 1. One study by Le and colleagues (2020) was focused on Asian American women with ED and was coded as being transformative. This paper aligned with Shin et al. (2017) definition of transformative scholarship by both analyzing the social identities by structural inequality interaction and explicitly calling for action aimed at dismantling systems that caused that interaction. The authors explained intersectionality theory citing Kimberlé Crenshaw's (1991) work, highlighted the importance of studying Asian American women ED experiences in the context of systemic issues, and offered specific ways to systemically dismantle the oppression

Asian American women face (e.g., educating potential perpetrators of microaggressions, harsher institutional punishments for microaggression; Le et al., 2020). The other study that was coded as using intersectionality theory was by Davies and colleagues (2021). This study focused on Black women and was coded as strong. This paper cited Patricia Hill Collins' (2009) work on the negative impact of their hypersexualized stereotype of Black women and used it to contextualize their hypothesis that elements of body objectification predict Black women's ED pathology, which their findings supported (Davies et al., 2021).

Coders also noted articles that peripherally used the term intersectionality and related terminology or cited secondary sources on intersectionality. At total of nine papers used the term, with two papers focused on Asian American women, five papers focused on Black women, and two papers focused on Latinas coded as such. Examples of how these papers used intersectionality terminology but did not cite Crenshaw or Collins include urging future research to "examine the intersection of racism and sexism" affecting Asian American women (Cheng et al., 2017, p. 188). Some papers referenced secondary sources that focus on intersectionality; indeed, Capodilupo and Kim's (2014) paper, "Gender and race matter: The importance of considering intersections in Black women's body image" was referenced often in papers on Black women with ED (e.g., Salami et al., 2019; Talleyrand et al., 2017; Wilfred, 2021). Other papers call for researchers to address "how intersectionality can be used to highlight strengths as well as address power and privilege in the therapy room" to help contextualize cases like the author's adolescent Latina with ED, depression, and self-harm (Binkley & Koslofsky, 2017; p. 37).

Discussion

The current review used an intersectional lens to identify the amount of research that has been conducted on exclusively racial/ethnic minority women samples between the years 2016 and 2021 (Question 1), as well as what themes emerged about these groups based on their empirical approach and findings (Questions 2a and 2b). This review also explored whether novel research on exclusively racial/ethnic minority women samples apply intersectionality theory (Crenshaw's 1991; 2006) given the centering racial/ethnic minority women in the papers (Question 3).

The results of the content analysis align with existing research on ED within each racial/ethnic minority group. Regarding Question 1, such low percentages of novel research focused on each racial/ethnic minority group of women confirms assertions that ED research tends not to take a within-group approach to understanding the experiences of racial/ethnic minority women. The percentages identified were even lower than expected given the assumptions that the ED field would diversify along with the changes to the DSM-V. However, calls for intersectionality theory to be used in ED have only risen in recent years (e.g., Burke et al., 2020) so it is likely that there is work that is now being done in 2022 and onward on identities other than race, ethnicity, and gender (e.g., Beccia et al., 2022). Regarding Questions 2a and 2b, there was a connection between what has been found historically in each group and what was found within the current study's framework.

Asian American women

Results for the review of articles on Asian American women should be interpreted with caution given the small selection that fit our inclusion criteria. It is understandable that many of the articles that focused on Asian American women were from the psychology discipline given our search was conducted using the PsycINFO database. Because of this, it was also

understandable that many also employed a quantitative design, which is a popular methodology used in psychological research. With regard to the emphasis on quantitative and qualitative research, the focus in the articles on Asian women on processes (e.g., regression and grounded theory) is notable and also reflected in past literature that has utilized such methods to study mechanisms through which ED manifest in Asian American women (e.g., Ting et al., 2007; Yokoyama, 2013). It is also common in research with Asian American samples to report participants' ethnicity given the vast ethnic diversity within Asian American communities (Talleyrand, 2012). Interestingly, many articles did not report which DSM iteration was used to define the disordered eating behaviors being measured, though this is unsurprising since all articles utilized college samples as opposed to clinical samples. Also common in ED research is the tendency to measure BMI, which three of the four studies did, and BMI in normal ranges is also common in Asian American women samples (Talleyrand, 2012). Two out of the four of the studies also focused on acculturation status as an intersecting identity, which is also a common focal point of Asian American women's identity in research (Talleyrand, 2012).

The themes garnered on ED in Asian American women are also situated in existing research. Seeing that these studies focused on experiences of racism leading to ED and body image disturbances is reflective of existing literature that focus on social context and utilize social justice theories to frame ED in Asian American women (e.g., Ting et al., 2007; Yokoyama, 2013). The theme of the articles prioritizing acculturation-specific pressures and image related variables like self-objectification leading to ED is also situated in literature that found body dissatisfaction of eyes and face, experiences with racist stereotypes, weight concern, and restricting in Asian American samples (Cummins et al., 2005; Javier & Belgrave, 2019; Smart et al., 2011; Talleyrand, 2012). The theme of there being a lack of focus on physical health

comorbidities was intriguing. Because Asian American women tend to have BMI within normal range (Talleyrand, 2012), it is possible that researchers and clinicians focus more on ED-related health issues that they assume will present only at low and high ends of the index and thus do not worry about people in the normal BMI range.

Black women

Similarly to the articles on Asian women, results should be interpreted with caution given the small sample. Also, it was not surprising that many of the articles on Black women were from the psychology discipline and employed a quantitative design. Much of the research on Black women does report that they tend to be adult at the age of ED onset and when seeking treatment (Goode et al., 2020), which is reflected in the exclusively adult age and often community-based or college samples in this review. While clinical trials research for culturally adapted treatments for Black patients is increasing (e.g., Goode et al., 2018), it is notoriously difficult to recruit diverse samples for clinical trials research, so clinical samples were expected to be low in this study (Rodgers et al., 2019). Furthermore, U.S. based research on Black women often does not parse out ethnic identity beyond African American, which none of the studies reviewed in this dissertation did either, thus this finding was also expected. Only about half of the articles did not report which iteration of the DSM was used to define the disordered eating behavior being measured, which may be related to the low representation of clinical samples in this set of articles. However, it is notable that six referred to DSM-V. Because of the focus on binge-spectrum behavior measured in Black women samples, it is helpful to know that researchers used the iteration of the DSM that fully recognized binge eating disorder as a full-fledged ED. This can assist with filling gaps in the ED field about how syndromic binge spectrum behaviors are operating in Black women samples. Other findings from this review that

are reflected in other literature are that many studies report BMI and that those that did report BMI reported that their sample's BMI as within overweight or obese ranges. Indeed, the ED field has traditionally measured BMI as an indicator of health and the severity of patients' ED (American Psychiatric Association, 2000, 2013), and increasingly as an aspect of overweight/obese individuals' intersectionality due to weight stigma (Hill et al., 2021).

The themes found in the articles on Black women covered a wide range of experiences, which is expected given there is more research on Black women with ED compared to other racial/ethnic minority groups (Capodilupo & Forsyth, 2014). The theme of larger bodies and overconsumption in the articles on Black women has been represented across disciplines of Black women's bodies being large (Collins, 2002; Witt, 1994). Indeed, Black women who have ED are more likely to present with binge spectrum disorders than other disorders and are usually within the overweight and obese ranges (Goode et al., 2020). The theme that traditionally measured ED factors (i.e., namely maternal relationship and objectifying body image) were of some focus was also expected given the presence of objectification (Mitchell & Mazzeo, 2009) and maternal relationship issues (Lovejoy, 2001) as ED risk factors across groups. The theme of there being an absence of racism predicting ED was less anticipated given the extensive literature on racism predicting poor mental health outcomes for Black people in many other fields (Brown et al., 2000; Greer et al., 2009), and the documented impact of racism on Black women's ED specifically (Assari, 2018; Lovejoy, 2001). Perhaps it is coincidental that studies that fit our inclusion criteria of being published between 2016-2021 did not focus as much on racism-related variables because past research on ED among Black women did.

To this point, the focus on BMI/weight as a comorbid physical health variable and outcomes of studies was striking and may suggest that researchers are shifting from

conceptualizing gendered racism as Black women's main intersectional dilemma. There is debate in health and ED fields on the implications of defining overweight/obesity as needing intervention especially for Black women. Some posit that focusing on reducing overweight/obesity among Black women is indeed a social justice effort to correct physical health disparities correlated with high BMI (e.g., cardiovascular conditions and diabetes; Carr et al., 2022). Indeed, interventions are being developed to promote healthy weight loss and eating for Black women (Goode et al., 2018, 2020). Others posit that this focus further marginalizes Black women by blaming individuals, families, or cultural norms for Black women's poor health outcomes rather than blaming the stressful oppressive systems (Strings, 2019). There is also a concern that weight loss interventions are not without harm and pose risks for using disordered eating behaviors to achieve weight loss (Chen & Gonzales, 2022). Perhaps the focus on health comorbidities over gendered-racism variables in the dataset reflects the position of health equity even if they did not cite intersectionality theory. As a reminder, it was the coders decision to label overweight/obesity as an intersectional identity based on ED-research. The studies that were coded as measuring overweight/obesity as an intersectional identity often measured it as a health condition upon which they intervened. None of the articles on Black women with ED that focused on overweight/obesity fit the current study's criteria for adequate use of intersectionality theory. The other intersectional identities of focus in the review were religion and sexual orientation and were measured with greater regard to cultural context and marginalization, respectively, while overweight/obesity was seen as a health issue. It would be in researchers' best interest to discuss and critique experiences of discrimination related to weight if their intention is to study obesity/overweight as an intersectional identity. Furthermore, the themes that there are unique factors for Black women with ED that interact with ED and that

measures/treatments ought to integrate them to elucidate ED experiences are also well-supported (Goode et al., 2018; Mama et al., 2015).

Latinas

Results from the articles on Latinas should also be interpreted with caution given the small selection that fit our inclusion criteria. Like the articles on Black and Asian American women, many of the articles on Latinas were from the psychology discipline and many reported BMI. The range of study designs (case study, quantitative, qualitative, and clinical trial) and sample types (clinical, community, and college) was unique to this group. Only two of the articles on Latinas focused on adolescent samples, though this was more than was reflected in other groups. Perhaps this is related to the emphasis on family in this group such that seeking help for an adolescent with ED is an extension of the apparent value of family supportiveness in this sample of Latinas. It was expected that Mexican American ethnic identity would be heavily represented in the studies that did report ethnicity diversity given the large population of Mexican Americans in the U.S. (Funk & Lopez, 2022). Also unique to this set of articles was the range of DSM reporting. This was likely also related to the range of sample type and study designs such that the representation of clinical samples in clinical trials and case studies expectedly would discuss the DSM. BMI across studies ranged across normal, over-weight, and obese categories. This finding is situated in existing literature as well; indeed, research has identified both a thin ideal and a curvy ideal among Latinas (Franko et al., 2012) that would likely correlate with a wider range of BMI. Many studies focused on acculturation status, age, or obesity/overweight, which maps on to literature that points toward the impact of immigration/generational experiences affecting acculturation in a majority White culture (Rodgers et al., 2018), as well as higher BMI among Latinas (Franko et al., 2012).

Themes from the data on Latinas are also firmly grounded in existing research that suggests Latina clients tend to use binge/purge ED behaviors, value family-oriented treatment models, and are impacted by acculturative stress and biculturalism (Franko et al., 2012; Talleyrand, 2012). Research reports high prevalence of bulimia nervosa and binge eating disorder and lower prevalence of anorexia nervosa among Latinas, as well as higher BMI (Franko et al., 2012). Literature also points toward the impact of family on ED, immigration/generational experiences affecting acculturation, family food practices that could lead to bingeing, and the positive impact of including family in treatment for adolescents (Perez et al., 2016; Talleyrand, 2012). The theme that individual differences are of greater focus than contextual factors seemed similar to the dataset on Black women with ED, and also felt surprising. Prior research has discussed the gendered-racism Latinas face that impacts their body image and ED pathology (e.g., Franko et al., 2012; Valez et al., 2015), so perhaps researchers have pivoted toward assessing individual differences within the group and assume gendered racism is already strongly established in the literature. Conversely, researchers may not be prioritizing gendered racism in Latina samples because of past research that has suggested Latinas and non-Hispanic White women have more similarities than differences in ED experiences (Cachelin et al., 2014; Perez et al., 2016; Rodgers et al., 2018). The focus, albeit small, on pica may also be related to a focus on individual differences given that that study measured pica in the context of pregnancy (Roy et al., 2018), and pica diagnosis qualifies that the behavior is not better explained by a cultural food practice (American Psychiatric Association, 2013). The themes about the use of adapted treatments for this group also mirror existing literature that suggests that racial/ethnic minorities with ED can benefit from treatment as usual to reduce ED behaviors, but that culturally informed models of ED in these groups still

ought to be developed and tested for a more comprehensive picture of the ED landscape (Lydecker et al., 2019).

Application of intersectionality theory

Results answer Question 3 by showing that some researchers have an intention to recognize intersectionality theory in each racial/ethnic minority group of women, either explicitly or peripherally, while many may not. While it is not required that researchers utilize intersectionality theory in their work on racial/ethnic minority women, it is intriguing that researchers who chose to focus on those samples did not consider using it in the years between 2016 and 2021, three decades after the theory was first introduced. Indeed, it is recommended that researchers, clinicians, consultants, and educators utilize an intersectional frame when attending to multicultural issues in psychology (Clauss-Ehlers et al., 2019), and given that much of the research presented came from the psychology discipline, we can infer from this study that the ED field has room for growth with this regard. It has also been speculated that intersectionality theory pairs better intuitively with qualitative research than quantitative (Bauer et al., 2021), so perhaps the representation of quantitative studies compared to qualitative studies in the dataset overpower the potential for use of the theory.

Furthermore, it is imperative to note that class-related factors (e.g., food insecurity, income, SES) were not variables of focus in the two papers that do employ intersectionality theory. Across all of the papers reviewed, only one measured a class-related variables (e.g., food insecurity; Roy et al., 2018) in their analysis beyond what was collected for descriptive purposes or as control variables. Specifically, Roy and colleagues (2018) found that for pregnant Latinas, pica was pervasive and strongly associated with both iron deficiency and food insecurity. Some papers discuss the importance of having low-cost and easily accessible treatment options for

participants seeking intervention, implying that there are people with ED who otherwise have cost-related barriers impeding their healthcare (e.g., Goode et al., 2018; Shea et al., 2016). Intersectionality theory was initially conceptualized with race, gender, and class intersections at its core (Collins, 2015) and it has been observed that the intersection of race and gender are often placed above class in discourse about racial/ethnic minority women. Indeed, intersectionality theory has been critiqued for merely naming issues of classism while making more effort to both name and end gendered racism (Collins 2015), and that trend appears to be observed in the ED literature reviewed in this paper as well. Of note, in recent years there have been groundbreaking findings related to food insecurity and low socio-economic status as a risk factor for ED across racial/ethnic groups and genders (Burke et al., 2022; Coffino et al., 2020; Gomez & Perez, 2022 Lydecker & Grilo, 2019). Again, many of these studies would not have met our inclusion criteria, and thus were excluded from the review.

Implications

All of the studies surveyed in this chapter have implications for clinical work (e.g., primary care, psychiatric and psychological services, dietetics). Looking at groups separately has offered information about which ED may be likely to appear among each racial/ethnic minority group and how to approach them with regard to each race/ethnicity's unique standpoint. This allows for more specific attention to be paid to marginalized clients and lead to a greater quality of care. For example, practitioners can refer to the articles reviewed in this paper, all noted in Table 5, if they need direction on the impact of feminist and womanist identity on Asian American women clients' objectification (Le et al., 2020), the relationship between disordered eating and cardiomyopathy among Black women clients (Burton et al., 2020), and where to find culturally relevant adjustments to the guided self-help intervention for Latina clients (Shea et al.,

2016). Additionally, because this review assessed researchers' assumptions about their samples as well, ED clinical professionals can also use these findings to reflect on their own assumptions about the racial/ethnic minority women they serve and interrogate their sources of information for inclusion of responsible social justice. For example, the themes from the articles on Asian American women with ED may lead professionals to advocate for anti-racist curricula for their trainees and staff, such as that of the Racism, Health Care and Social Justice course at University of California San Francisco (Bai, 2020), knowing the risk microaggressions could have on their clientele's health. Furthermore, this study showed that researchers have focused heavily on Black women and Latinas binge eating and having high BMI, and that there are mixed findings on weight stigma and body dissatisfaction in these groups. As such, clinical professionals may seek a variety of sources on the nuances of weight stigma and healthful weight management practices to ensure their interventions are not oversimplifying weight and cultural eating behaviors as a problematic. By implementing efforts like these, the onus is not also on clients to manage intersectional stressors while they treat and recover from their eating disorders; professionals can incorporate evidence-based social justice resources and advocate for safe, equitable, and comfortable help-seeking experiences on their client's behalf.

Limitations

The results of this content analysis should be considered in light of some limitations. First, our inclusion criteria were narrow and specific to the goals of the current content analysis, and our search yielded small samples of articles to review. It is important to note that it is possible that the results for Question 1 are low given the specificity of the inclusion criteria for the current study. Research has improved to include other marginalized identities such as LGBTQ+, men with eating disorders, and eating disorders outside of the U.S. so our findings

should not be generalized to minimize other intersectional research being conducted. Regarding Question 3, it is also likely that there are more studies on groups of racial/ethnic minority women with ED that do utilize intersectionality theory that were published before 2016 (e.g., Capodilupo, 2014). It is also possible that research on intersectionality in ED is in the form of theoretical papers or review papers (e.g., Burke et al., 2020) given it is still a new concept in the ED field, which also did not meet inclusion criteria. Limiting our search to only the PsycINFO database, while broad and generally comprehensive for identifying literature on mental illnesses, potentially excluded articles that could have met criteria from a wider array of disciplines such as gender studies or medicine.

Furthermore, use of explicit intersectionality terminology does not necessarily constitute inappropriate application of the theory so long as systems of oppression are being interrogated for the sake of social justice for the affected groups (Cho, 2013). Also, there are other theorists who have contributed to intersectionality other than Crenshaw and Collins who researchers may have cited instead (Cole, 2020; Guy-Sheftall, 1995; Parker et al., 2022). Therefore, it is possible that many of the studies reviewed do contribute to our conceptualization of ED through an intersectionality theory lens even if they do not employ the terminology or cite the selected founding scholars. Researchers must continue to cite the Black feminist work if that is what is informing their position (Cho, 2013), but can still be considered meaningful to the greater social justice efforts using other theoretical foundations and literature.

Future directions

These results pose questions about how to implement intersectionality tenets with these samples, especially based on what was missing from each group within the publication date range from which these articles were gathered. Future ED research could measure potential

physical health comorbidities among Asian American women samples to ensure there is not a missed opportunity for well-rounded care for that group. Research also needs to consider or revisit exploring ethnic diversity, experiences of gendered racism, and acculturative stress in Black women samples. Additionally, research on experiences of systemic discrimination and race-related heterogeneity within Latina samples is needed. Notably, there was a lack of research that looked at socioeconomic variables such as food insecurity, as well as other ED such as pica and purging disorder, in all racial/ethnic minority groups. As such, future research should explore if and how ED and socioeconomic status interact among racial/ethnic minority women, and identify ED experiences other than anorexia nervosa, bulimia nervosa, and binge eating disorder. It would also be useful to have information on within-group experiences with ED from the racial ethnic minority groups missing from this study (e.g., Middle Eastern American, Multiracial, and Native American/American Indian). Furthermore, research focused on intersectional identities needs to maintain responsible use of the theory by citing original works by its founding scholars as opposed to secondary sources.

Conclusion

The current study has both shed light on the need for an intersectionality paradigm in ED research as well as extended current understandings of ED within racial/ethnic minority groups of women. There is still a need to assess the depth of intersectionality and ED within all racial/ethnic minority groups. As such, Chapter two of this dissertation will utilize latent profile analysis and intersectionality theory as the guiding framework to explore how social determinants of health might group and predict ED among Black women.

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Figure 1.1

Identification of studies focusing on ED via PsycINFO

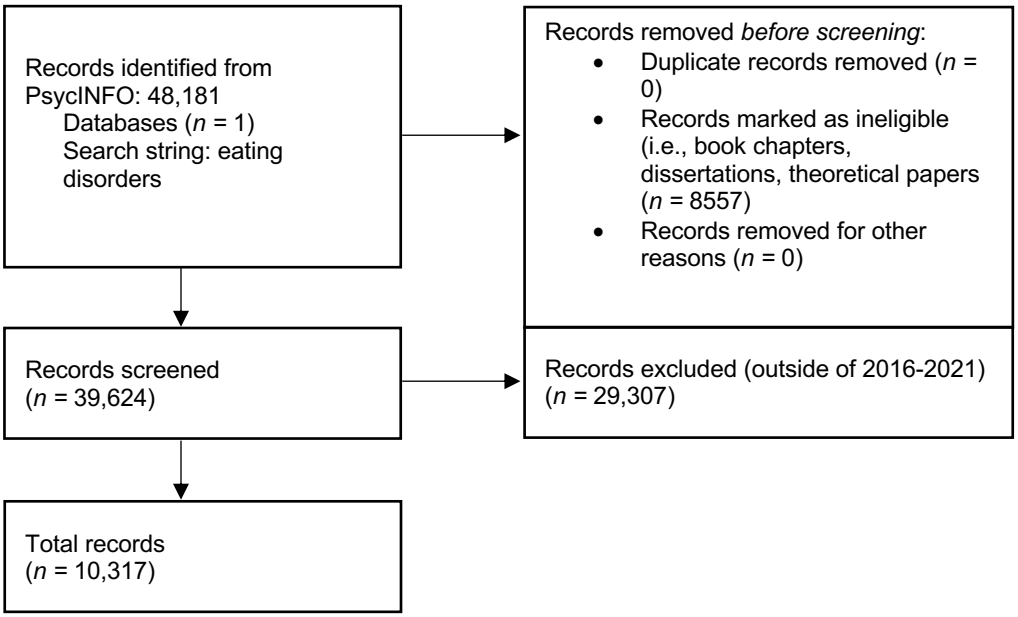

Figure 1.2

Identification of studies focusing on Asian American women with ED via PsycINFO registers

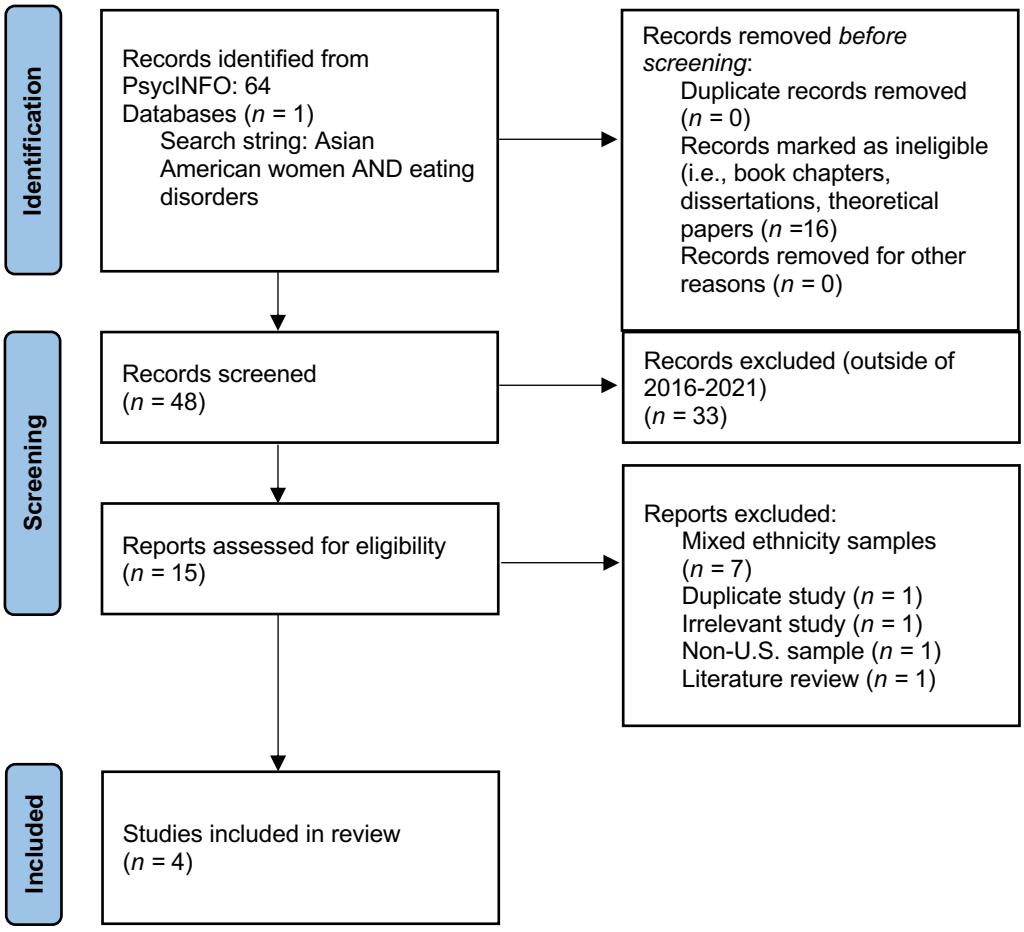

Figure 1.3

Identification of studies focusing on Black women with ED via PsycINFO registers

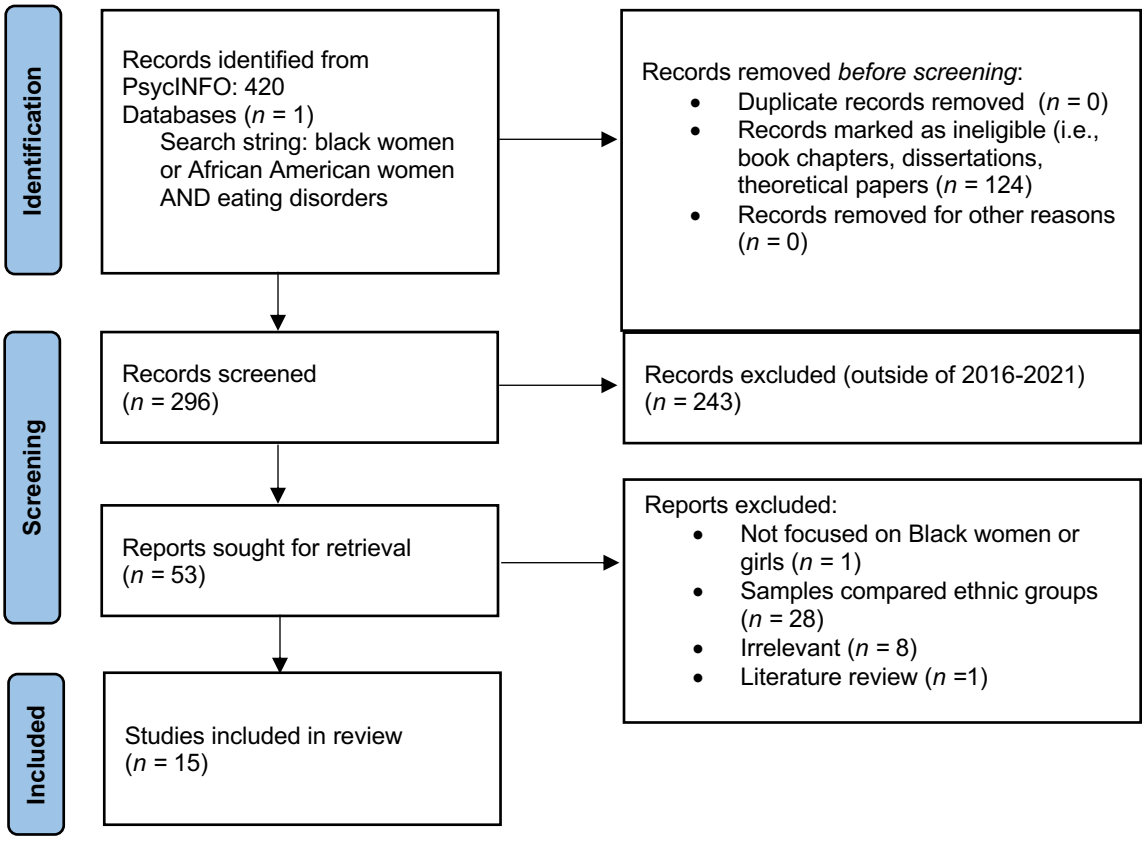

Figure 1.4

Identification of studies focusing on Latinas with ED via PsycINFO registers

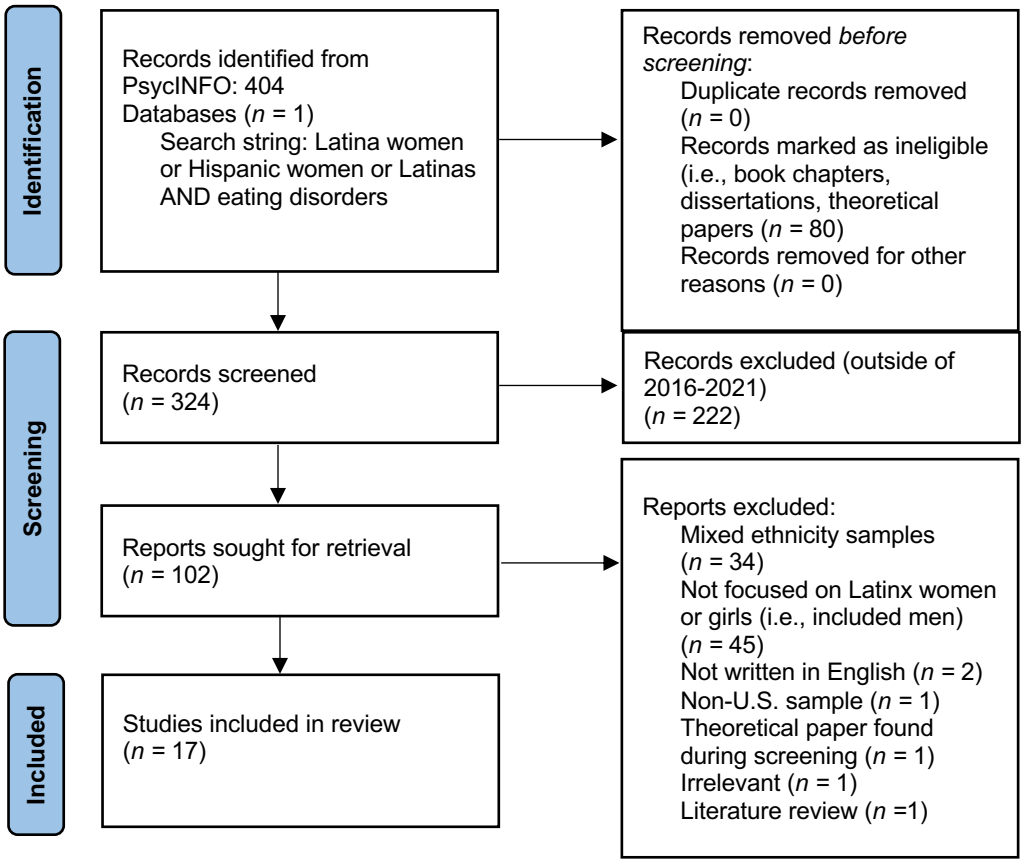

Figure 1.5

Identification of studies focusing on Middle Eastern American women with ED via PsycINFO registers

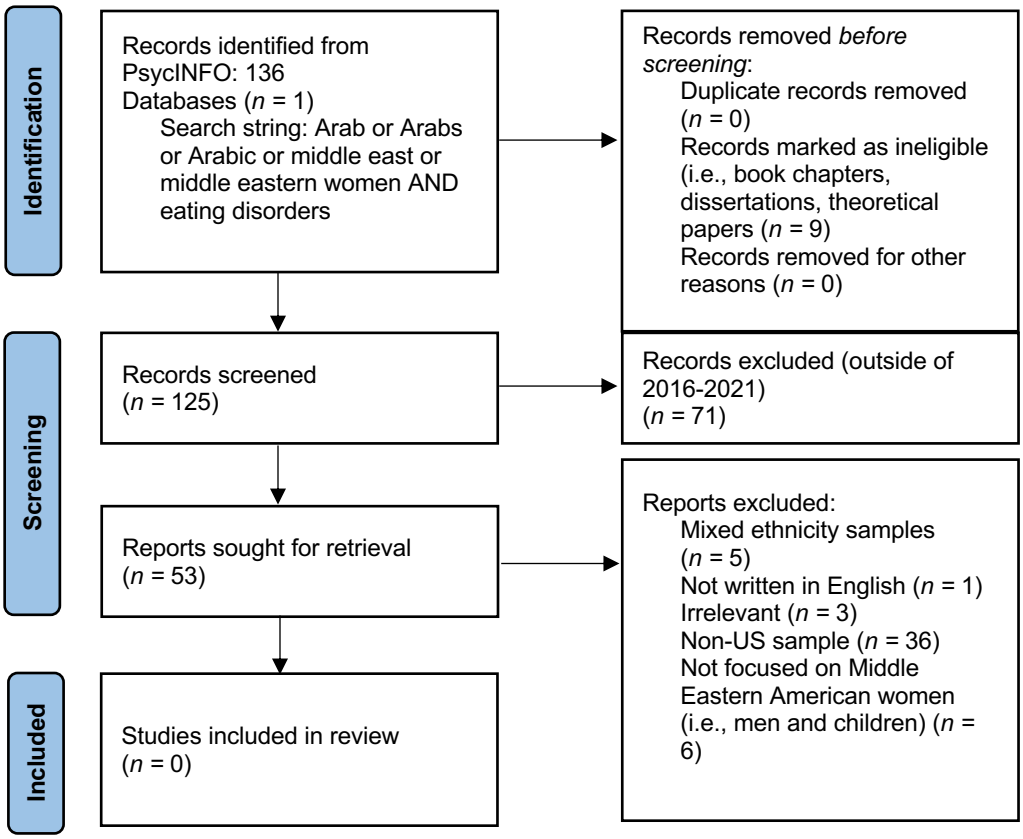

Figure 1.6

Identification of studies focusing on Multiracial women with ED via PsycINFO registers

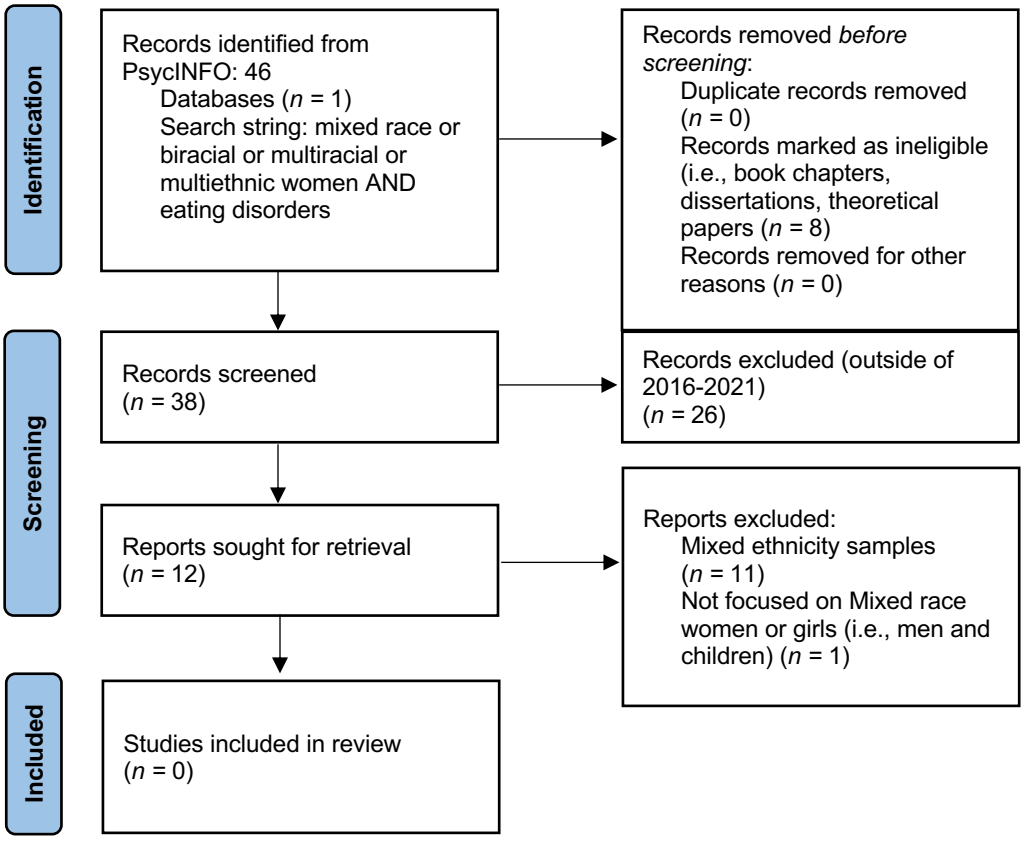

Figure 1.7

Identification of studies focusing on Native American/American Indian women with ED via PsycINFO registers

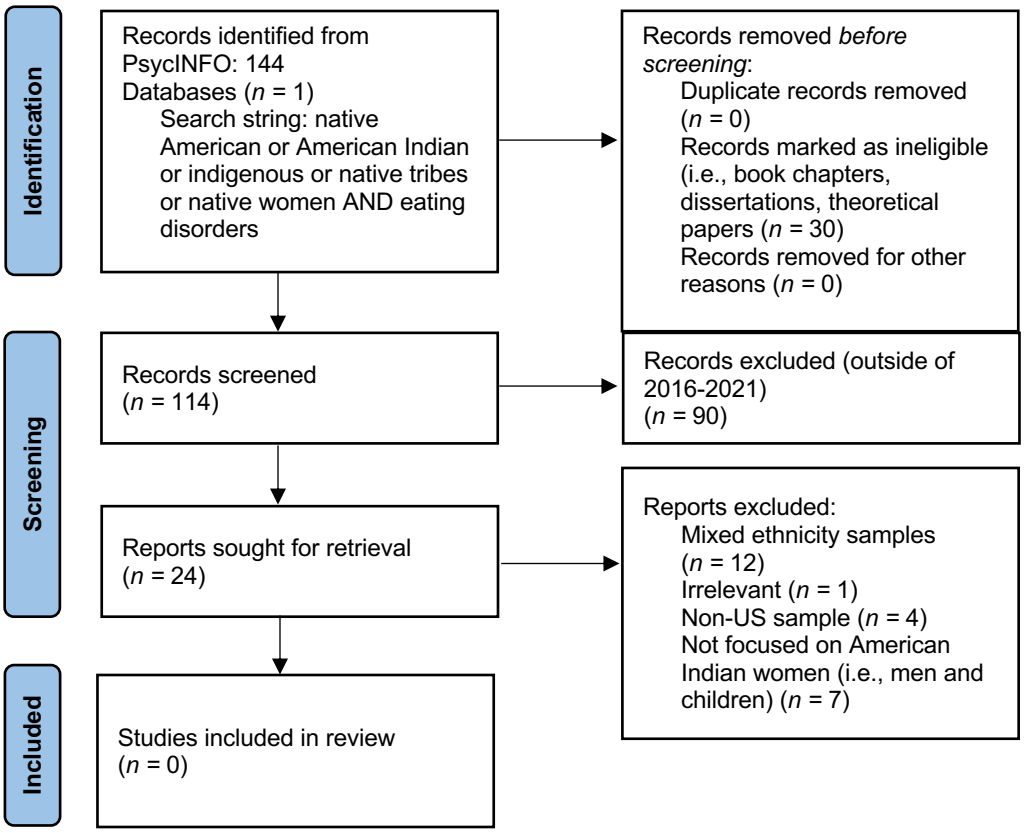

Table 1

Summary of article content

Article content	**Racial/ethnic minority group**		
Discipline	**Asian** ***N*** **= 4**	**Black** ***N*** **= 15**	**Latina** ***N*** **= 17**
Psychology	2	13	12
Medicine		1	1
Public health			1
Nursing			2
Social work			
Biology			
Health sciences			
Sociology			
Other			
Interdisciplinary	2	1	1
Design	**Asian** ***N*** **= 4**	**Black** ***N*** **= 15**	**Latina** ***N*** **= 17**
Case study		1	6
Clinical trial		1	1
Mixed method		2	
Quantitative	3	7	7
Qualitative	1	4	3
Other			
Sample age	**Asian** ***N*** **= 4**	**Black** ***N*** **=15**	**Latina** ***N*** **= 17**
Adults	4	15	15
Adolescents			2
Adults and adolescents			
Pre-adolescent children			
Older adults			
Other			
Sample type	**Asian** ***N*** **= 4**	**Black** ***N*** **= 15**	**Latina** ***N*** **= 17**
Community		7	8
Clinical		3	7
College	4	6	5
Other			
Ethnicities reported			
Articles on Asian American women: Filipino, Chinese, Japanese, Vietnamese, Korean, Other Asian American, South Asian, Thai, Taiwanese,			

	Cambodian, Hawaiian/ Pacific Islander, Hmong, Bangladeshi, Malaysian, Pakistani, Nepali, and Laotian		
	Articles on Black women: African American only		
	Articles on Latinas: Mexican (U.S.-born or born in Mexico), Caribbean, South America, Central America, Costa Rican, identified as White Hispanic/Latina, Puerto Rican and German, Bolivian, Columbian, Guatemalan, Honduras, Peru, Venezuela, Asian/Asian American, and identifying as American Indian or Alaskan Native, multiple races		
DSM		**Asian** ***N*** **= 4**	**Black** ***N*** **= 15**	**Latina** ***N*** **= 17**
	4		1	3
	5	1	6	7
	Not reported	3	8	3
	4 and 5			4
BMI		**Asian** ***N*** **= 4**	**Black** ***N*** **= 15**	**Latina** ***N*** **= 17**
	Reported	3	12	13
	Low			
	Normal	3		6
	Overweight		5	4
	Obese		6	3
	Class III obese	1	1	
	Did not report		3	4
Other intersectional identities of focus				
	Articles on Asian American women: Acculturation status			
	Articles on Black women: Health conditions, sexual orientation, and religion			
	Articles on Latinas: Acculturation status, health conditions, nationality, SES			

Intersectionality theory	Asian *N* = 4	Black *N* = 15	Latina *N* = 17
Yes	1	1	
Weak			
Strong		1	
Transformative	1		
No	1	9	15
Used the term or cited secondary sources	2	5	2

Table 2

Research on Asian women with ED (n =4)

Variable themes	***N***
Experiences of racism and sexism leading to ED and body image issues	2
Acculturation-specific pressures	2
Image related variables	3
Process designs	3
Not as much physical health focus – normal BMI	all
Result themes	***N***
There are mechanisms through which thin ideal among Asian women interacts with acculturative stress leading to ED	4

Table 3

Research on Black women (n = 15)

Variable themes	**Subthemes**	***N***
Larger bodies and overconsumption	Specifically measuring BE	6
	Specifically measuring obesity and overweight	10
	Black cultural ideals of body shape	2
Traditionally measured ED factors (maternal relationship, objectifying body image)		3
The absence of racism predicting ED		14
Lack of ethnic diversity		4
Result themes		***N***
Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED		6
Measures and treatments that integrate culture-informed definitions and views elucidate ED experiences unique to Black women		4
Comorbidity between health status (especially obesity and overweight) and ED for Black women		6

Table 4
Research on Latinas (n =17)

Variable themes	***N***
Acculturation-specific pressures	3
Purging and overconsumption ED behaviors	12
Mostly Mexican American	5
Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others	14
Family/household-orientated variables	3
Result themes	***N***
Little to no mention of unique racial/ethnic standpoint in results - treatment as usual was efficacious with non-adapted measures	8
Culturally adapted treatments and measures should include family, cultural food practices, or acculturative stress	8
Pica may be worth further exploration among Latinas	2
Included discussion about cultural food norms predicting bingeing	5

Table 5
Summary and citations for all (N =36) articles coded

Group	Study	Patterns found in this article
Asian American Women	Akoury, L. M., Warren, C. S., & Culbert, K. M. (2019). Disordered eating in Asian American women: Sociocultural and culture-specific predictors. Frontiers in psychology, 10, 1950.	Image related variable No focus on physical health There are mechanisms through which thin ideal among Asian women interacts with acculturative stress leading to ED Peripheral use of intersectionality theory
	Cheng, H. L., Tran, A. G., Miyake, E. R., & Kim, H. Y. (2017). Disordered eating among Asian American college women: A racially expanded model of objectification theory. Journal of Counseling Psychology, 64(2), 179.	Experiences with racism and sexism leading to ED and body image Acculturation-specific pressures There are mechanisms through which thin ideal among Asian women interacts with acculturative stress leading to ED Peripheral use of intersectionality theory
	Javier, S. J., & Belgrave, F. Z. (2019). "I'm not White, I have to be pretty and skinny": A qualitative exploration of body image and eating disorders among Asian American women. Asian American journal of psychology, 10(2), 141.	Acculturation-specific pressures There are mechanisms through which thin ideal among Asian women interacts with acculturative stress leading to ED
	Le, T. P., Kuo, L., & Yamasaki, V. (2020). Gendered racial microaggressions, feminism, and	Experiences of racism and sexism leading to ED and body image issues

	Asian American women's eating pathology: An intersectional investigation. Sex Roles, 83(3), 127-142.	Image related variable There are mechanisms through which thin ideal among Asian women interacts with acculturative stress leading to ED Transformative intersectionality scholarship
Black women	Awad, G. H., Kashubeck-West, S., Bledman, R. A., Coker, A. D., Stinson, R. D., & Mintz, L. B. (2020). The role of enculturation, racial identity, and body mass index in the prediction of body dissatisfaction in African American women. Journal of Black Psychology, 46(1), 3-28.	Specifically measuring obesity and overweight Measures and treatments that integrate culture-informed definitions and views elucidate ED experiences unique to Black women
	King, L. H., Abernethy, A. D., Keiper, C., & Craycraft, A. (2019). Spirituality and eating disorder risk factors in African American women. Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity, 24(5), 923-931.	Traditionally measured ED factors (maternal relationship, objectifying body image) Measures and treatments that integrate culture-informed definitions and views elucidate ED experiences unique to Black women Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED
	Longmire-Avital, B., & Finkelstein, J. (2021). "She Does Not Want Me to Be Like Her": Exploring the Role of Maternal Communication in Eating Disorder Symptomatology Among	Traditionally measured ED factors (maternal relationship, objectifying body image) Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape

Collegiate Black women. Women & Therapy, 1-21.	ideals, role of food and family influence) that interact with ED Peripheral use of intersectionality theory
Matthews, A. K., Li, C. C., McConnell, E., Aranda, F., & Smith, C. (2016). Rates and predictors of obesity among African American sexual minority women. LGBT health, 3(4), 275-282.	Specifically measuring obesity and overweight Comorbidity between health status (obesity and overweight) and ED for Black women Peripheral use of intersectionality theory
Opichka, K., Smith, C., & Levine, A. S. (2019). Problematic Eating Behaviors Are More Prevalent in African American Women Who Are Overweight or Obese Than African American Women Who Are Lean or Normal Weight. *Family and community health, 42(2), 81-89*	Specifically measuring obesity and overweight Comorbidity between health status (obesity and overweight) and ED for Black women
Salami, T. K., Carter, S. E., Cordova, B., Flowers, K. C., & Walker, R. L. (2019). The Influence of Race-Related Stress on Eating Pathology: The Mediating Role of Depression and Moderating Role of Cultural Worldview Among Black American Women. Journal of Black Psychology, 45(6-7), 571-598.	Racism predicting ED Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED Peripheral use of intersectionality theory
Scott, T. N., Gil-Rivas, V., & Cachelin, F. M. (2019). The need for cultural adaptations to health interventions for African American women: A qualitative analysis. Cultural Diversity and Ethnic Minority Psychology, 25(3), 331.	Specifically measuring BE Specifically measuring obesity and overweight Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED

	Measures and treatments that integrate culture-informed definitions and views elucidate ED experiences unique to Black women
Stojek, M. M., Maples-Keller, J. L., Dixon, H. D., Umpierrez, G. E., Gillespie, C. F., & Michopoulos, V. (2019). Associations of childhood trauma with food addiction and insulin resistance in African-American women with diabetes mellitus. Appetite, 141, 104317.	Specifically measuring obesity and overweight Comorbidity between health status (obesity/overweight and diabetes) and ED for Black women
Talleyrand, R. M., Gordon, A. D., Daquin, J. V., & Johnson, A. J. (2017). Expanding our understanding of eating practices, body image, and appearance in African American women: A qualitative study. Journal of Black Psychology, 43(5), 464-492.	Black cultural ideals of body shape Comorbidity between health status (obesity and overweight) and ED for Black women Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED Peripheral use of intersectionality theory
Wilfred, S. A., & Lundgren, J. D. (2021). The Double Consciousness Body Image Scale: A body image assessment centering the experiences of Black women. International Journal of Eating Disorders, 54(10), 1771-1781.	Specifically measuring BE Measures and treatments that integrate culture-informed definitions and views elucidate ED experiences unique to Black women Peripheral use of intersectionality theory
Burton, E. T., Kamody, R. C., Pluhar, E. I., Gray, E., & Abdullah, S. (2020). Radical acceptance and obesity-related health conditions: a case	Specifically measuring BE Specifically measuring obesity and overweight

report. Journal of Clinical Psychology in Medical Settings, 27(2), 217-225.	Comorbidity between health status (obesity and overweight and cardiovascular health) and ED for Black women
Davies, A. E., Burnette, C. B., & Mazzeo, S. E. (2021). Testing a moderated mediation model of objectification theory among Black women in the United States: The role of protective factors. Sex Roles, 84(1), 91-101.	Traditionally measured ED factors (maternal relationship, objectifying body image) Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED Strong intersectionality scholarship
Goode, R. W., Kalarchian, M. A., Craighead, L., Conroy, M. B., Gary-Webb, T., Bennett, E., ... & Burke, L. E. (2020). Perceptions and experiences of appetite awareness training among African-American women who binge eat. Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity, 25(2), 275-281.	Specifically measuring BE Specifically measuring obesity and overweight Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED
Goode, R. W., Kalarchian, M. A., Craighead, L., Conroy, M. B., Wallace Jr, J., Eack, S. M., & Burke, L. E. (2018). The feasibility of a binge eating intervention in Black women with obesity. *Eating behaviors*, *29*, 83-90.	Specifically measuring BE Specifically measuring obesity and overweight Comorbidity between health status (obesity and overweight) and ED for Black women
Hunter, E. A., Kluck, A. S., Cobb-Sheehan, M. D., English, E. M., & Ray, E. (2017). Family food and shape messages: Capturing the experiences of African-American women. Appetite, 118, 26-40.	Black cultural ideals of body shape Findings identify factors that are unique to Black women cultural standpoint (i.e., larger body shape ideals, role of food and family influence) that interact with ED

Latinas	Kumar, M., Gahagan, S., Pickering, B., Gold, J., & Stein, M. T. (2016). Chronic headaches after a concussion in an obese 16-year-old girl. Journal of Developmental & Behavioral Pediatrics, 37(9), 771-774.	Purging and overconsumption, ED behaviors specifically Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures
	Lui, P. P. (2017). Incorporating meta-emotions in integrative cognitive-affective therapy to treat comorbid bulimia nervosa and substance use disorders in a Latina American. Clinical Case Studies, 16(4), 328-345.	Purging and overconsumption, ED behaviors specifically Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures
	Masuda, A., Ng, S. Y., Moore, M., Felix, I., & Drake, C. E. (2016). Acceptance and commitment therapy as a treatment for a Latina young adult woman with purging: A case report. Practice Innovations, 1(1), 20.	Purging and overconsumption, ED behaviors specifically Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures
	Minnick, A. M., Cachelin, F. M., & Durvasula, R. S. (2017). Personality Disorders and Psychological Functioning Among Latina	Purging and overconsumption, ED behaviors specifically

	Women with Eating Disorders. Behavioral Medicine, 43(3), 200-207.	Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures
	Patmore, J., Meddaoui, B., & Feldman, H. (2019). Cultural considerations for treating Hispanic patients with eating disorders: A case study illustrating the effectiveness of CBT in reducing bulimia nervosa symptoms in a Latina patient. Journal of Clinical Psychology, 75(11), 2006-2021.	Acculturation-specific pressures Purging and overconsumption, ED behaviors specifically Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures Included discission about maintaining cultural norms predicting bingeing Peripheral use of intersectionality theory
	Reyes-Rodríguez, M. L., Gulisano, M., Silva, Y., Pivarunas, B., Luna-Reyes, K. L., & Bulik, C. M. (2016). “Las penas con pan duelen menos”: The role of food and culture in Latinas with disordered eating behaviors. Appetite, 100, 102-109.	Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Culturally adapted treatment and measures should include family, cultural food, or acculturative stress Included discission about maintaining cultural norms predicting bingeing

Roy, A., Fuentes-Afflick, E., Fernald, L. C., & Young, S. L. (2018). Pica is prevalent and strongly associated with iron deficiency among Hispanic pregnant women living in the United States. Appetite, 120, 163-170.	Purging and overconsumption, ED behaviors specifically Mostly Mexican American Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Family/household-orientated variables Culturally adapted treatment and measures should include family, cultural food, or acculturative stress
Shea, M., Cachelin, F. M., Gutierrez, G., Wang, S., & Phimphasone, P. (2016). Mexican American women's perspectives on a culturally adapted cognitive-behavioral therapy guided self-help program for binge eating. Psychological services, 13(1), 31.	Mostly Mexican American Culturally adapted treatment and measures should include family, cultural food, or acculturative stress
Stein, K. F., Lee, C. K., Corte, C., & Steffen, A. (2019). The influence of identity on the prevalence and persistence of disordered eating and weight control behaviors in Mexican American college women. Appetite, 140, 180-189.	Mostly Mexican American Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures
Binkley, J., & Koslofsky, S. (2017). Una familia unida: Cultural adaptation of family-based therapy for bulimia with a depressed Latina adolescent. Clinical Case Studies, 16(1), 25-41.	Purging and overconsumption, ED behaviors specifically Mostly Mexican American

	Family/household-orientated variables Culturally adapted treatment and measures should include family, cultural food, or acculturative stress Peripheral use of intersectionality theory
Cachelin, F. M., Gil-Rivas, V., Palmer, B., Vela, A., Phimphasone, P., de Hernandez, B. U., & Tapp, H. (2019). Randomized controlled trial of a culturally-adapted program for Latinas with binge eating. Psychological Services, 16(3), 504.	Purging and overconsumption, ED behaviors specifically Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Culturally adapted treatment and measures should include family, cultural food, or acculturative stress
Cachelin, F. M., Thomas, C., Vela, A., & Gil-Rivas, V. (2017). Associations between meal patterns, binge eating, and weight for Latinas. International Journal of Eating Disorders, 50(1), 32-39.	Purging and overconsumption, ED behaviors specifically Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Culturally adapted treatment and measures should include family, cultural food, or acculturative stress Included discission about maintaining cultural norms predicting bingeing
Coniglio, K. A., & Farris, S. G. (2021). Treatment of Comorbidpica and Generalized Anxiety Disorder: A Case Study. Cognitive and Behavioral Practice, 28(3), 410-421.	Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Purging and overconsumption, ED behaviors specifically

	Pica may be worth further exploration among Latinx women Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures
Garcia, J. T., & VandeVusse, L. (2020). US-Born Mexican-Origin Women's Descriptions About Their Eating Patterns. Hispanic Health Care International, 18(4), 232-240.	Purging and overconsumption, ED behaviors specifically Mostly Mexican American Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Culturally adapted treatment and measures should include family, cultural food, or acculturative stress
Higgins, M. K., Bulik, C. M., & Bardone-Cone, A. M. (2016). Factors associated with self-identification of an eating disorder history among Latinas meeting criteria for past or current eating disorders. International Journal of Eating Disorders, 49(11), 1032-1035.	Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others Included discission about maintaining cultural norms predicting bingeing
Neyland, M. K. H., & Bardone-Cone, A. M. (2019). Treatment experiences of Latinas with current or past binge eating disorder and/or bulimia nervosa. Eating Disorders: The Journal of Treatment & Prevention, 27(2), 253–265. https://doi.org/10.1080/10640266.2019.1591827	Acculturation-specific pressures Focus on individual and internal differences, not as much on racism or ethnic identity variables interacting with others

	Little to no mention of unique racial/ethnic standpoint in results - TAU was efficacious, used non-adapted measures Included discission about maintaining cultural norms predicting bingeing
Higgins Neyland, M. K., & Bardone-Cone, A. M. (2017). Tests of escape theory of binge eating among Latinas. Cultural Diversity and Ethnic Minority Psychology, 23(3), 373–381. https://doi.org/10.1037/cdp0000130	Family/household-orientated variables Acculturation-specific pressures Purging and overconsumption, ED behaviors specifically Culturally adapted treatment and measures should include family, cultural food, or acculturative stress

SOCIAL DETERMINANTS OF EATING DISORDERS AMONG BLACK WOMEN: A LATENT PROFILE ANALYSIS OF GENDERED RACISM, FOOD INSECURITY, AND TRAUMA

Chapter one assessed the state of current eating disorders (ED) research on mutually exclusive racial/ethnic minority groups of women. It also assessed the responsible use of intersectionality theory by researchers. The results of the content analysis offer insights about researchers' assumptions and intentions when studying these groups, and the possibility of intersectionality theory being a more intentional foundation of our work. Specifically, only .0004%, .002%, and .002% and of all ED-related research published between 2016-2021 focused on Asian American, Black, and Latina samples of women, respectively. No articles were identified that met inclusion criteria for Middle Eastern American, Multiracial, or Native American/American Indian women with ED. Across the research on Asian American women, Black women, and Latinas, most of the articles were from the psychology discipline, focused on adult samples, and measured BMI. For studies that reported which DSM they referenced, most used the DSM-V. Research on Asian women and Latinas parsed out ethnic identity while research on Black women did not. In other words, research on Asian American women and Latinas reported the various ethnicities participants held, such as Korean American or Mexican American. Research on Black women did not ask participants what their ethnic background was (e.g., Caribbean American, Nigerian American) or only reported their samples as identifying as African American or Black. Research on Black women and Latina samples, focused on binge spectrum behaviors while studies on Asian women focused on restricting or bulimic behaviors.

Furthermore, research on ED in Black women focused on BMI/weight as a comorbid physical health variable, the unique cultural factors that interact with ED with this population, and the importance of integrating culture-informed definitions into research and treatment. There was also an emphasis on within-person individual differences and less on contextual factors such as gendered racism, trauma, and socioeconomic status. Intersectionality theory was used explicitly in less than 50% of the articles on Black women. These findings present an opportunity to bolster a needed intersectionality paradigm in ED research on Black women and continue to explore the depth of within-group ED experiences. As such, Chapter two of this dissertation explored how social determinants of health predict ED and perceived stress among Black women. I use the term "Black" throughout this chapter to account for the shared experience of Black racial identity across Black ethnic groups. However, to begin to account for unique within-group variability with this group, I also attempted to parse the sample's ethnicities in my analysis.

Eating disorders

ED are psychiatric conditions categorized by anorexia nervosa, bulimia nervosa, binge eating disorder, and other specified feeding and eating disorders according to the Diagnostic and Statistical Manual of Mental Disorders-5th edition (DSM-V; American Psychiatric Association, 2013). Lifetime prevalence of anorexia, bulimia, and binge eating disorder are estimated at .8%, .28%, and .85%, respectively (Udo & Girlo, 2022). ED have comorbidities with mood disorders and substance use disorders, as well as high probabilities of co-occurring sleep problems, cancer, anemia, somatic conditions, diabetes, and hypertension (Udo & Grilo, 2022). ED are also associated with social impairments such as difficulty getting along with others, interference with daily tasks, and problems meeting responsibilities (Udo & Grilo, 2022). Prevalence for suicide

attempts for those with ED is between 22-31% across anorexia, bulimia, and binge eating disorder, and there is a high mortality rate for ED due to suicide or other reasons (Arcelus et al., 2011; Udo & Grilo, 2022). Of note, other manifestations of ED are gaining attention in the ED literature and clinical milieu including pica (marked by consuming items that are not typically thought of as food or nutritious), purging disorder, and avoidant and restrictive food intake disorder (ARFID) (American Psychiatric Association, 2013). ED are distributed across sociodemographic characteristics such as sex, gender, age, race/ethnicity, and education level, though treatment disparities report underrepresentation of men and historically minoritized groups like racial/ethnic minority women (Udo & Grilo, 2022).

ED research conducted in the United States (U.S.) has inconsistently focused on the experiences of Black women compared to White women (Egbert et al., 2022; Gilbert, 2003; Lovejoy, 2001). Much of the earlier research on ED either failed to report racial or ethnic demographic information or compared racial/ethnic minority samples to White women samples (Capodilupo & Forsyth, 2014; Egbert et al., 2022). There has been a call to action (e.g., Burke et al., 2020; Simon et al., 20222) for the ED field to focus on how the oppression associated with intersections of identity, not just the identities themselves, contribute to the illness. Black women in the U.S. have a unique position in the discourse about ED because of their vulnerability to multiple forms of oppression and stressors that often result in ED risk factors (Lovejoy, 2001). These factors are sometimes referred to as social determinants of health, and can include teasing/harassment, food insecurity, financial difficulty, discrimination (e.g., racism, sexism, weight stigma, homophobia), gender, U.S. nativity, low neighborhood safety, use of public assistance, and trauma (e.g., ACEs and stressful life events; Burke et al., 2022; Simone et al., 2022). Many of these risk factors are often most significant for people during emerging

adulthood and are differentially present across genders (Simone et al., 2022). Given the scope of the current study and patterns in the literature on Black women and ED, four social determinants of health will be focused on in the present investigation.

Intersectionality theory, Black women, and ED

Many of the studies that have assessed what and how social determinants of health contribute to ED prevalence and behaviors (e.g., Burke et al, 2022; Simone et al., 2022) were informed by intersectionality theory. Kimberlé Crenshaw (1991) coined the term, intersectionality, to highlight the unique and often unacknowledged stressful experiences of classist and gendered racism in anti-discrimination legal cases and state-sanctioned violence faced by Black women. The theory was developed from a rich history of Black feminist scholarship (e.g., Cole, 2020; the Combahee River Collective, Guy-Sheftall, 1995) and emphasizes how Black women are at a unique intersection of identity that unfortunately renders them less visible and less considered than White women and Black men in conversations about sexism and racism. As Cho, Crenshaw, and McCall (2013) expressed, “Black females are both too similar to Black men and white women to represent themselves and too different to represent either Blacks or women as a whole” (p. 790). Patricia Hill Collins has also written extensively on intersectionality theory (e.g., 2015; 2020). Like Crenshaw, Collin’s scholarship has highlighted how poor Black American women’s marginalized position has rendered them caricatured and invisible (Collins, 2000). Indeed, her foundational work on Black women being reduced to stereotypical controlling images and dependence on Africentric beauty ideals has been used to conceptualize Black women’s self-image and eating behaviors (Collins, 2002; Lovejoy, 2001). Intersectionality theory assumes that for Black women, oppression is synergistic and heightens stress, and it needs to be interrogated as such. As such, intersectionality theory as a field of study

offers a way to conceptualize experiences, interrogate the status quo, survey the systems that shape our social structures, and guide praxis that can reimagine sociopolitical realities (Collins, 2015).

When considering intersectionality and Black women's ED experiences, many studies highlight (though not many explicitly name as shown in Chapter 1) the presence of intersectional stress that contributes to ED. Indeed, research on Black women's experiences with ED has suggested that Black women are less concerned with thinness and dieting, traditionally central symptoms of ED, even though they engage in bulimic and binge eating behaviors at similar or higher rates than other racial/ethnic groups of women (e.g., White women; Goode et al., 2020). While preoccupation with thinness and dieting can be consequences of pressures related to sexism for all women (Gilbert & Thompson, 1996), binge eating in Black women, the most common ED among Black women, has been speculated to be a coping mechanism for more nuanced experiences of sexism, namely gendered racism (Goode et al., 2018; Goode et al., 2020; Talleyrand, 2012). Gendered racism was coined by Philomena Essed (1991) and is defined as an intertwining of a racism that is embedded with sexism, and vice versa, uniquely experienced by and negatively impacting Black women. Some Black feminist scholars have contended that Black women who have internalized gendered racism may develop disordered eating, especially those marked by restricting behaviors, in their efforts to assimilate their weight and bodies to the thin White dominant culture and gain social mobility (Lovejoy, 2001). That is, although Black women may not strive for the same thinness ideal that has been central to traditional conceptualizations of ED, a striving may be present in recognition of the potential for social mobility that can result from being thin. Furthermore, some reports say Black women with high BMI who are enculturated to Black culture have high levels of body dissatisfaction. For such

cases, researchers use intersectionality theory to propose that beyond sexism, gendered racism causes worry for Black women about discrimination and stereotyping of them as "undesirable and unhealthy… mammies or overweight welfare queens" (p. 20; Awad et al., 2020; Collins, 2000). Additionally, Parker et al., (2022) studied the interaction of Black girls' skin color satisfaction, a lesser studied element of ED risk, with poor body image and binge eating. They found that Black girls with lower skin color satisfaction did indeed report increased risk for binge eating disorder and use of binge eating behaviors, and that this relationship is mediated by body dissatisfaction. These findings were independent of BMI; that is, the findings were found across weight statuses (Parker et al., 2022). Again, Parker et al. (2022) contextualize these findings using intersectionality theory that posits there is a negative influence of gendered racism on how Black women's physical appearances are evaluated (Capodilupo & Kim, 2014; Lewis & Neville, 2015; Parker et al., 2022). Specifically, they suggest that sexist and racist ideas about ethnocentric features being undesirable are unique to how Black women form body image, and will continue to be overlooked risk factors for ED by those who ignore forms of oppression other than sexism (Parker et al., 2022). As such, gendered racism will be a variable of focus in the current study.

Additional social determinants of health that can be relevant to Black women's ED outcomes include socioeconomic factors. While intersectionality theory was initially conceptualized with race, gender, and class intersections at its core, it has been observed that the intersection of race and gender is often placed above other identities, especially class status. Indeed, intersectionality theory has been critiqued for becoming diluted as it crosses disciplines, simply naming issues of classism without working equally as hard to address and eradicate it as much as gendered racism (Collins 2015). In the health field, there is a misperception that only

skinny, white, and affluent women and girls develop ED (Sonneville & Lipson, 2018). While research debunking the idea that only skinny and white women and girls develop ED have been gaining traction, there have been recent groundbreaking findings related to food insecurity as a risk factor for ED, a breakthrough in our understanding of class-related risk factors and ED. Food insecurity occurs when there is reduced quality of diet, sometimes with reduced food intake and disrupted eating patterns, due to inadequate access to food and/or the money needed to continue accessing it (Rabbitt et al., 2023). Across racial/ethnic groups (e.g., Black and non-Black groups) and genders, food insecurity has been found to increase binge, anorexic, and bulimic behaviors that mirror the cycle of inconsistent access to food faced by food insecure people (Coffino et al., 2020; Gomez & Perez, 2022; Lydecker & Grilo, 2019). That is, people tend to engage in a feast/famine cycle; they binge on food obtained when they were able to access food, often through food assistance programs, and restrict their eating or engage in compensatory behavior when they are close to running out (Goode et al., 2023). Additionally, severe food insecurity (being food insecure and having hungry children in the home) has been linked to elevated ED pathology, increased weight stigma, dietary restraint, higher levels of worry, binge eating, night eating, compensatory behavior, and elevated concern about weight/shape (Becker et al., 2017).

Unfortunately, there are not many studies on food insecurity predicting ED among Black women, which is concerning given Black female-headed households continue to have high prevalence of food insecurity (Chilton & Rose, 2009; Coleman-Jansen, 2020). However, there are some notable exceptions of research on Black participants across genders. Such studies have indeed found that Black participants were more likely to report food insecurity and that food insecurity is positively correlated to disordered eating behaviors, obesity, and overweight (e.g.,

Adams et al., 2003; Christensen et al., 2021; El Zein et al., 2019; Goode et al., 2021; Townsend et al., 2001). As such, it would be helpful to better know if food insecurity works in tandem with gendered racism to predict ED in the current study population. Additionally, there are no known studies on ED and water insecurity among Black samples. Water insecurity is "the safe and reliable access to sufficient quantity and quality of water for household consumption, production, and cleanliness (p. 1093; Deitz & Meehan, 2019)" and is a known correlate to food insecurity (Chilton & Rose, 2009). As such, water insecurity will also be explored in the current study. Having two class-related factors will help reintegrate class as an equally weighted part of Black women's intersectional ED experience.

The final social determinant of health that will be examined in this study is trauma, another well-established risk factor for ED (Burke et al., 2022; Simone et al., 2022). Trauma is defined as actual or threatened death, serious injury, or sexual violence (Pai, et al., 2017). Sexual abuse and violence, be that in adulthood or childhood, often precipitate and collude with anorexic, binge, and bulimic behaviors (Brewerton, 2007; Convertino et al., 2022; Goode et al., 2020; Smolak & Murnen, 2002; Solmi et al., 2020). Additionally, there is a relationship between combat and military sexual trauma and ED (Breland et al., 2018; Convertino et al., 2022). There are a few assertions, drawn from both research and clinical data, about factors that mediate trauma and ED. One theory is that ED develop to help self-medicate and cope with the negative emotions, posttraumatic stress, and disgust with one's body after traumatic events, especially trauma of a sexual nature (Brewerton, 2007; Convertino et al., 2022). Furthermore, depending on how a sexual trauma is internalized, those who experience sexual trauma sometimes use ED with hopes of altering their bodies in ways that bring them safety, such as becoming more aligned with a beauty standard to gain validation or less aligned with a beauty standard to detract

perpetrators (Madowitz, et al., 2015). As such, trauma and ED may become intertwined and feed off of each other. By using ED behaviors to avoid or numb the pain of trauma, the trauma are not effectively processed and continue to lead to poor health and reliance on ED (Jenzer et al., 2020).

With regard to intersectionality, trauma has not been measured as an ED risk factor specifically for Black women exclusively. However, Gentile and colleagues (2007) found that Latinas, Black (specifically African American and Afro-Caribbean) women, and women who identified as "other" who were economically disadvantaged and experienced physical and/or sexual trauma were at risk for ED more than their White counterparts. Binge-eating in Black women, the most common ED among Black women, has also been conceptualized as a coping mechanism for gendered racism, negative emotions, stress, sexual and physical abuse, and trauma (Goode et al., 2018; Goode et al., 2020; Talleyrand, 2012). ED are also typically referred to as "stress eating" or "emotional eating" rather than with technical jargon, suggesting coping and stress are central to ED experiences for this group (Talleyrand, 2017). Despite the scant literature on Black women specifically, trauma will be included in the LPA as a social determinant of health to also further explore if and how it interacts with others and contributes to ED and stress pathology uniquely for Black women.

The Present Study

It is evident that Black women have specific ED experiences, many of which have been linked to a range of social determinants of health. It is beneficial to know which combinations of these factors may be differentially contributing to Black women's ED pathology. In addition to informing clinical considerations, this type of investigation can support advocacy efforts for organizational and systemic change. As such, the present study used latent profile analysis (LPA) to illuminate within-group ED vulnerabilities in a sample of Black Atlanta-based college

students based on social determinants of health. This sample was selected given the diversity within the Black communities in the Atlanta metropolitan area, especially with regard to socioeconomic and health status (Georgia Healthy Cities, 2019). College students also represent the critical emerging adulthood period found to be associated with ED risk and emergence (Simone et al., 2022).

LPA is the analysis of choice for this study because of its ability to uncover unknown groupings of observations within a population based on responses to continuous measures (Bauer, 2022). Latent class analysis (LCA) is the same analysis as LPA but using categorical data instead of continuous; please note I use the terms "class," "profile," "group," and "strata" interchangeably in this paper. LPA was used to identify which strata of social determinants of health exist for this sample and assess if there are strata that are more or less likely to predict disordered eating pathology and perceived stress. This is a person-centered approach to studying unobserved heterogeneity in a study population (Nylund et al., 2007). Stated differently, LPA allows researchers to specify under which circumstances categories of differences occur within a group of people based on their reported patterns (Bauer, 2022). Because the current study used social determinants of health as parameters of the latent classes, I was able to determine if and how social contexts combine to predict a health outcome within a historically understudied group, thus informing systems-level prevention and interventions.

LPA clarifies latent profiles in three steps: 1) model specification, 2) determining the number of classes, and 3) interpretation (Bauer, 2022). In the model specification step, the observed variables are chosen and entered into a model with parameter restrictions. For the current study, the categorical input variables that comprised the latent classes are gendered racism, trauma exposure, food insecurity, and water insecurity. *MPlus* was the statistical

software used to analyze the data (Muthén & Muthén, 2017). *Mplus* contains options that assume local independence and homogeneity parameter restrictions, which means that the responses to continuous items within latent classes will be independent from one another, and the variance-covariance matrices across groups are homogenous (Bauer, 2022).

In step two, several models are tested to see which model of latent classes best fits the data, is interpretable, and is balanced (Bauer, 2022). This involves interpreting lowest fit indices, model shapes and magnitudes, sufficient class size, high entropy, theoretical plausibility, and error messages in *Mplus* that indicate at which point a new model fits better than previous models (Bauer, 2022). For the current study, I used the Bayesian Information Criterion (BIC), sample-size adjusted variant (SABIC), and the Akaike Information Criterion (AIC) as these are the recommended fit indices for LPA (Bauer, 2022). Next, I assessed the models identified as best-fitting for details on the classes that emerged. This involves assessing the class sizes, differences and similarities between classes, and the mean scores on the indicator variables in each class for interpretability (Bauer, 2022). I then named and defined the classes in step three.

Finally, because I explored covariates as predictor variables, and ED pathology and perceived stress as outcome variables based on latent class membership, I followed guidelines for applying LPA with covariates and distal outcomes (Asparouhov & Muthén, 2014). Once participants were assigned their most likely class membership, I used the R3STEP command in *MPlus* to test ethnicity and U.S. nativity as predictors, assessing if the frequency of the covariates are equal across each class (Clark & Muthén, 2009). This method allows researchers to treat a variable as a latent profile predictor to answer questions such as "Compared to other ethnic groups, are members of ethnicity 1 more likely to be in class 1 or 2?" (Asparouhov & Muthén, 2014; Layland, personal communication, 2024). Then, a mean comparison test was

performed using the automatic BCH method to compare each class's scores on the ED pathology and perceived stress measures (Clark & Muthén, 2009). With this method, researchers can test latent profiles as predictors of distal outcome variables (Nylund-Gibson et al., 2019). This permits researchers to answer questions like "Is there a difference in the scores on outcome X between profiles?" and "Which profiles differ in their scores on outcome X?" (Layland, personal communication, 2024). Given the exploratory nature of this study, and the assumption that these strata are latent and not observed, I did not have specific hypotheses about what the LPA would reveal.

Method

Data Cleaning Procedure

IRB approval was obtained prior to conducting this study. Between January 2023 and February 2024, 394 participants completed the survey on Qualtrics. Participants accessed the study via SONA, a participant recruitment and study management platform used by universities for connecting students to research studies for participation credit. Students can either participate in research studies for course credit or complete a research paper to fulfill requirements for classes across university departments. Participants for the current study were compensated with course credit for either psychology or counseling and psychological services classes during the spring, summer, and fall semesters between January 2023 and February 2024.

Patterns of missing data were analyzed using SPSS. Those with less than 80% of the survey data completed and missing validity checks (e.g., two or three out of the three validity items answered incorrectly or missing; $n = 39$) were excluded from the final analysis. Data were further cleaned to assess whether participants met inclusion criteria: identifying as being a member of a Black ethnic group (i.e., Black American, African, Caribbean, Latinx, Multiracial,

or another Black ethnicity they wrote in), being over age 18, and self-identifying as women. These inclusion criteria were set based on the aims of the study to explore ethnic diversity within an emerging adulthood aged sample of Black women. As such, those who self-reported non-Black ethnicity (i.e., identifying as "Other" and writing in "Asian"; $n = 10$), self-reported non-female gender identity (i.e., selected "Other" and wrote in "male"; $n = 7$), and selected "Other" ethnicity and/or gender without writing in to further explain their identities ($n = 33$) were excluded from final analysis. There was no missing data among the 305 remaining participants, so 305 participants were retained for the final analysis. According to Nylund-Gibson and Choi (2018) having a sample in the range 300-1000 for LPA is effective for uncovering well-defined profiles and having fit indices that function well.

Participants

Participants were age 18 and older, with mean age of 23.76. Regarding ethnicity, 12.1% identified as African, 54.8% identified as Black American, 6.2% identified as Caribbean, 2% identified as Latinx, and 24.9% identified as Multiracial/multiethnic. Participants who selected multiple ethnic groups (e.g., African and Latinx) or one of the listed ethnic groups and "other" were recoded as Multiracial/multiethnic for the purpose of conducting the covariate analysis. The majority of participants (87.5%) identified as U.S. native (12.5% identified as foreign-born). Furthermore, 20% identified as having either a past and/or current eating disorder (80% reported that they did not have an eating disorder) and 21.3% identified as having either a past and/or current other mental illness diagnosis (78.7% did not report having a mental illness). Additionally, 59.3% identified as having experienced disordered eating using the language "stress eating" and 44.6% identified as having past and/or current food insecurity. Please see Table 1 for additional descriptive statistics of the overall sample.

Measures

Demographic information

Demographic information was collected. These included age, ethnicity, academic major, U.S. nativity, sexual orientation, socioeconomic status, income, marital status, and gender identity. Furthermore, participants were asked if they have a past or current eating disorder or other mental illness diagnosis, if they have experienced disordered eating using culturally relevant language (i.e., "do you engage in stress eating?"; Tallyrand et al., 2017), and if they have experienced past or current food insecurity (Please see Appendix B for the full survey of measures).

Indicator variables

Gendered racism

The Gendered Racial Microaggressions Scale (GRMS) for Black women which assesses frequency of microaggressions and stress appraisal of microaggressions (Lewis & Neville, 2015). Stress appraisal is rated on a 6-point Likert-type scale from 0 (this has never happened to me) to 5 (extremely stressful) and frequency is rated on a 6-point Likert-type scale from 0 (never) to 5 (once a week or more). I averaged the frequency scores for a total mean frequency score. The total score for frequency has demonstrated strong reliability with a sample of Black women (α = .92; Lewis & Neville, 2015), including in the current study (α = .94). It also has a significant positive correlation with a measure of traumatic stress in a sample of Black women, supporting validity of the measure for the current study (Moody & Lewis, 2019).

Food insecurity

The Six-Item Food Security Scale identifies households that are food-insecure, or with very low food security, and was created by the U.S. Department of Agriculture (Blumberg et al.,

1999). Each item, such as this sample item, “The food that (I/we) bought just didn’t last, and (I/we) didn’t have money to get more,” are rated on Likert-type scales. Some items are rated on a scale of often true, sometimes true, never true, and don’t know. Others are rated on a scale of yes/no/don’t know. The affirmative responses (e.g., yes, often, sometimes, almost every month) were scored as 1 and the negative responses (e.g., no, never) were scored as 0. Raw summed scores of 0-1 indicate High or marginal food security categorization. Raw summed scores of 2-4 indicate low food security categorization. Raw summed scores of 5-6 indicate very low food security categorization. The scale has demonstrated robustness at classifying food insecurity in households from a nationally representative sample, correctly classifying 97.7% of households (Blumberg et al., 1999). It has also demonstrated adequate reliability (α =.87), including in the current study (α =.83), and validity with an ethnically diverse sample of Caribbean adults (Gulliford et al., 2004).

Water insecurity

The 12-item Household Water Insecurity Experiences Scale Short form (HWISE) was developed to measure household water availability, accessibility, use, and stability (Young et al., 2019). The scale asks participants to rate their experiences such as, “In the last 4 weeks, how frequently did you or anyone in your household worry you would not have enough water for all of your household needs?” as never (0), rarely (1), sometimes (2), often (3) and always (4) occurring. High scores indicate greater water insecurity. It has been validated in low- and middle-income countries with majority female samples (Young et al., 2019). The scale is not yet validated in high income countries but has demonstrated adequate reliability (ranging from α =.84 to .93), including in the current study (α =.97), and significant positive correlations with food insecurity measures (Brewis et al., 2020) across several cultures globally.

Exposure to trauma

Exposure to trauma was measured using the Brief Trauma Questionnaire, a 10-item self-report measure that assesses exposure to trauma based on the DSM-V Criterion A (Schnurr et al., 2002). It can be used to determine whether an individual has experienced a traumatic event or to determine the different types of traumatic events an individual has experienced. Exposure to trauma is endorsed if an individual reports "Yes" to either: life threat or serious injury for events in items 1-3 and 5-7; life threat for the event in item 4; serious injury for the event in item 8; or "Has this ever happened to you?" for events in items 9 and 10. It has demonstrated strong reliability for measuring both DSM-IV and DSM-V Criterion A for PTSD (Schnurr et al., 2002; U.S. Department of Veterans Affairs), as well as validity evidenced by significant positive correlation with a measure of depression in a sample of majority (66.5%) Black southern women experiencing natural disaster (Harville et al., 2015). Reliability in the current study is adequate (α =.78),

Outcome variables

ED pathology

Eating disorder pathology was measured as an outcome variable by asking participants about disordered eating symptoms over the past 28 days using the 28-item Eating Disorders Examination – Questionnaire (EDE-Q; Fairburn & Beglin, 1994, 2008). Participants are asked to identify the number of days, times, or intensity to which they experienced ED pathology. One example of an item is, "Over the past 28 days, how many times have you eaten what other people would regards as an unusually large amount of food (given the circumstances)?" (Fairburn & Beglin, 1994, 2008). Items are scored on Likert-type scales ranging from 0 (no day/not at all) to 6 (every day or markedly), or participants can write in the number of times they engage in that

behavior. The EDE-Q generates data on frequency of ED behavioral features and subscale scores that indicate the severity of the ED features restraint, eating concern, shape concern, and weight concern. Higher scores indicate more problematic ED behaviors and attitudes. This measure displays adequate reliability with a sample of college women (α =.75 – .93; Rose et al., 2013), including in the current study (α =.96), and validity with other ED measures such as the Binge Eating Scale, a widely used ED diagnostic measure (Celio et al., 2004).

Perceived Stress

Stress was measured as another outcome variable to offer insight to the stress of the sample's intersectionality irrespective of ED pathology. The Perceived Stress Scale (Cohen et al., 1983) is a 10-item questionnaire in which participants are asked about how often they felt or thought something in the last month. One example of an item is, "In the last month, how often have you felt that you were on top of things?" (Cohen et al., 1983). Items four, five, seven, and eight are reverse scored, then all 10 item scores are summed. Scores ranging from 0-13 would indicate low stress. Scores ranging from 14-26 would indicate moderate stress. Scores ranging from 27-40 would indicate high stress. This measure displays adequate reliability (α =.78), including in the current study (α =.82), and validity (Cohen and Williamson, 1988).

Statistical Analyses

LPA was the analysis of choice for this study. The current study aimed to explore and test which combination of social determinants of health stratify profiles of Black women and predict increased rates of ED pathology and perceived stress. LPA can be used for both exploration and hypothesis-testing of possible profiles within a group (Bauer, 2022). This is a person-centered approach to studying unobserved heterogeneity in a study population (Nylund et al., 2007). Stated differently, LPA allows researchers to specify under which circumstances categories of

differences occur within a group of people based on their reported patterns (Bauer, 2022). The current study used social determinants of health as indicator variables that comprise the latent profiles, allowing us to see if and how social contexts combine to predict health outcomes within a historically understudied group, thus informing systems-level prevention and intervention efforts.

LPA clarifies latent profiles in three steps: 1) model specification, 2) determining the number of profiles, and 3) interpretation (Bauer, 2022). In the model specification step, gendered racism, food insecurity, water insecurity, and trauma exposure were entered into a model with parameter restrictions in *MPlus*. In step two, I relied on the model selection recommendations and best practices from Spurk and colleagues (2020) that empower researchers to use many quantitative and qualitative criteria for conducting LPA to guide my decision-making. In LPA, model selection is not straightforward (Spurk et al., 2020); often, no single cut-off score can be valued more than another used to clarify which model fits best. As such, a combination of factors (e.g., fit indices, model shapes and magnitudes, class size, entropy, theoretical plausibility, error messages in *Mplus*) are considered in this step, giving the researcher a lot of agency in the final decision (Spurk et al., 2020). Six models (models with two to seven profiles) were tested to see which model of latent profiles fit the data, was interpretable, and was balanced (Bauer, 2022). I stopped testing models with more than seven classes because I began to receive error messages in *Mplus,* a nonstarter for retaining the tested model (Spurk et al., 2020). Furthermore, sample sizes of the emerging classes began to conflict with the recommendation that classes be at least 25 people or greater than 1% of the total sample (Spurk et al., 2020).

Considering the aforementioned quantitative criteria and interpreting its distinct shapes as most theoretically compelling and unique compared to the two- through seven-class models, I

retained the four-class model. The four-class model introduced a new profile shape compared to the three-class model, and the models with more than four profiles began to repeat profile shapes that emerged in the four-class model at different magnitudes, which was uncompelling. The five-, six-, and seven-class models also had much smaller classes (e.g., $n = 6$) than the four-class model. A model with a class of six people technically still meets the criterion of being greater than 1% of the sample, but I ultimately weighed the distinct profile shapes as being more important (Spurk et al., 2020). Additionally, the four-class model did not necessarily have the lowest fit indices. The values consistently lowered with the addition of a new class, a common occurrence in LPA that can make a researcher's reliance on fit indices in this step problematic (Spurk et al., 2020). Furthermore, the four-class model did not have the highest entropy. All of the models had comparably high entropy values above .80 which means they were all considered as having their members confidently categorized into their most likely class (Clark & Muthén, 2009). As such, content-related considerations were prioritized in my final decision. See Table 2 for the AIC, BIC, SABIC fit indices and entropy values for models with two, three, four, five, six, and seven profiles. In step 3 after choosing the four-class model, I named and defined the profiles in the four-class solution based on characteristics the scores and how they intersected (see Figure 1).

I then explored the covariates and outcome variables following guidelines for applying LPA with covariates and distal outcomes (Asparouhov & Muthén, 2014; Nylund-Gibson et al., 2019). The covariates were U.S. nativity and ethnicity as predictor variables of latent profile membership, and the outcome variables were ED pathology and perceived stress. The significance of U.S. nativity and ethnicity predicting latent profile membership was analyzed using the automatic R3STEP command in *Mplus*. A mean comparison test was performed to

compare each profile's scores on the ED pathology and perceived stress measures using the automatic BCH method in *MPlus* (Clark & Muthén, 2009; Nylund-Gibson et al., 2019).

Results

Please see Table 3 for correlations and chi-square test results for the relationships between the variables.

Latent Profile Analysis

Model Selection

As stated above, I selected the four-class solution as the best modeling of the heterogeneity of the data. The four-class solution consisted of a Low Intersectional Stress class (LIS; n = 176; 57.8%); a Food Insecure class (FI: n = 75; 24.6%); a High Intersectional Stress class (HIS; n = 30; 9.8%); and a Moderate Intersectional Stress class (MIS: n = 24; 7.9%). The LIS group was characterized by having lowest scores of all the classes: an average frequency of gendered racial microaggressions between *less than once a year* and *a few times a year* (M = 1.58), having secure access to food (M = .32), experiencing water insecurity almost never (M = .03), and an average score of about two when endorsing traumatic events that yielded stress responses (M = 2.4). The FI class was characterized by having the highest food insecurity (M = 3.42). The remaining scores were neither highest nor lowest compared to other classes. The FI group had an average frequency of gendered racial microaggressions *a few times a year* (M = 2.14), experiencing water insecurity almost never (M = .10), and an average score of about four when endorsing traumatic events that yielded stress responses (M = 3.9). The HIS class was characterized by highest frequency of gendered racial microaggressions (M = 2.77). Members of the HIS profile reported frequency of gendered racial microaggressions being closer to *about once a month*. Food insecurity scores were high (M = 2.36; (Blumberg et al., 1999). Members

reported an average frequency of water insecurity being closest to *sometimes (M = 1.9)* and an average frequency of traumatic events that yielded stress responses of close to five ($M = 4.83$), both of which were highest among all classes. Finally, the MIS group was characterized by a gendered racial microaggressions frequency of *about once a month* ($M = 2.23$), being in the food insecurity range ($M = 2.39$), experiencing water insecurity *rarely (M = 1.05)*, and average score of about three when endorsing traumatic events that yielded stress responses ($M = 3.39$). Scores for the MIS class were neither highest nor lowest compared to other classes. When I completed the R3STEP command in *MPlus*, neither U.S. nativity nor ethnicity were significantly different between classes. See Table 4 for characteristics of the latent profiles, noting that there is no statistical significance found for the predictor variables.

Outcome variables and latent profiles

Figure 2 shows means of EDEQ scores per profile. Results of the automatic BCH method reveal that mean EDEQ scores for the LIS class ($M = 1.46$) are significantly lower than scores for the FI class ($M = 2.15$; $\chi2= 11.68$, $p < .001$), HIS class ($M = 2.45$; $\chi2= 18.78$, $p < .001$), and MIS class ($M = 2.67$; $\chi2= 17.69$, $p = .001$). The EDEQ mean scores of the FI, HIS, and MIS groups are not significantly different from each other. Scores indicated that members of the FI, HIS, and MIS groups on average reported spending between one and two weeks over the last 28 says engaging in behaviors associated with eating disorders, and having between slightly and moderately severe ED features of restraint, eating concern, shape concern, and weight concern (Fairburn & Beglin, 1994, 2008).

Figure 3 shows means of PSS scores per profile. Results of the automatic BCH method reveal that mean PSS scores for the LIS class ($M = 16.92$) are significantly lower than the scores for the FI class ($M = 20.34$; $\chi2 = 18.27$, $p < .001$), HIS class ($M = 20.21$; $\chi2= 14.32$, $p < .001$),

and MIS class (M = 19.37; $\chi 2$= 5.00, p < .05). The PSS mean scores of the FI, HIS, and MIS groups are not significantly different from each other. Participants' scores in each group are within the 14-26 range, which indicates moderate stress (Cohen et al., 1983).

Discussion

Based on sparse but growing literature, it is evident that social determinants of health contribute to ED pathology for Black women. The purpose of this study was to explore Black women's ED pathology using LPA to illuminate how within-group ED vulnerabilities, namely gendered racism, food insecurity, water insecurity, and trauma, interconnect and relate to ED and stress outcomes. The LPA identified four strata of social determinants of health in the sample. The Low Intersectional Stress (LIS) group, which had the largest subsample of participants (n = 176), was characterized by having lowest average frequency of gendered racial microaggressions, lowest food insecurity, lowest water insecurity, and lowest traumatic exposure that yielded stress responses. The Food Insecure (FI) group, was characterized by having the third highest frequency of gendered racial microaggressions and the highest food insecurity of the four groups. The FI group had the second lowest water insecurity and second highest traumatic event exposure that yielded stress responses. The High Intersectional Stress (HIS) group, had the highest frequency of gendered racial microaggressions, high food insecurity, highest water insecurity, and highest traumatic event exposure that yielded stress responses. Finally, the Moderate Intersectional Stress (MIS) group which had the smallest subsample of participants (n = 24), was characterized by similarly high frequency of gendered racial microaggressions as the FI group, being in the food insecurity range, low water insecurity, and second lowest traumatic event exposure.

It is intriguing that the second-largest group (n = 75) reported the highest current and/or past food insecurity. The distribution in the FI group may reflect the unique food insecurity experiences of students at Georgia State University (GSU). In 2014, “Panther's Pantry” was established based on results of a survey that revealed 68% of college students at GSU were food insecure at any one point while enrolled at the university (Panther’s Pantry. [n.d.]). “The pantry has seen a dramatic increase in student visits since the Fall of 2017. The pantry has served up to 135 students in one week, while prior student visits were 11-15 students per week” (Panther’s Pantry. [n.d.]). It is however intriguing that for the FI class, participants on average reported close to zero water insecurity, despite the theoretical similarity between water insecurity and food insecurity (Frongillo, 2023; Young & Miller, 2022). Overall, water insecurity was low across classes, with even the highest score indicating members reported an average frequency of water insecurity being closest to *sometimes.* Perhaps this is due to the measure selected for this study; many of the items on the HWISE discuss access to water for cleaning and other household activities, not just drinking and cooking. These may not correlate with food insecurity as much as they reflect other elements of SES and water insecurity in its own right. The HWISE scale also has not yet been normed on a U.S. or other developed country sample (Young et al., 2019); a scale that is more reflective of the water security landscape in U.S. in which the current study sample reside may better elucidate experiences. Gendered racial microaggressions frequency mean scores were as expected across classes. The scale was normed on Black adult women, so it makes sense that participants in the current sample would see their experiences reflected in the items and endorse similarly as the sample from the original scale development (Lewis & Neville, 2015). Traumatic event exposure scores were relatively low overall (scores could have ranged from zero to 25).

An analysis of participants' ethnicity and US nativity to determine unique distribution across the latent profiles did not yield statistically significant differences. Because literature on these factors is also unknown, I did not have hypotheses about what would be uncovered or an evidence-base to explain their relationship to other variables in the data. One likely explanation is that anti-Black racism is the contributing ethnoracial variable for Black women's intersectionality and ED outcomes, rather than a form of discrimination that is specific to ethnicity or nationality. We see this reflected in the sample's scores on the GRMS which measures discrimination related to being a Black woman irrespective of ethnicity and nationality (Lewis & Neville, 2015). The small subsamples of ethnic groups as well as the greater representation of Black American and U.S. born participants likely also obscure possible within-group differences.

The FI, HIS, and MIS groups had significantly higher eating pathology and perceived stress scores than the LIS group, suggesting that moderate to high levels of stress related to intersectionality (e.g., gendered racism and class-related stress as measured by food and water insecurity) and trauma are associated with higher ED pathology and perceived stress. Put plainly, members of these groups on average spent between one and two weeks in a 28-day period engaging in behaviors associated with eating disorders, being between slightly and moderately preoccupied with weight and shape (Fairburn & Beglin, 1994; 2008), and having moderate overall stress (Cohen et al., 1983). These results align with existing literature that Black women who endorse ED pathology use it to cope with exposure to oppression, trauma, food insecurity, and gendered racism (Goode et al., 2018; Goode et al., 2020; Lovejoy, 2001; Pate et al., 1992; Rodgers et al., 2018; Talleyrand, 2012).

Given the exploratory nature of this study, and the assumption that these strata are latent and not observed, I did not have specific hypotheses about what the LPA would reveal. Based on the existing literature showing strong associations between food insecurity and ED outcomes across gender and racial/ethnic groups (e.g., increase binge eating, anorexic, and bulimic behaviors, increased weight stigma, dietary restraint, higher levels of worry, binge eating, night eating, compensatory behavior, and elevated concern about weight/shape; Becker et al., 2017; Coffino et al., 2020; Gomez & Perez, 2022; Lydecker & Grilo, 2019), it is unsurprising that groups with higher food insecurity had higher outcome scores than the profile with low food insecurity. Additionally, groups with relatively higher gendered racial microaggressions and traumatic event exposure also had higher eating pathology and perceived stress scores than the group with lowest scores on these scales. This is also expected; the GRMS has a body-related subscale, the Assumptions of Beauty and Sexual Objectification subscale, suggesting a phenomenon exists for Black women having stress from how their bodies and physical appearance are perceived, a known ED risk factor (Capodilupo & Kim, 2014; Lewis & Neville, 2015; Parker et al., 2022). Trauma is also known risk factor for ED pathology. Binge-eating in Black women, the most common ED among Black women, has been speculated to be a coping mechanism for negative emotions, stress, sexual and physical abuse, and trauma (Goode et al., 2018; Goode et al., 2020; Talleyrand, 2012), and is typically referred to as "stress eating" or "emotional eating" rather than disordered eating (Talleyrand, 2017). Water insecurity did not appear to differentially drive the outcome variables; the FI and LIS group had similarly low HWISE scores but had meaningfully different scores from each other on the outcome variables. This, again, may be because the HWISE does not capture access to water in a way that is as associated with food as much as it captures other elements of SES (e.g., hygiene). It is still

notable that overall, as water insecurity increased with other risk factors, eating pathology and perceived stress scores also became significant. This relationship could be better explored in future studies.

Strengths and Implications for intervention

Findings from this LPA yield meaningful implications at the intervention and policy levels. This study also has notable strengths. First, this study explores the relationship between water insecurity and ED risk which had not been done before. As mentioned, water insecurity did not appear to differentially drive the outcome variables as evidenced by the FI and LIS group having similarly low HWISE scores despite having significantly different scores from each other on eating pathology and perceived stress scores. It is still noteworthy that overall, as water insecurity increased with other risk factors, eating pathology and perceived stress scores also became significant.

Furthermore, features of the sample and research design of the current study are less common for the research constructs of focus, making this study rare. Studies that look at ED in women of color are often comparing ethnic groups of women, with White women being largest subsample (Egbert et al., 2022); rarely do we see papers on ED without a White female subsample let alone over 300 Black women participants (Gwira et al., 2022). Furthermore, it has been speculated that intersectionality theory pairs better intuitively with qualitative research than quantitative (Bauer et al., 2021), so this study offers an example of one way to use quantitative methods (e.g., LPA) for intersectional research.

Findings from this work can contribute to the growing evidence base for policy reform regarding food insecurity. At the time this study was conducted, there had not been any studies that focus on food insecurity and ED risk with exclusively Black female samples, let alone

exploring food insecurity in tandem with other intersectional stressors. This study illuminates an intersectional component to the food insecurity and ED phenomenon, another strength, that could have a meaningful impact on Black women's wellness. One practical way to have a meaningful impact is to establish a standard procedure of collecting data on college students' food insecurity, such as what GSU and Panther's Pantry accomplished and expanded to the greater Atlanta area (e.g., the Atlanta Community Food Bank; Panther's Pantry. [n.d.]). More universities could establish resources like Panther's Pantry if they do not already exist to hopefully meet the need of food insecure students as well as distribute ED prevention resources for students who utilize such services. Additionally, service workers involved in Black women's wellness and welfare can incorporate empathic, non-judgmental, and social-justice-informed ED education in existing programming that targets intersectional stress. This can include training service workers who interact with Black female patrons at food pantries on basic ED information and normalizing brief screenings for ED during Black women's healthcare visits.

Results confirm that Black women can develop ED, not as a function of individual identities but rather the stress of holding multiple marginalized identities as measured by gendered racism, food insecurity, water insecurity, and trauma exposure. The results also show that those with low measured stress on these factors have lower ED outcomes. Therapeutic interventions aimed at understanding subtleties of Black women's experiences and strengthening their resilience against social determinants of health and ED could be more present in Black women's mental health treatment. This can be done in a number of ways, but first clinicians ought to be educated about intersectionality and stress to provide insight to Black women's mental health concerns. This can be helpful especially when centering how these factors are linked to ED, not as a caveat to existing commonly known risk factors of ED (e.g., thin ideal;

Lovejoy, 2001). Eating disorder treatment is regarded as a specialty area for mental health treatment, which can unfortunately make it harder to access by those who are less familiar with the symptoms and harder to assess by those without training on it. Intersectionality and ED is only recently becoming a focal point in treatment even for specialists. If all clinicians, specialists and generalists, can have even basic information on the connection between intersectionality and ED, clients suffering could be better identified, referred accordingly, hopefully have a more well-rounded conceptualization of their disorder, and receive a more person-centered, social-justice-informed treatment. Some existing clinical resources that center intersectional stress as risk factors to ED include the BIPOC Eating Disorders Conference, Nalgona Positivity Pride, and Dr. Jennie Wang-Hall of Revolutionary Eating Disorder Psychotherapy and Consultation (Bipoc Eating Disorders Conference [n.d.]; Nalgona Positivity Pride.com [n.d.]; Revolutionary ED Psychotherapy [n.d.]).

Limitations and Future Directions

Results of this study are limited by a few factors. First, the features of the sample limit generalizability of the results. Sample size was smaller relative to the larger samples sizes typically observed with studies that employ LPA (e.g., $N = 4462$; Clark et al., 2015). While the sample size of 305 is within recommended sample size for LPA (e.g., 300-1000; Nylund-Gibson & Choi, 2018), it is still on the low end and limits the number of indicator variables that can be considered in the analysis. Because one of the recommendations for LPA is that substantial class sizes ought to be at least 25 people or >1% of the total sample; Spurk et al., 2020), it is possible that selection of four-class model was limited by sample size. That is, with a larger sample, a model with more than four classes could have been considered more seriously if those models had unique classes that were large enough. Additionally, as evidenced by data collected from

GSU, this sample may have higher than average food insecurity than other samples of other college women. As such, results of this study may not be generalizable to a larger population of Black college women.

More to this point: one goal of the current paper was to interrogate research narratives that solely emphasize Black women's protective factors and inadvertently minimize the risks that exists for Black women. However, the focus on one or the other (in the case of the current paper, focusing on risk factors over protective factors) creates more questions on what to do about Black women and ED. Because the LIS group had lower eating pathology and perceived stress scores, we can infer that efforts aimed at mitigating experiences with food insecurity, water insecurity, gendered racism, and trauma would be beneficial for all Black women. Larger and more complicated future study designs ought to investigate additional factors that may be protecting members of the LIS group (e.g., gender racial centrality, coping style; Lewis et al., 2017) while also uncovering more factors that may have been risks for the FI, HIS, and MIS group members.

Furthermore, the study is cross-sectional which limits inferences about causality. Some studies (e.g., Layland et al., 2022) that employ LPA have a longitudinal design and can both identify latent classes and observe participants' stability or change from one class to another based on changes in scores on repeated measures (Nylund-Gibson et al., 2023). As such, results of the current study could be strengthened by seeing how participants respond to the same measures over time. With a latent transition analysis (LTA), we could see how strong the association between class membership and ED outcomes are over time and explore the factors that could have led to an improvement or worsening of participants' intersectional stress via

changed class membership, thus having even more support for interventions and prevention ideas.

Future ED research should prioritize research designs and methodologies that can deepen our understanding of latent experiences for Black women. LPA and similar analyses (e.g., LCA, LTA) are being argued as useful tools for conducting necessary person-centered research for understanding intersectionality, modelling stigma, and illuminating mental health pipelines (Collins & Lanza, 2009; Layland et al., 2020). As such, using the same methodology as the current study with a larger sample and more indicator variables would offer a widened understanding of Black women's intersectionality and ED outcomes. Simone and colleagues' study (2022) measured 33 variables over time with a sample of 1,562 participants using conditional inference tree analyses. Reproducing their study with Black women, for example, could also be ideal for elucidating a wider range of subgroups and narratives of Black women's ED pathology. Furthermore, qualitative methodologies could also widen and deepen the knowledge-base of Black women's ED experiences and the nuanced ways intersectionality contributes to them.

The influence of water insecurity is still unknown; at best, the current study supports an argument to continue to explore the depth of the relationship. Research on water insecurity is still in its infancy. Given the link between water and food insecurity (Young & Miller, 2022), and the now evident link between ED and food insecurity (Hazzard et al., 2020), it could be imperative to continue to extend the food insecurity research to include water insecurity as well.

Conclusion

The current study shows gendered racism, food insecurity, and trauma, known risk factors for ED among Black women independently, as well as water insecurity, have an impact

on ED and stress outcomes when working in tandem. Results of the LPA extend current understandings of ED for Black women, suggesting foci for intersectionality-informed prevention and treatment efforts that may otherwise go overlooked. Results also maintain the need for more research on an intersectionality paradigm in ED work to continue seeking insight on how ED affects various groups.

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Table 1

Descriptive information for total sample (N = 305)

Sociodemographic factors	*n/M (SD)*	% of subsample
U.S. nativity		
Yes	267	87.5
No	38	12.5
Ethnicity		
African	61	20
Black American	203	66.6
Caribbean	33	10.8
Latinx	16	5.2
Mixed race/ethnicity	44	14.4
Gender Identity		
Cisgender woman	282	92.5
Genderqueer	16	5.2
Transgender Woman	8	2.6
Other	4	1.3
Relationship and/or sexual orientation		
Asexual	18	5.9
Aromantic	0	0
Bisexual	35	11.5
Demisexual	2	.7
Gay	2	.7
Heterosexual	219	71.8
Lesbian	14	4.6
Pansexual	5	1.6
Polyamorous	2	.7
Queer	3	1
Questioning	5	1.6
Don't Know	3	1
Other	5	1.6
Prefer not to say	4	1.3
SES	5.82 (1.44) = slightly above middle class	
Family of immigrants		
1st generation (at least one parent is an immigrant)	119	39
2nd generation (at least one grandparent is an immigrant)	21	6.9
3rd generation (at least one great grandparent is an immigrant)	12	3.9
Unsure	12	3.9
No	141	46.2

Highest level of education		
Some high school, no diploma	4	1.3
High school graduate, diploma or the equivalent (for example: GED)	43	14.1
Some college credit, no degree	147	48.2
Associate's degree	65	21.3
Bachelor's degree	45	14.8
Master's degree	1	.3

Table 2

Fit indices for models with two through seven latent classes

Class solution	AIC	BIC	SABIC	Entropy
2 classes	37.95.660	3844.794	3802.794	.98
3 classes	3635.766	3702.731	3645.644	.99
4 classes	**3495.987**	**3581.554**	**3508.609**	**.95**
5 classes	3414.437	3518.606	3429.804	.96
6 classes	3374.044	3496.814	3392.154	.96
7 classes	3314.935	3456.307	3335.789	.97

Note. AIC = Akaike's Information Criterion, BIC = Bayesian Information Criterion, SABIC = Sample-Size Adjusted BIC.

Figure 1

Profiles in the four-class model

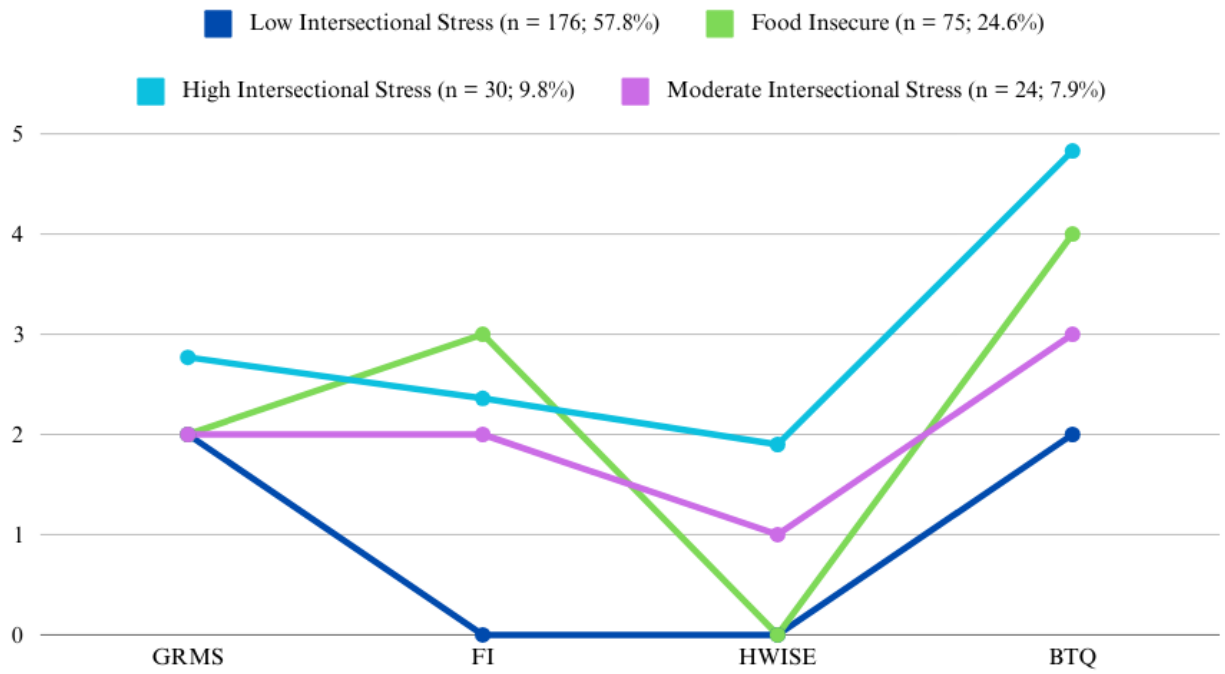


Table 3

Correlation and Chi-Square results

		GRMS	PSS	FI	EDEQ	HWISE	BTQ	Ethnicity	U.S. nativity
GRMS	Pearson Correlation	1	.425**	.267**	.466**	.342**	.316**		
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	<.001		
	N	305	305	305	305	305	305		
PSS	Pearson Correlation	.425**	1	.242**	.422**	.152**	.159**		
	Sig. (2-tailed)	<.001		<.001	<.001	.008	.005		
	N	305	305	305	305	305	305		
FI	Pearson Correlation	.267**	.242**	1	.225**	.280**	.260**		
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	<.001		
	N	305	305	305	305	305	305		
EDEQ	Pearson Correlation	.466**	.422**	.225**	1	.273**	.232**		
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001		
	N	305	305	305	305	305	305		
HWISE	Pearson Correlation	.342**	.152**	.280**	.273**	1	.182**		
	Sig. (2-tailed)	<.001	.008	<.001	<.001		.001		
	N	305	305	305	305	305	305		
BTQ	Pearson Correlation	.316**	.159**	.260**	.232**	.182**	1		
	Sig. (2-tailed)	<.001	.005	<.001	<.001	.001			
	N	305	305	305	305	305	305		
Ethnicity	Pearson Chi-Square	322.885	157.201**	18.292	420.211	138.639*	41.516	1	
	Sig. (2-sided)	.941	<.001	.307	.945	.025	.926		
	N	305	305		305	305	305	305	
U.S. nativity	Pearson Chi-Square	97.792	17.795	3.017	123.919	21.138	7.908	42.513**	1
	Sig. (2-sided)	.294	.851	.555	.313	.780	.894	<.001	
	N	305	305	305	305	305	305	305	305

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table 4

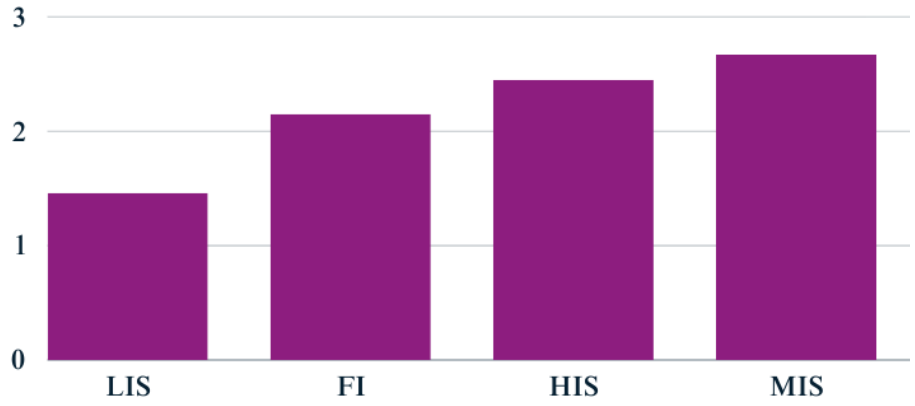
Sociodemographic characteristics by latent class.

Sociodemographic factors *(n)*	LIS *N* = 176 57.8%	FI *N* = 75 24.6%	HIS *N* = 30 9.8%	MIS *N* = 24 7.9%	$\chi 2$, p-value
U.S. nativity					1.330,
Yes	151	68	27	21	p = .722
No	25	7	3	3	(ns)
Ethnicity					17.527,
African	22	6	2	7	p = .131
Black American	96	44	18	9	(ns)
Caribbean	14	3	1	1	
Latinx	3	0	2	1	
Mixed race/ethnicity	41	22	7	6	

Note. Low Intersectional Stress (LIS); Food Insecure (FI); High Intersectional Stress (HIS); and Moderate Intersectional Stress (MIS); ns = nonsignificant.

Figure 2

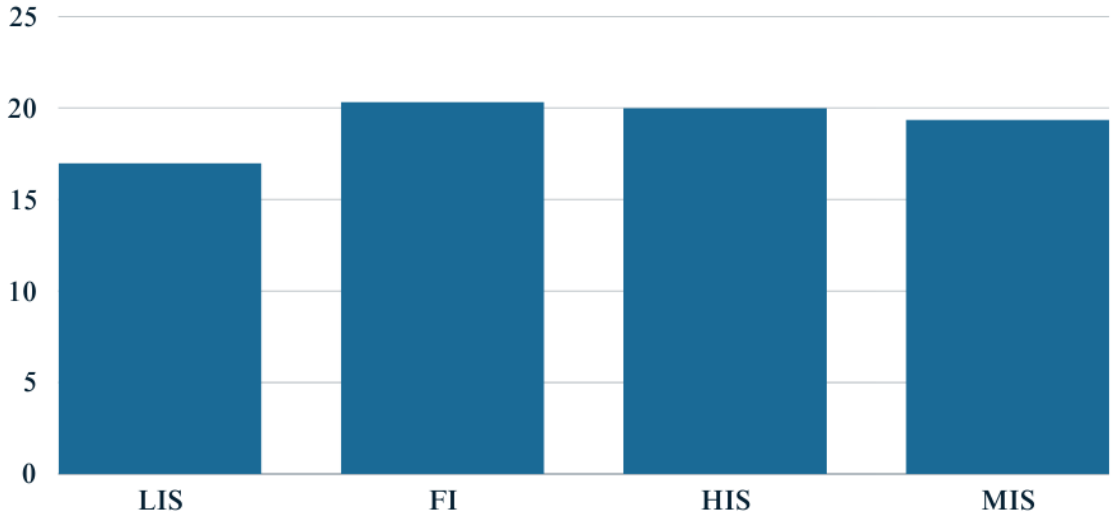
EDEQ mean scores per profile



Note. Low Intersectional Stress (LIS; *n* = 176; 57.8%; *M* = 1.46) Food Insecure (*n* = 75; 24.6%; *M* = 2.15) High Intersectional Stress (*n* = 30; 9.8%; *M* = 2.45) Moderate Intersectional Stress (*n* = 24; 7.9%; *M* = 2.67)

Figure 3

PSS mean scores per profile



Note. Low Intersectional Stress (LIS; *n* = 176; 57.8%; *M* = 16.92) Food Insecure (*n* = 75; 24.6%; *M* = 20.34) High Intersectional Stress (*n* = 30; 9.8%; *M* = 20.21) Moderate Intersectional Stress (*n* = 24; 7.9%; *M* = 19.37)

APPENDICES

Appendix A

Chapter 1 Coding Manual

Basic info
Your name _____
ID Article code (e.g., 2, 8, 15). _____
Academic discipline
- Psychology
- Medicine
- Public Health
- Nursing
- Social Work
- Biology
- Health Sciences
- Sociology
- Other

Research design
- Case Study
- Clinical Trial
- Mixed methods
- Quantitative
- Qualitative
- Other

What is the age of the sample
- adults
- adolescents
- both adults and adolescents
- pre-adolescent children
- older adults
- other

What kind of sample is measured
- Community-based sample
- Clinical sample
- College students
- other

Which DSM does this study refer to for diagnostic criteria?
- 1
- 2
- 3
- 4
- 5
- not reported

Does this study measure BMI? even if just as a control
- yes
- no

If "Does this study measure BMI? even if just as a control" = yes
BMI reported What is the mean BMI of the sample?_____
Sample size _____
Ethnicity
Please report the specific ethnic group/s reported in the study as well as the total number or percentage if reported (e.g., 14% (*n* =25) were Mexican American; 75% (*n* =144) were Caribbean American, 50% (*n* =200) were Chinese American)
none reported
Please write _____
Does this paper focus on intersectional identities other than race/ethnicity and gender? (e.g., looking at black women who are also queer, adolescent, have a health condition, etc.)
yes
no
If yes, what other identities are of focus?
acculturation status
(dis)ability (e.g., health condition - obesity and overweight counted here)
age
class and/or SES
indigenous heritage
nationality
religion
sexual orientation
U.S. region
other
What racial/ethnic group is your paper focusing on?
Black women
Latinx/Hispanic women
Asian women
For research on Black or Latinx/Hispanic or Asian women, what were the variables? Code method section for what is actually being measured.
Predictor/IV _____
Predictor/IV _____
Predictor/IV _____
Predictor/IV _____
Predictor/IV _____
Predictor/IV _____
Predictor/IV _____
Predictor/IV _____
Predictor/IV _____
Outcome/DV _____
Outcome/DV _____
Outcome/DV _____
Outcome/DV _____
Outcome/DV _____
Outcome/DV _____
Outcome/DV _____

Outcome/DV _____
Outcome/DV _____
Outcome/DV _____
qualitative question (e.g., interview question) _____
qualitative question (e.g., interview question) _____
qualitative question (e.g., interview question) _____
qualitative question (e.g., interview question) _____
mediator_____
mediator _____
mediator _____
mediator _____
mediator _____
mediator _____
mediator _____
moderator _____
moderator _____
moderator _____
moderator _____
moderator _____
moderator _____
moderator _____
control _____
control _____
control _____
control _____
control _____
control _____
control _____
control _____
control _____
case study variables/topics_____
other - if using because you ran out of slots, please label what kind of variable you are putting here (e.g., depression - moderator) _____

Please report the results of the study

Case Study - report client outcomes (i.e., change in symptoms, major takeaways from clinician's conceptualization, etc.) _____
Clinical Trial - report outcome of the intervention_____
Literature review - report major findings_____
Mixed methods - report results _____
Quantitative - report the major findings_____
Qualitative - report themes_____
other _____

Structured Categorization Matrix for coding use of intersectionality theory

Do these authors use intersectionality theory to inform the study?

Select “Yes” only if they use the term "intersectionality" or related terminology (e.g., “intersecting identities" or "intersection of x and y identities", etc.) AND reference Kimberlé Crenshaw or Patricia Hill Collins intersectionality work.

Select "Used the term" if you search and find use of "intersectionality" or related terminology to describe the current study but no citation for Crenshaw or Hill, please

Select “No” if there is no use of the term "intersectionality" or related terminology in the current study

If you answered yes, at what level does the study apply intersectionality theory – weak, strong, transformative (Shin et al., 2017)

Weak - scholarship that **considers the unique outcomes produced by "interesting" social identities, but fails to provide an interrogation of larger systems of inequality** (i.e., an identitarian approach). For instance, a study investigating the relationship between racial microaggressions and masculinity threat among a sample of high achieving, LGB identified Black high school students that does not at least acknowledge the potential influence of systemic oppression would be considered weak (Shin et al., 2017).

Strong - scholarship which **foregrounds relationships and outcomes among intersecting social categories and critiques interlocking forms of power and privilege**. For instance, in the example above, if the authors provided a critique of how historical factors like Jim Crow intersect with contemporary racism, whiteness, and heteronormativity to produce unique experiences for Black men (Carbado, 2013), the piece would be considered strong intersectionality (Shin et al., 2017).

Transformative - scholarship that **analyzes the relationships between multiple social identities and structural inequality and explicitly calls for social justice action aimed at dismantling systems of oppression.** Returning to the hypothetical study, if it provided an explicit call for counseling psychologists to participate in systemic, social justice-oriented interventions to reduce the effects of intersecting oppressions on high achieving, LGB Black high school students, it would be classified as transformative intersectionality (Shin et al., 2017).

Appendix B

Chapter Two Measures

B1. Demographics

1. What is your ethnicity?
    a. African
    b. Black American
    c. Caribbean
    d. Latinx
    e. Mixed Race
    f. Other _____ (Open Response)
2. How do you currently describe your gender identity?
    1. Cisgender Woman (Assigned Female at Birth)
    2. Genderqueer (Nonbinary, combination of any and all genders)
    3. Transgender Woman
    4. Other: _____ (Open Response)
2. How do you currently describe your relationship and/or sexual orientation?
    1. Asexual
    2. Aromantic
    3. Bisexual
    4. Demisexual
    5. Gay
    6. Heterosexual
    7. Lesbian
    8. Pansexual
    9. Polyamorous
    10. Queer
    11. Questioning
    12. Don't Know
    13. Other: _____ (Open Response)
3. What is your family income?
    1. $_____
    2. Unknown/Prefer not to state
4. Have you ever experienced food insecurity?
    1. Yes in the past
    2. Yes currently
    3. Yes in the past and currently
    4. No
5. What is your age?
    1. 18-24
    2. 25-34
    3. 35-44
    4. 45-54
    5. 55-64
    6. 65-74
    7. 75-older

6. Were you born in the United States?
    1. Yes
    2. No
7. Do you come from a family of immigrants?
    1. 1st generation (at least one parent is an immigrant)
    2. 2nd generation (at least one grandparent is an immigrant)
    3. 3rd generation (at least one great grandparent is an immigrant)
    4. Unsure or unapplicable
8. What is your highest level of education?
    1. No schooling completed
    2. Nursery school to 8th grade
    3. Some high school, no diploma
    4. High school graduate, diploma or the equivalent (for example: GED)
    5. Some college credit, no degree
    6. Trade/technical/vocational training
    7. Associate degree
    8. Bachelor's degree
    9. Master's degree
    10. Applied or Professional degree
    11. Doctorate degree
9. Do you have any mental illnesses?
    1. Yes, diagnosed by a licensed professional or doctor
    2. Yes, diagnosed by some other professional
    3. Yes, self-diagnosed
    4. No
10. If your answer was "Yes", please select all that apply.
    1. Alcohol/Substance Abuse/Dependence
    2. Anxiety Disorders
    3. ADHD/ADD
    4. Depression
    5. Eating Disorders
    6. Generalized Anxiety Disorders
    7. OCD
    8. Panic Disorder
    9. PTSD
    10. Schizophrenia
    11. Seasonal Affective Disorder
    12. Social Anxiety Phobia
    13. Depersonalization Disorder
    14. Dissociative Disorders
    15. Sleep and Wake Disorders
    16. Autism Spectrum Disorders
    17. Personality Disorders
    18. Other Mental Disorders: _____ (Open Response)
11. Do you engage in "stress eating" or "emotional eating"?
    1. Yes

    2. No

12. Do you have an eating disorder?
    1. Yes, diagnosed by a licensed professional or doctor
    2. Yes, diagnosed by some other professional
    3. Yes, self-diagnosed
    4. No

13. If yes, please write which eating disorder you have: _____

11. Is English your first language?
    1. Yes
    2. No

12. What is your major or program of study?
    1. _____ (Open Response)

13. What degree are you currently seeking?
    1. Associates
    2. Bachelors
    3. Masters
    4. Doctorate
    5. Juris Doctor (JD)
    6. Other _____ (Open Response)

B2. Brief Trauma Questionnaire (Schnurr et al., 2002).

The following questions ask about events that may be extraordinarily stressful or disturbing for almost everyone. Please circle "Yes" or "No" to report what has happened to you.

If you answer "Yes" for an event, please answer any additional questions that are listed on the right side of the page to report: (1) whether you thought your life was in danger or you might be seriously injured; and (2) whether you were seriously injured.

If you answer "No" for an event, go on to the next event.

Event	Has this ever happened to you?	If the event happened, did you think your life was in danger or you might be seriously injured?	If the event happened, were you seriously injured?
1. Have you ever served in a war zone, or have you ever served in a noncombat job that exposed you to war-related casualties (for example, as a medic or on graves registration duty?)	No Yes	No Yes	No Yes
2. Have you ever been in a serious car accident, or a serious accident at work or somewhere else?	No Yes	No Yes	No Yes
3. Have you ever been in a major natural or technological disaster, such as a fire, tornado, hurricane, flood, earthquake, or chemical spill?	No Yes	No Yes	No Yes
4. Have you ever had a life-threatening illness such as cancer, a heart attack, leukemia, AIDS, multiple sclerosis, etc.?	No Yes	No Yes	N/A
5. Before age 18, were you ever physically punished or beaten by a parent, caretaker, or teacher so that: you were very frightened; or you thought you would be injured; or you received bruises, cuts, welts, lumps or other injuries?	No Yes	No Yes	No Yes
6. Not including any punishments or beatings you already reported in Question 5, have you ever been attacked, beaten, or mugged by anyone, including friends, family members or strangers?	No Yes	No Yes	No Yes
7. Has anyone ever made or pressured you into having some type of unwanted sexual contact?	No Yes	No Yes	No Yes

Note: By sexual contact we mean any contact between someone else and your private parts or between you and some else's private parts			
8. Have you ever been in any other situation in which you were seriously injured, or have you ever been in any other situation in which you feared you might be seriously injured or killed?	No Yes	N/A	No Yes
9. Has a close family member or friend died violently, for example, in a serious car crash, mugging, or attack?	No Yes	N/A	No Yes
10. Have you ever witnessed a situation in which someone was seriously injured or killed, or have you ever witnessed a situation in which you feared someone would be seriously injured or killed? Note: Do not answer "yes" for any event you already reported in Questions 1-9	No Yes	N/A	N/A

B3. Gendered Racial Microaggressions Scale (Lewis & Neville, 2015). Permission was acquired for use of this scale.

Directions. Please think about your experiences **as a Black woman**. Please read each item and think of how often each event has happened to you **in your lifetime**. In addition, please rate how stressful each experience was for you. Stressful can include feeling upset, bothered, offended, or annoyed by the event.

Frequency

0	***1***	***2***	***3***	***4***	***5***
Never	Less than once a year	***A*** few times a year	About once a month	A few times a month	Once a week or more

Appraisal

0	***1***	***2***	***3***	***4***	***5***
This has never happened to me	Not at all Stressful	Slightly Stressful	Moderately Stressful	Very Stressful	Extremely Stressful

Based on my experiences as a Black woman...

Item	Frequency	Appraisal
1. Someone accused me of being angry when I was speaking in a calm manner.		
2. Someone assumed that I did not have much to contribute to the conversation.		
3. I have been told that I am too independent.		
4. Someone has made me feel unattractive because I am a Black woman.		
5. In talking with others, someone has told me to calm down.		
6. My comments have been ignored in a discussion in a work, school, or other professional setting.		
7. I have been told that I am too assertive.		
8. Someone has made a sexually inappropriate comment about my butt, hips, or thighs.		
9. I have been perceived to be an "angry black woman."		
10. Someone has challenged my authority in a work, school, or other professional setting.		
11. Someone made a negative comment to me about my skin color/skin tone.		
12. Someone made me feel exotic as a Black woman.		
13. Someone has imitated the way they think Black women speak in front of me (for example, "g-i-r-l-f-r-i-e-n-d").		
14. I have been disrespected by people in a work, school, or other professional setting.		

15. Someone made me feel unattractive because of the size of my butt, hips, or thighs.
16. I have been assumed to be a strong Black woman.
17. Someone has assumed that I should have a certain body type because I am a Black woman.
18. I have felt unheard in a work, school, or other professional setting.
19. I have received negative comments about my hair when I wear it in a natural hairstyle.
20. I have been told that I am sassy and straightforward.
21. Someone objectified me based on my physical features as a Black woman.
22. I have felt someone has tried to "put me in my place" in a work, school, or other professional setting.
23. Someone assumed I speak a certain way because I am a Black woman.
24. I have felt excluded from networking opportunities by White co-workers.
25. I have received negative comments about the size of my facial features.
26. Someone perceived me to be sexually promiscuous (sexually loose).

B4. Six-Item Standard Measure from USDA Economic Research Service (Blumberg et al., 1999).

For these statements, please tell me whether the statement was often true, sometimes true, or never true for (you/your household) in the last 12 months.

1. “The food that (I/we) bought just didn’t last, and (I/we) didn’t have money to get more.”
   [] Often true
   [] Sometimes true
   [] Never true
   [] DK or Refused
2. “(I/we) couldn’t afford to eat balanced meals
   [] Often true
   [] Sometimes true
   [] Never true
   [] DK or Refused
3. In the last 12 months, since last (name of current month), did (you/you or other adults in your household) ever cut the size of your meals or skip meals because there wasn't enough money for food?
   [] Yes, almost every month
   [] Yes, some months but not every month
   [] Yes, only 1 or 2 months
   [] No
4. IF YES ABOVE: How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
   [] Almost every month
   [] Some months but not every month
   [] Only 1 or 2 months
   [] DK
5. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?
   [] Yes
   [] No
   [] DK
6. In the last 12 months, were you every hungry but didn't eat because there wasn't enough money for food?
   [] Yes
   [] No
   [] DK

B5. HWISE Scale (Young et al., 2019).

Each item is phrased to capture experiences that anyone in the household has had in the last four weeks. Responses to items are: never (0 times), rarely (1–2 times), sometimes (3–10 times), often (11-20 times), and always (more than 20 times). Never is scored as 0, rarely is scored as 1, sometimes is scored as 2, and often/always is scored as 3.

LABEL	ITEM	Score
Worry	1. In the last 4 weeks, how frequently did you or anyone in your household worry you would not have enough water for all of your household needs?	
Interrupt	2. In the last 4 weeks, how frequently has your main water source been interrupted or limited (e.g., water pressure, less water than expected, river dried up)?	
Clothes	3. In the last 4 weeks, how frequently have problems with water meant that clothes could not be washed?	
Plans	4. In the last 4 weeks, how frequently have you or anyone in your household had to change schedules or plans due to problems with your water situation? (Activities that may have been interrupted include caring for others, doing household chores, agricultural work, income-generating activities, sleeping, etc.)	
Food	5. In the last 4 weeks, how frequently have you or anyone in your household had to change what was being eaten because there were problems with water (e.g., for washing foods, cooking, etc.)?	
Hands	6. In the last 4 weeks, how frequently have you or anyone in your household had to go without washing hands after dirty activities (e.g., defecating or changing diapers, cleaning animal dung) because of problems with water?	
Body	7. In the last 4 weeks, how frequently have you or anyone in your household had to go without washing their body because of problems with water (e.g., not enough water, dirty, unsafe)?	
Drink	8. In the last 4 weeks, how frequently has there not been as much water to drink as you would like for you or anyone in your household?	
Angry	9. In the last 4 weeks, how frequently did you or anyone in your household feel angry about your water situation?	
Sleep	10. In the last 4 weeks, how frequently have you or anyone in your household gone to sleep thirsty because there wasn't any water to drink?	
None	11. In the last 4 weeks, how frequently has there been no useable or drinkable water whatsoever in your household?	
Shame	12. In the last 4 weeks, how frequently have problems with water caused you or anyone in your household to feel ashamed/excluded/stigmatized?	

B6. Eating Disorder examination questionnaire (EDE-Q 6.0)

EATING QUESTIONNAIRE

Instructions: The following questions are concerned with the past four weeks (28 days) only. Please read each question carefully. Please answer all of the questions. Please only choose one answer for each question. Thank you.

Questions 1 to 12: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days) only.

	On how many of the past 28 days	No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every day
1	Have you been deliberately trying to limit the amount of food you eat to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
2	Have you gone for long periods of time (8 waking hours or more) without eating anything at all in order to influence your shape or weight?	0	1	2	3	4	5	6
3	Have you tried to exclude from your diet any foods that you like in order to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
4	Have you tried to follow definite rules regarding your eating (for example, a calorie limit) in order to influence your shape or weight (whether or not you have succeeded)?	0	1	2	3	4	5	6
5	Have you had a definite desire to have an empty stomach with the aim of influencing your shape or weight?	0	1	2	3	4	5	6
6	Have you had a definite desire to have a totally flat stomach?	0	1	2	3	4	5	6
7	Has thinking about food, eating or calories made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?	0	1	2	3	4	5	6
8	Has thinking about shape or weight made it very difficult to concentrate on things you are interested in (for example, working, following a conversation, or reading)?	0	1	2	3	4	5	6
9	Have you had a definite fear of losing control over eating?	0	1	2	3	4	5	6
10	Have you had a definite fear that you might gain weight?	0	1	2	3	4	5	6
11	Have you felt fat?	0	1	2	3	4	5	6
12	Have you had a strong desire to lose weight?	0	1	2	3	4	5	6

Questions 13-18: Please fill in the appropriate number in the boxes on the right. Remember that the questions only refer to the past four weeks (28 days).

	Over the past four weeks (28 days).....							
13	Over the past 28 days, how many times have you eaten what other people would regard as an unusually large amount of food (given the circumstances)?							

14	....On how many of these times did you have a sense of having lost control over your eating (at the time that you were eating)?							
15	Over the past 28 days, on how many **DAYS** have such episodes of overeating occurred (i.e. you have eaten an unusually large amount of food and have had a sense of loss of control at the time)?							
16	Over the past 28 days, how many times have you made yourself sick (vomit) as a means of controlling your shape or weight?							
17	Over the past 28 days, how many times have you taken laxatives as a means of controlling your shape or weight?							
18	Over the past 28 days, how many times have you exercised in a "driven" or "compulsive" way as a means of controlling your weight, shape or amount of fat or to burn off calories?							
Questions 19-21: Please circle the appropriate number. Please note that for these questions the term "binge eating" means eating what others would regard as an unusually large amount of food for the circumstances, accompanied by a sense of having lost control overeating.								
19	Over the past 28 days, on how many days have you eaten in secret (i.e., furtively)?.....Do not count episodes of binge eating	No days	1-5 days	6-12 days	13-15 days	16-22 days	23-27 days	Every day
		0	1	2	3	4	5	6
20	On what proportion of the times that you have eaten have you felt guilty (felt that you've done wrong) because of its effect on your shape or weight? .....Do not count episodes of binge eating	None of the times	A few of the times	Less than half	Half of the times	More than half	Most of the time	Every time
		0	1	2	3	4	5	6
21	Over the past 28 days, how concerned have you been about other people seeing you eat? .....Do not count episodes of binge eating	Not at all		Slightly		Moderately		Markedly
		0	1	2	3	4	5	6
Questions 22-28: Please circle the appropriate number on the right. Remember that the questions only refer to the past four weeks (28 days)								
22	Has your weight influenced how you think about (judge) yourself as a person?	Not at all		Slightly		Moderately		Markedly
		0	1	2	3	4	5	6
23	Has your shape influenced how you think about (judge) yourself as a person?	0	1	2	3	4	5	6
24	How much would it have upset you if you had been asked to weigh yourself once a week (no more, or less, often) for the next four weeks?	0	1	2	3	4	5	6
25	How dissatisfied have you been with your weight?	0	1	2	3	4	5	6
26	How dissatisfied have you been with your shape?	0	1	2	3	4	5	6
27	How uncomfortable have you felt seeing your body (for example, seeing your shape in the mirror, in a shop window reflection, while undressing or taking a bath or shower)?	0	1	2	3	4	5	6
28	How uncomfortable have you felt about others seeing your shape or figure (for example, in communal changing rooms, when swimming, or wearing tight clothes)?	0	1	2	3	4	5	6
What is your weight at present? (Please give your best estimate).								
What is your height? (Please give your best estimate).								

If you get a menstrual cycle: Over the past three-to-four months have you missed any menstrual periods?	
	If so, how many?
	Have you been taking the “pill”?
THANK YOU	

B7. Perceived Stress Scale

The Perceived Stress Scale (PSS) is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress. The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way; rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:
0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

____ l. In the last month, how often have you been upset because of something that happened unexpectedly?

____ 2. In the last month, how often have you felt that you were unable to control the important things in your life?

____ 3. In the last month, how often have you felt nervous and stressed?

____ 4. In the last month, how often have you felt confident about your ability to handle your personal problems?

____ 5. In the last month, how often have you felt that things were going your way?

____ 6. In the last month, how often have you found that you could not cope with all the things that you had to do?

____ 7. In the last month, how often have you been able to control irritations in your life?

____ 8. In the last month, how often have you felt that you were on top of things?

____ 9. In the last month, how often have you been angered because of things that happened that were outside of your control?

____ 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?