Binge eating and binge-eating disorder in Black women: A systematic review

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Abstract

Objective: Although several effective behavioral treatments for binge-eating disorder (BED) exist, there are racial disparities in treatment access, with African-Americans and/or Black individuals having some of the lowest rates of access to care. Little is known about the experience and treatment of binge eating (BE) and BED among Black women.

Method: This systematic review, conducted according to PRISMA guidelines, synthesizes information related to BE and BED in Black women.

Results: A total of N = 38 studies met our eligibility criteria. We did not identify any systematic risk of bias across studies. The majority of included studies used cross-sectional survey methodology, and relied on interview (EDE) and self-report measures (particularly the Binge Eating Scale, BES) for the assessment of BE. Outcomes were inconsistently measured across trials, and there are limited data on the results of evidence-based treatments for BE/BED in Black women.

Discussion: Although Black women have similar or higher rates of BE than White women, most research on BE and BED has focused on White women, with Black individuals underrepresented in clinical trials. Future research should examine evidence-based treatments to prevent and treat BED in this population.

Objetivo: Aunque existen varios tratamientos conductuales que son efectivos para el Trastorno de Atracones (BED, por sus siglas en inglés), existen disparidades raciales en el acceso a tratamiento, con individuos Afroamericanos y/o personas de color teniendo algunas de las tasas más bajas de acceso al cuidado de la salud. Se sabe muy poco acerca de la experiencia y tratamiento del comer en atracones (BE, por sus siglas en inglés) y BED entre mujeres afroamericanas y/o de color.

Método: Esta revisión sistemática, realizada bajo lineamientos de las guías PRISMA, sintetiza información relacionada con BE y BED en mujeres afroamericanas y/o de color.

Resultados: Un total de N = 38 estudios cumplieron con nuestros criterios de elegibilidad. No identificamos ningún riesgo sistemático de sesgo entre los estudios. La mayoría de los estudios incluidos utilizaron una metodología de encuesta transversal y se basaron en la entrevista (EDE) y las medidas de autoinforme (en particular, la Binge Eating Scale, BES) para la evaluación de BE. Los resultados se midieron de

manera inconsistente entre los ensayos, y hay datos limitados sobre los resultados de los tratamientos basados en la evidencia para BE/BED en mujeres afroamericanas y/o de color.

Discusión: Aunque las mujeres afroamericanas y/o de color tienen tasas similares o más altas de BE que las mujeres blancas, la mayoría de las investigaciones sobre BE y BED se han centrado en las mujeres blancas, con individuos afroamericanos y/o de color subrepresentados en ensayos clínicos. La investigación futura debería examinar los tratamientos basados en la evidencia para prevenir y tratar el BED en esta población.

KEYWORDS

African-American women, binge eating, binge eating disorder, Black, systematic review

1 | INTRODUCTION

Binge eating (BE) is characterized by patterns of eating more than a person would typically eat in a discrete period, while experiencing a sense of loss of control (American Psychiatric Association, 2013). Recurrent BE is a key behavior of binge-eating disorder (BED) (American Psychiatric Association, 2013), which is defined as recurrent BE (occurring at least once a week for 3 months) while concurrently experiencing loss of control and marked distress, in the absence of regular compensatory behaviors for weight loss (American Psychiatric Association, 2013; Udo et al., 2016). BED is the most common eating disorder across all racial and ethnic groups in the United States (Hudson, Hiripi, Pope Jr., & Kessler, 2007; Taylor, Caldwell, Baser, Faison, & Jackson, 2007), affecting between 0.85 and 2.6% of the nation's population (Kessler et al., 2013; Udo & Grilo, 2018). Moreover, BED is often comorbid with multiple somatic and psychiatric conditions, including obesity, metabolic syndrome, substance use disorders, and mood disorders (Hudson et al., 2007; Hudson et al., 2010; Taylor et al., 2007; Thornton et al., 2017; Welch et al., 2016).

Compared with White women, recent studies report similar or higher rates of BE in Black women (Lydecker & Grilo, 2016; Marques et al., 2011; Udo et al., 2016). In studies assessing BE within specific racial groups, the prevalence of this behavior among Black women was nearly 5%, compared with 2.5% in Non-Hispanic, White women (Goode et al., 2018b; Marques et al., 2011; Striegel-Moore, Wilfley, Pike, Dohm, & Fairburn, 2000). Furthermore, the prevalence of BE in women with obesity is even higher; estimates indicate that more than 30% of Black women with obesity also report BE (Mazzeo, Saunders, & Mitchell, 2005; Wilson et al., 2012).

Several effective behavioral treatments for BE and BED (e.g., behavioral weight loss [BWL], cognitive-behavioral therapy [CBT], interpersonal psychotherapy [IPT]) (Grilo, Masheb, Wilson, Gueorguieva, & White, 2011; Tanofsky-Kraff et al., 2013) exist. However, Black individuals have lower rates of access to care for eating disorders, compared with Non-Hispanic, Whites (Marques et al., 2011; Pike, Dohm, Striegel-Moore, Wilfley, & Fairburn, 2001; Scott, Gil-Rivas, & Cachelin, 2018). Furthermore, BE and BED may be more

severe among Black women who do not access treatment; for example, in one study, Black women receiving treatment for BED demonstrated less pretreatment BE than nontreatment seeking Black controls who also had BED (Grilo, Lozano, & Masheb, 2005; Scott et al., 2018). Early detection and intervention with this population might be a critical first step toward prevention and improvement of access to care for individuals with BE and BED (Ivezaj, Kalebijan, Grilo, & Barnes, 2014).

This article systematically reviews the empirical studies that have included Black women and addressed: (a) the prevalence of BE and BED; (b) racial differences in the nature and course of BE-pathology; (c) factors influencing the development of BE and BED; (d) evidence-based treatments; (e) access and participation in treatment for BE and BED; and (f) methodological limitations of the current scientific literature. We summarize specific challenges in the treatment of BE and BED among Black women and discuss future research opportunities and key areas for increased focus.

2 | METHODS

This systematic review was conducted in concordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) (Moher, Liberati, Tetzlaff, Altman, & Group, 2009).

2.1 | Eligibility criteria

Studies were independently examined for eligibility by two reviewers (R.G. and M.C.) according to the PICOS criteria (Liberati et al., 2009). To determine studies that met our inclusion and exclusion criteria, we used the PICOTS (population, interventions, comparators, outcomes, timing, settings, and study designs) approach. The desired population of interest was Black women with reported BE behaviors and/or a diagnosis of BED. We included case-control, secondary analyses, intervention studies with psychological or behavioral treatment, and cross-sectional evaluations that reported outcomes in the desired population.

Eligible and included studies were: (a) published up to 2019; (b) written in the English language; (c) restricted to participants ≥18 years; (d) original articles published in peer-reviewed journals; and (e) reporting outcomes of binge eating in Black women. Exclusion criteria were: (a) case studies or studies with a sample size smaller than five; (b) and reviews, meta-analyses, commentaries, letters to the editor, books or book chapters, abstracts, and clearly irrelevant papers. Studies that included Black participants, but that did not report any outcomes or analyses with reference to race, were excluded. The decision to include or exclude studies was initially made based on the article title, then its abstract, and finally the full-text article. There were no limitations on setting, or study duration.

2.2 Information sources and search

We conducted literature searches up to and including October 2019 in the following electronic databases: PsycINFO, PubMed, Scopus, Web of Science, MEDLINE, and Google Scholar. Search terms included "African-American," OR "Black woman," AND "binge eating," OR "eating disorder," OR "binge eating disorder," OR "disordered eating behaviors." Reference lists of published papers were also screened to identify additional articles meeting eligibility criteria.

2.3 | Selection

The process for study selection is summarized in Figure 1. One reviewer (MC) conducted an initial search for articles based upon our inclusion/exclusion criteria based on titles and abstracts. For each study, two independent reviewers (M.C. and C.C.L.) rated the risks of selection, performance, attrition, detection, and outcome reporting bias. Following this search, the reviewers rated whether studies met inclusion criteria by: (a) reviewing titles and abstracts, and (b) conducting a full-text review. Disagreements were resolved by consensus discussion.

Following study selection, the following variables were extracted independently by three authors (M.C., A.F., O.O.) from each paper: study design, number of participants, mean age (SD), mean BMI (SD), percentage of Black women in the sample, prevalence of BE in Black women, sample characteristics, measurement of BE, and outcomes in Black women (Table 1).

2.3.1 | Risk of bias in individual studies

We conducted a quality rating to assess the risk of bias in individual studies that met eligibility criteria by using the Kmet form for quantitative analysis (Kmet, Lee, & Cook, 2004). This tool assesses the

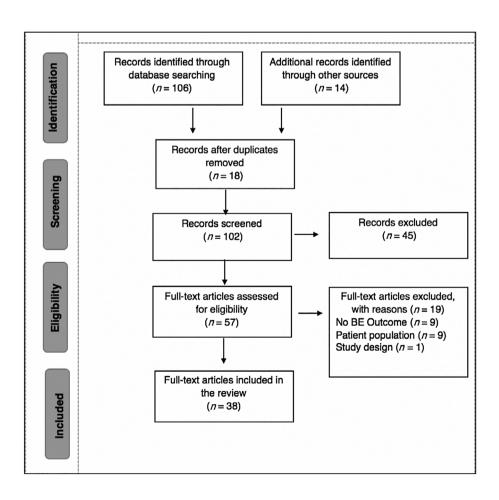


FIGURE 1 PRISMA diagram of systematic review study selection process; BE, binge eating

quality of studies on 11 different criteria in relation to the study design, methods, reporting of results, and study conclusions. For each criterion, every study was given a score of 0, 1, or 2, with a maximum score of 22 (see Appendix S1).

3 | RESULTS

Fifty-seven articles met the outlined inclusion criteria. Nineteen of these were subsequently excluded due to the lack of a BE outcome (n=9), patient population (e.g., not reporting outcomes in Black women) (n=9), and study design (n=1). In total, 38 studies were included in the systematic review. Studies were summarized based on the following categories: authors, study aim/design, sample size/characteristics, BE measurement, and outcomes related to BE (Table 1).

3.1 | Participants of included studies

Among all 38 included studies, sample sizes ranged from 16 to 11,222, and percentage of included Black women varied (ranging from 7 to 40% [n=18], and \geq 40%, n=20). Participants' mean age was 35.3 years (SD=9.6), and mean Body Mass Index (BMI) was 34.4 kg/m² (SD=7.1). Of the studies that reported BMI (n=29), two (7%) included participants with a mean BMI < 25 kg/m², six studies (21%) had participants with a mean BMI > 25–30 kg/m², and the remaining 21 articles (72%) included participants with a mean BMI \geq 30 kg/m². Recruited participants included those from clinical settings (n=5), community-based samples (n=18), or undergraduate student populations (n=7).

3.2 | Design of included studies

Most studies reported cross-sectional findings (n = 17; 44.7%) (Azarbad et al., 2010; Cachelin et al., 2001; Fitzgibbon et al., 1998; Gayle et al., 2004; Harrington et al., 2006; Harrington et al., 2010; Higgins et al., 2015; Hrabosky & Grilo, 2007; Jarosz et al., 2007; Kelly, Cotter, & Mazzeo, 2012; Lydecker et al., 2016; Lydecker & Grilo, 2016; Mazzeo et al., 2005; Mitchell & Mazzeo, 2004; Shuttlesworth & Zotter, 2011; Striegel-Moore et al., 2000; Udo et al., 2016). Additional studies included secondary data analyses of crosssectional data (n = 3; 7.8%) (Adamus-Leach et al., 2013; Kelly et al., 2012; Wilson et al., 2012), secondary data analyses of populationbased longitudinal studies (n = 4; 10.5%) (Marcus et al., 2007; Munn-Chernoff et al., 2015; Smith et al., 1998; Striegel-Moore et al., 2003); secondary analyses of large, representative data sets of Black respondents (n = 4; 10.5%) (Assari, 2018; Blostein et al., 2017; Marques et al., 2011; Taylor et al., 2007), and secondary analyses of RCT's (n = 3; 7.8%) (Lydecker et al., 2019; Mama et al., 2015; Thompson-Brenner et al., 2013). The remaining studies were: (a) a focus group study (Scott et al., 2018); (b) case-control design studies (n = 4; 10.3%) (Grilo et al., 2005; Pike et al., 2001; Striegel-Moore et al., 2002; Striegel-Moore et al., 2005); and (c) randomized clinical trials (n = 2; 5.3%) examining the change in BE over time (Goode et al., 2018b; Grilo et al., 2014).

3.3 | Binge-eating measures used

To assess the prevalence and severity of BE among Black women, investigators frequently used the Eating Disorder Examination (EDE) (n=14) (Fairburn & Cooper, 1993), Binge Eating Scale (BES) (n=13) (Gormally, Black, Daston, & Rardin, 1982), Eating Disorder Examination—Questionnaire (EDE-Q) (Celio, Wilfley, Crow, Mitchell, & Walsh, 2004) (n=8), and the structured clinical interview for DSM-IV (n=7) (First, Spitzer, Gibbon, & Williams, 2002). Other less commonly used measures included the Questionnaire on Eating and Weight Patterns-Revised (Spitzer, Yanovski, & Marcus, 1994) (n=6), and the World Health Organization Composite International Diagnostic Interview (Kessler & Ustun, 2004) (n=3).

3.4 | Prevalence of BE and BED

In total, 30 of the 38 studies (79%) reported information on the prevalence of BE and/or BED among Black participants (Adamus-Leach et al., 2013; Assari, 2018; Azarbad et al., 2010; Fitzgibbon et al., 1998; Gayle et al., 2004; Goode et al., 2018b; Grilo et al., 2005; Harrington et al., 2006; Harrington et al., 2010; Higgins et al., 2015; Hrabosky & Grilo, 2007; Kelly et al., 2012; Kelly, Mitchell, et al., 2012; Lydecker & Grilo, 2016; Lydecker et al., 2016; Margues et al., 2011; Mazzeo et al., 2005; Mitchell & Mazzeo, 2004; Munn-Chernoff et al., 2015; Pike et al., 2001; Scott et al., 2018; Shuttlesworth & Zotter, 2011; Smith et al., 1998; Striegel-Moore et al., 2003; Striegel-Moore et al., 2002; Striegel-Moore et al., 2000; Taylor et al., 2007; Thompson-Brenner et al., 2013; Wilson et al., 2012). In studies that reported BE prevalence in Black women, estimates ranged from 1.5 to 36% (Kelly, Mitchell, et al., 2012; Mazzeo et al., 2005; Scott et al., 2018; Striegel-Moore et al., 2000; Taylor et al., 2007). In addition, BED prevalence ranged from 0.06 to 2.2% (Assari, 2018; Marques et al., 2011; Smith et al., 1998; Striegel-Moore et al., 2003). Seven of the 30 studies (23%) reported no significant differences in the prevalence of BE between Black and White participants (Fitzgibbon et al., 1998; Gayle et al., 2004; Grilo et al., 2005; Marcus et al., 2007; Mazzeo et al., 2005; Mitchell & Mazzeo, 2004; Udo et al., 2016). In contrast, five of the 30 studies (17%) indicated that White women had significantly higher BE or lifetime BED prevalence than Black women (Azarbad et al., 2010; Harrington et al., 2006; Kelly, Mitchell, et al., 2012; Lydecker et al., 2019; Striegel-Moore et al., 2003) and 4 of the 30 studies (13%) reported that Black women had a significantly higher prevalence of BE than White women (Lydecker & Grilo, 2016; Marques et al., 2011; Pike et al., 2001; Striegel-Moore et al., 2000).

 TABLE 1
 Characteristics of included studies for systematic review

Study	Study design	Mean age (5D)	Mean BMI (5D)	N (percentage or number of Black women)	Prevalence of binge eating among Black participants	Sample description	Measures of binge eating	Binge eating outcomes in Black women
Adamus-Leach et al., 2013	Secondary data analysis of cross-sectional data	44.6 (9.2)	34.7 (7.9)	171 (n = 127)	Mean BES score: 12.7 (7.5)	Community-based sample Not clinically diagnosed with BED	BES	Significant, positive correlation between depressive symptoms and binge eating (r = .25). Body fat percentage, depressive symptoms, and weekly stress inventory impact were associated with BES score (F [4, 169] = 9.2, p < .001)
Assari, 2018ª	Secondary data analysis of population-based study	42.5 (SE .56)	Z.	3,516 (n = 2,299; 65% female)	3,516 (n = 2,299; 65% Mean percentage of BED female) (.06)	Community-based sample National data set	CIDI eating disorder module	Higher perceived discrimination associated with higher odds of BE.
Azarbad, Corsica, Hall, & Hood, 2010	Cross-sectional study	40.1 (9.9)	51.7 (9.7)	404 (n = 224)	Mean BES score: 12.0 (8.4)	Mean BES score: 12.0 (8.4) Women who presented for BES a psychological evaluation prior to undergoing roux-en-Y gastric bypass surgery	BES	No racial differences in BES scores. Black women exhibited less BE symptomatology than White women. Nearly 8% of Black women evidenced severe binge eating symptomatology on the BES.
Blostein, Assari, & Caldwell, 2017 ^a	Secondary data analysis of population-based study	42.3 (0.5)	Z	5,191 (100%; percentage of female NR)	Z.	African –American or Caribbean American Black participants	WHO-CIDI BES	Body dissatisfaction was strongly associated with binge eating (OR = 6.94, 95% CI 4.21, 11.44). Gender was not associated with binge eating.
Cachelin, Rebeck, Veisel, & Striegel-Moore, 2001	Cross-sectional study	30.5 (range 19–43 years)	30.2 (range 14.5–65.3)	61 (n = 12)	N N	Fulfilled clinical BED criteria as defined by the DSM-IV; Community-based recruitment	EDE	Though 85% of sample reported wanting help for an ED, only 57% had ever sought treatment. Main barriers to treatment seeking were financial.
Fitzgibbon et al., 1998	Cross-sectional study	35.2 (9.5)	30.2 (8.2)	179 (100%)	Mean binge scale score: 2.8 Community-based sample (4.2)	Community-based sample	QEWP-R Binge scale	Women who reported BE were heavier, more depressed, and preferred a slimmer body ideal. BE was unrelated to body image, depression, or weight.
Gayle, Fitzgibbon, & Martinovich, 2004	Gayle, Fitzgibbon, & Cross-sectional study Martinovich, 2004	39.5 (9.4)	39.6 (9.7)	52 (n = 26)	BED prevalence: 30.8% (n = 8) Subclinical BED: 38.5% (n = 10)	Participants recruited from university-based eating disorder program	QEWP-R	No significant ethnic differences (between Black and White women) in the nutritional composition (e.g., protein, calories, and carbohydrates) of binges.
Goode et al., 2018k	Goode et al., 2018b Randomized control trial 48.8 (12.8)	48.8 (12.8)	33.7 (3.9)	31 (100%)	Baseline BES score: 22.6 (7.0) Monthly OBE episodes: 2.8 (5.5) Monthly LOC: 16.8 (15.5)	Reported experiencing at least one binge eating episode monthly (within the last 3 months). Community sample randomized to appetite awareness training (AAT) or wait-list control	BES	AAT retention was 87.5%. Compared to participants in the WAIT group, AAT participants had greater decreases in binge eating scores and greater improvements in eating self-efficacy scores at the end of week 8.

Study	Study design	Mean age (5D)	Mean BMI (5D)	N (percentage or number of Black women)	Prevalence of binge eating among Black participants	Sample description	Measures of binge eating	Binge eating outcomes in Black women
Grilo et al., 2005	Case-control trial	43.9 (9.2)	36.2 (7.4)	Clinical sample: 337 (n = 35) Community sample: 98 (n = 52)	Black women (clinic): Binge-eating episodes per week: 44 (community) Binge-eating episodes per week: 6	Met DSM-IV criteria for BED. Clinical sample and community sample	EDE EDE-Q SCID-I/P	Black and White women did not differ significantly on the four EDE-Q scales of BE frequency. Clinic Black women had significantly higher BMI (ES = 0.47), and reported lower levels of OBE (ES = -0.47) than the community sample.
Grilo et al., 2014ª	Randomized clinical trial 43.9 (11.2)	43.9 (11.2)	38.3 (5.6)	104 (n = 36; 70% female)	X X	Met DSM-V criteria for BED; Respondents for treatment study in primary care	SCID-I/P	At 6-months, the self-help CBT group had significantly lowered bingearing frequency. Race either gender moderated or predicted clinical outcomes.
Harrington, Crowther, Henrickson, & Mickelson, 2006	Cross-sectional study	20.7 (5.13)	25.1 (5.5)	178 (n = 93)	Mean BES: 6.79 (6.6)	Black and White women recruited from university courses	BES	Stress ($r = .21$, $p < .05$) and discriminatory stress ($r = .22$, $p < .05$) were significantly related to BES scores.
Harrington, Crowther, & Shipherd, 2010	Cross-sectional study	29.6 (12.8)	28.0 (7.4)	179 (100%)	Mean BES: 9.3 (8.0)	Community and university- based sample who had to experience at least 1 traumatic event, and were not diagnosed with BED	BES EDDS	Trauma exposure and distress predict greater internalization of "strong Black women ideology," which is associated with emotional inhibition/regulation difficulties, eating for psychological reasons, and binge eating.
Higgins, Lin, Alvarez, & Bardone-Cone, 2015	Cross-sectional study	19.0 (1.6)	22.2 (2.8)	276 (n = 97)	Mean frequency of BE = .95 (2.9)	Participants were 276 women attending a Midwestern university in the United States	BUILT-R EDE-Q	High body shame and high impulsivity was associated with increased binge eating.
Hrabosky & Grilo, 2007	Cross-sectional study	34.8 (9.7)	30.5 (8.3) B: 31.0 (8.9)	120 (n = 67)	OBE: 1.3 (3.0) EDE-Q: Shape: 2.5 (1.9) Weight: 2.1 (1.8) Restraint: 1.1 (1.5) Eating concern: .95 (1.2)	Community sample of Black and Hispanic women	QEWP-R	Higher weight associated with binge eating. No significant differences were observed between Black and Hispanic women in BMI, body image attitudes or distress, eating attitudes or behavior, teasing experience, or depressive affect.
Jarosz, Dobal, Wilson, & Schram, 2007	Cross-sectional study	40.6 (10.8)	40.9 (7.1)	96 (n = 88)	Z Z	Sample recruited from four QEWP-R urban clinic sites	QEWP-R	Approximately 6.4% of sample reported recurrent binge eating, and 18.9% reported night eating syndrome.
Kelly, Cotter, & Mazzeo, 2012	Cross-sectional study	19.6 (3.7)	24.8 (5.9)	395 (100%)	EDE-Q scores: Global: 1.5 (1.3) Restraint: 1.1 (2.3) Eating: 0.8 (1.1) Shape: 2.1 (1.6) Weight: 2.2 (1.8)	Black, undergraduate women Recruited from psychology classes at a public university in the southeastern United States	EDE-Q	Black women reported engaging in regular subjective binge eating, self-induced vomiting, and laxative/diuretic misuse. Participants reported levels of ED symptoms comparable to White community members, but lower than White undergraduate peers.
								(Continues)

Study	Study design	Mean age (SD)	Mean BMI (SD)	N (percentage or number of Black women)	Prevalence of binge eating among Black participants	Sample description	Measures of binge eating	Binge eating outcomes in Black women
Kelly, Cotter, & Mazzeo, 2012	Secondary data analysis of a cross-sectional study	19.7 (3.85)	25.6 (5.5)	2,208 (n = 741)	Mean BES score: 8.7 (6.8)	Undergraduate women recruited from a large, public university in the southeastern United States, no formal ED diagnosis	BES EDDS EAT-26	Black women had higher BMI and were less likely than White women to endorse eating disorder symptomatology, including body dissatisfaction. Current measures of disordered eating were developed and validated with primarily White samples, and may overemphasize risk factors such as dieting, body dissatisfaction, and internalization of the thin-ideal, which may not be as relevant for Black women.
Lydecker, White, & Grilo, 2016 ^a	Cross-sectional study	45.3 (9.8)	38.5 (6.9)	238 (n = 119; 83.2% female)	EDE: OBE: 21.2 (16.3) SBE: 9.2 (16.0) OOE: 3.3 (6.6) EDE-Q OBE: 12.0 (8.3) SBE: 5.7 (7.8) OOE: 15.5 (10.7)	Participants were treatment-seeking adults with DSM-IV-TR defined BED	EDE-Q SCID-IV	EDE and EDE-Q scores are correlated on BE, eating disorder psychopathology scales, and weight variables. Correlations were similar between Black and White patients.
Lydecker & Grilo, 2016 ^a	Cross-sectional study	45.4 (89)	40.2 (SE = .59)	775 (n = 100; 82.6% female)	Mean (<i>SE</i>) OBE: 21.6 (1.1) EDE global score: 2.7 (.08) Restraint: 1.8 (.12) Eating: 1.9 (.12) Shape: 3.7 (.10) Weight: 3.2 (.09)	Treatment-seeking adults with DSM-IV-defined BED who self-identified as Black, Hispanic, or White	EDE	Black participants had a higher BMI, and reported more frequent binge eating episodes compared to White participants. El psychopathology did not differ across racial/ethnic groups. Developmental trajectory of BED is more rapid for Black participants than White participants
Lydecker, Gueorguieva, Masheb, White, & Grilo, 2019 ^a	Secondary data analysis of randomized clinical trials	46.4 (9.6)	37.6 (6.2)	592 (n = 93; 82.3% female)	Mean BE frequency: 11.45 (8.0)	Participants were patients in psychological and phamacological RCTs for BED	SCID EDE EDE-Q	Black participants had fewer-BE episodes and had less depression. Greater proportion of Black participants achieved BE remission across time points. Lower percentage of Black participants achieved WL.
Mama et al., 2015	Secondary data analysis of randomized clinical trial	47.2 (8.4)	34.7 (8.0)	180 (n = 131)	۳ ع	Community-based recruitment of Black and Hispanic women from Houston, TX who participated in a two-arm lifestyle intervention: (a) physical activity and (b) dietary habits	BES	Over 1/4 (27.8%) of participants were classified as binge eaters at baseline. Women classified as binge eaters who participated in the physical activity intervention reported greater decreases in BES score than non-binge eaters in the dietary habits intervention.

TABLE 1 (Continued)

	<u>u</u>	<u>.</u> ⊆	<u>.</u>			
Binge eating outcomes in Black women	Nearly 13.4% of Black women endorsed use of vigorous exercise, strict dieting, and/or purging to keep from gaining weight. Black women had significantly higher BE scores than did Hispanic women, and similar scores to White women.	Lifetime prevalence of any binge eating was greater and mental health service utilization was less in Black participants (overall, and by gender) in comparison to non-Hispanic, whites.	Black women had higher BMIs, higher self-esteem, and less depression than White women. There were no significant racial differences in rates of binge eating or BED.	Depression, anxiety, and alexithymia associated with BES scores. No significant difference in BE prevalence between Black and White women.	No significant differences in overeating or BE in Black (10.2%) compared with White women (7.4%) (p = .07).	Back women had significantly higher binge-eating episodes per week, 5.99 vs. 3.88 ($F=15.7$, df = 1, 148, $p<.001$). Black women significantly less likely than White women to be treated for BED (7.7% [$n=4$] vs. 22.4% [$n=22$]; $X^2=5.2$; $p<.0.3$).
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Measures of binge eating	Bulimia test-revised (BULIT-R)	WMH-CIDI	QEWP BES	EDDS BES	Lifetime overeating-binge eating (OE-BE) was based on the endorsement of two questions	SCID EDE EDE-Q
Sample description	Participants from the study of Women's health across the nation (SWAN)	Pooled data from the NIMH collaborative psychiatric epidemiological studies Examined 12-month and lifetime prevalence of 12-month and lifetime prevalence of AN, BN, and any binge eating	All participants were bariatric candidates	Community-based sample	Participants were part of the Missouri adolescent female twin study	Participants recruited as part of the New England's health study; women with BED matched with community-based sample of women without BED.
Prevalence of binge eating among Black participants	Ľ	1.5% (SE = 0.24) Iffetime BED prevalence	BES: 22.8 (9.7) Met criteria for BED: 33.3% Severe binge eaters: 35.8%	Mean BES: 7.8 (6.9)	10.23% of Black women reported any lifetime overeating (OE) or BE	Binges/week: 6.0 (4.2)
N (percentage or number of Black women)	589 (n = 157)	11,222 (n = 5,381; percentage of female NR)	388 (n = 147)	259 (n = 73)	3,755 (n = 547)	150 (n = 52)
Mean BMI (5D)	31.3 (7.1)	Ľ	47.9 (7.9)	26.2 (5.8)	K Z	36.3 (7.4)
Mean age (5D)	45.7 (2.5)	Ľ	39.9 (10.8)	20.4 (5.3)	Median = 22 years (range = 19-24 years)	31.4 (5.7)
Study design	Secondary data analysis of population-based longitudinal study	Secondary data analysis of population-based study	Mazzeo et al., 2005 Cross-sectional study	Cross-sectional study	Secondary data analysis of population-based longitudinal study	Case-control study
Study	Marcus, Bromberger, Wei, Brown, & Kravitz, 2007	Marques et al., 2011 ^a	Mazzeo et al., 2005	Mitchell & Mazzeo, 2004	Munn-Chernoff et al., 2015	Pike et al., 2001

(Continues)

Binge eating outcomes in Black women	Nearly one-quarter of participants felt they had never had a problem with eating. While several participants currently (37.5%, n = 6) or previously (37.5%, n = 6) wanted help for eating problems, only one individual had ever received any treatment for an eating concern. Key focus group theme revealed lack of awareness of BE and BED.	Comparable rates of BED in Black (2.2%) and White women (2.0%), despite substantial differences in obesity and depression between these groups.	Low levels of ethnic identity represent a risk factor and increase the likelihood of binge eating and bulimic pathology.	Black women were as likely as White women to report that they had engaged in the behaviors of binge eating and self-induced vomiting during the preceding 3 months. In addition, more Black women than White women reported that they had used laxtives, diuretics, or fasting to control their weight. Almost twice as many Black women as White women were identified as probable eating disorder cases.	All categories of physical abuse, reports of being buillied by peers, and reports of sexual abuse and repeated sexual abuse were more common among Black women with BED than Black women in healthy and psychiatric groups.	Significantly less Black women met criteria for BED than White women. Among those who reported a history of ED (n = 76), few women ever received treatment: B (n = 1); W (n = 16).
Measures of binge eating	EDE-Q	QEWP-R	BES EAT-26	EDE	EDE	Screening interview for eating disorder EDE SCID-IV
Sample description	Recruited from local university and community organizations in two southeastern urban areas	Participants from the coronary artery risk development in young adults (CARDIA) study	Undergraduate students from (a) mid-Atlantic, historically Black, public university; (b) mid- Atlantic, predominately White, public university	Community sample of Black and White women recruited from northeastern United States participating in a telephone survey.	Participants from the New England Women's Health Project	Participants were recruited from the 10-year longitudinal NHLBI growth and health study.
Prevalence of binge eating among Black participants	Reported 5.3 (5.0) binge eating episodes in the last 28-day period EDE-Q Total score = 3.2 (0.9)	5,115 (n = 1,101; 65% Prevalence of BED = 2.2% female);	HBCU (Black): BES: 24.0 (7.0) EAT-26:52.1 (14.5)	Binge eating at least once in the last 3 months: 8.4% (n = 136)	¥ Z	BED prevalence in the sample: 1.4% (n = 27)
N (percentage or number of Black F women)	16 (100%)	5,115 (n = 1,101; 65% F female);	301 (n = 119) HBCU: 88 (100%) PWU: 213 (n = 31)	7,369 (n = 1,628)	520 (n = 166)	2046 (n = 1,061)
Mean BMI (SD)	36.1 (12.7)	30.0 (7.9)	^곳	27.0 (6.0)	¥	Σ
Mean age (5D)	38.1 (12.5)	34.5 (3.9)	20.0 (4.0)	28.3 (5.0)	30.1 (5.8)	21.5 (0.7)
Study design	Qualitative research	Secondary data analysis of population-based longitudinal study	Cross-sectional study 2	Cross-sectional study 2	Case-control study	Secondary data analysis from a population- based longitudinal study
Study	Scott et al., 2018	Smith, Marcus, Lewis, Fitzgibbon, & Schreiner, 1998ª	Shuttlesworth & Zotter, 2011	Striegel-Moore et al., 2000	Striegel-Moore, Dohm, Pike, Wilfley, & Fairburn, 2002	Striegel-Moore et al., 2003

TABLE 1 (Continued)

Study	Study design	Mean age (SD)	Mean BMI (5D)	N (percentage or number of Black women)	Prevalence of binge eating among Black participants	Sample description	Measures of binge eating	Binge eating outcomes in Black women
Striegel-Moore et al., 2005	Case-control study	30.7 (6.0)	36.7 (9.3)	162 (n = 60)	<u>α</u> Σ	Participants from the New S England Women's I health project, sampled to determine risk factors for BED in a community sample of Black and White women.	SCID EDE	Childhood obesity and familial eating problems are specific risk factors for BED. Race did not moderate risk for BED.
Taylor et al., 2007 ^a	Secondary data analysis of population-based study	¥.	Υ	5.191 (100%)	Lifetime prevalence of any B.E. (n = 174; 5.8%) 12-month prevalence of any B.E. (n = 84; 1.5%)	Participants from the National Survey for American life (NSAL)	WMH-CIDI-WHO	Binge eating was the most prevalent eating disorder among adults and adolescents. The average age of onset for BE was significantly higher than AN. Women had higher lifetime prevalence of any binge eating and 12-month prevalence of BN, and BED than men.
Thompson-Brenner et al., 2013 ^a	Thompson-Brenner Secondary analysis of et al., 2013 ^a randomized controlled trials	ZY.	ZY.	1,073 (n = 78) 85% of sample was female	Baseline: OBE: 19.6 (range: Data aggregated from 16.9, 22.2) 11, randomized, Post-treatment OBE 4.8 controlled trials of (range: 2.6, 7.1) psychosocial treatm for BED	ents	EDE	Black participants were more likely to drop out than White participants. (OR = 2.3, p < .01) Black participants demonstrated a greater reduction in EDE global score, compared to White participants (d = .21, p < .05).
Udo et al., 2016	Cross-sectional study	43.6 (10.7)	39.3 (6.0)	109 (n = 56)	OBE: 17.4 (13.7) SBE: 9.9 (13.8) OOE: 4.4 (9.1)	Participants responded to advertisements for treatment and had obesity (BMI greater than 30) and met the DSM-5 criteria thresholds for BED	EDE	Caucasian women reported significantly Earlier onset of becoming overweight, beginning binge eating, and dieting, and a greater number of times on a diet women reported significantly later onset of becoming overweight, beginning binge eating and dieting, and 50% less times being on a diet, compared to White women. No significant difference in by race in ED psychopathology.
Wilson et al., 2012	Secondary data analysis of cross-sectional data	45.8 (9.2)	34.5 (9.2)	283 (n = 192)	Z Z	Recruited to the HIP study I through media, brochures, churches, and internet communication.	BES	Higher BMI was associated with increased fat consumption and binge eating. Negative correlation between BES scores and fruit consumption.

OOE, objective overeating; ES, effect size; BES, binge eating scale; EDE, eating disorder examination; EDE-Q, eating disorder examination-questionnaire; SCID, structured clinical interview for DSM-IV; EAT-26, eating attitudes test; QEWP-R, questionnaire on eating and weight patterns -revised; WMH-CIDI or WHO-CIDI, World Health Organization composite international diagnostic interview.

^aBlack men were also included in the sample. Abbreviations: BE, binge eating; BED, binge eating disorder; AN, anorexia nervosa; BN, bulimia nervosa; ED, eating disorder; NR, not reported; OBE, objective bulimic episode; SBE, subjective bulimic episode; SBE, subjective bulimic episode;

3.5 | Racial differences in the nature and course of eating disorder psychopathology

Nine studies examined racial differences in eating disorder pathology (e.g., concerns about weight, shape, restraint, as measured by the EDE) (Blostein et al., 2017; Grilo et al., 2005; Hrabosky & Grilo, 2007; Kelly et al., 2012; Kelly, Mitchell, et al., 2012; Lydecker & Grilo, 2016; Shuttlesworth & Zotter, 2011; Striegel-Moore et al., 2000; Udo et al., 2016). In four of the nine studies (44%), no racial differences in ED psychopathology were observed, and Black and White women reported similar concerns about weight, shape, and eating (Grilo et al., 2005; Lydecker & Grilo, 2016; Striegel-Moore et al., 2000; Udo et al., 2016). For example, in one study, Black women were as likely as White women to report BE and selfinduced vomiting during the previous 3 months (Striegel-Moore et al., 2000). However, two of the nine studies (22%) found that Black participants were less likely to report eating disorder symptomatology, including engaging in regular subjective BE (i.e., sense of loss of control but the amount of food was not unusually large), self-induced vomiting, and laxative/diuretic misuse) (Kelly, Cotter, et al., 2012; Kelly, Mitchell, et al., 2012). In two other studies (22%), few racial differences in the clinical presentation of eating disorder symptomatology emerged; however Black women did have higher BMIs compared with Non-Hispanic, White women (Grilo et al., 2005; Lydecker & Grilo, 2016).

3.6 | Age of BE and BED onset

There were five studies that examined the age of onset of BE and/or BED among Black women. In three of the five studies (60%), investigators reported significant differences in the age of onset for BE in Black women compared with White women (Lydecker & Grilo, 2016; Striegel-Moore et al., 2005; Udo et al., 2016). For example, in Udo et al. (2016) mean age of BE onset was 30.0 ± 13.3 years, compared with 22.7 ± 12.2 years for White women (p < .01). Similarly, Lydecker et al. (2016) reported the mean age of onset of BE to be 26.92 years (SE = 1.22) (Black), compared with 22.46 years (SE = 0.54) (White) (p = .002). Three studies reported age of onset of BED (Lydecker & Grilo, 2016; Smith et al., 1998; Taylor et al., 2007), with ages ranging from 18 to 28.5 years for Black individuals, compared with 14-26.7 (0.58) years for those identifying as White.

3.7 | Factors associated with BE

Thirteen studies investigated correlates of BE in Black women (Adamus-Leach et al., 2013; Assari, 2018; Azarbad et al., 2010; Blostein et al., 2017; Harrington et al., 2006; Harrington et al., 2010; Higgins et al., 2015; Mazzeo et al., 2005; Mitchell & Mazzeo, 2004; Shuttlesworth & Zotter, 2011; Striegel-Moore et al., 2002; Striegel-Moore et al., 2005; Wilson et al., 2012). Four of the 13 studies (31%) reported a positive association between depressive symptoms and BE (Adamus-Leach et al.,

2013; Azarbad et al., 2010; Mazzeo et al., 2005; Mitchell & Mazzeo, 2004). Two of the 13 studies (15%) reported high levels of body shame and/or dissatisfaction were associated with increased binge eating (Blostein et al., 2017; Higgins et al., 2015). Additionally, higher levels of ethnic identity were associated with lower levels of BE in Black, undergraduate college women (Shuttlesworth & Zotter, 2011). Other factors positively associated with BE among Black women include perceived discrimination (Assari, 2018); physical and sexual abuse (Striegel-Moore et al., 2002); consumption of dietary fat (r = .23) (Wilson et al., 2012); trauma (r = .22) (Harrington et al., 2006); stress (r = .36) and discriminatory stress (r = .22) (Harrington et al., 2006); childhood obesity (d = 0.64) and family overeating/BE (d = 0.82) (Striegel-Moore et al., 2005).

3.8 | Evidence-based treatments

Several treatment studies included Black participants, and either reported outcomes by race, or reported outcomes specifically in Black individuals. First, Grilo et al. (2014) examined the effectiveness of 4-month intervention of self-help CBT and an anti-obesity medication (sibutramine), alone and in combination, in a sample that included 36 Black participants (34.6% of the total sample) with BED. At the 6 month-follow-up only, participants randomized to the self-help CBT group had significantly lowered binge-eating frequency. Self-help CBT and sibutramine did not demonstrate long-term effectiveness relative to placebo for treating BED, and there were no significant differences in BE outcomes between treatments by the end of the study (16-months). Race did not moderate or predict clinical outcomes.

Two published studies report outcomes in Black women in an RCT targeting BE (Goode et al., 2018b; Mama et al., 2015). In the first, Mama et al. (2015) examined the effectiveness of a lifestyle intervention (physical activity vs. dietary habits) to reduce BE symptoms in a sample of predominately Black women (N = 310; 84.8% Black). Participants in both groups completed six intervention sessions over a 24-week period. In addition to receiving intervention content on personal goal setting, reducing barriers, and increasing self-efficacy and support, participants in the physical activity group walked for 15-minutes as a group together. Those in the fruit and vegetable group sampled two new vegetables or fruits prepared by the research team (Lee et al., 2011). BE was not explicitly discussed during the intervention. At baseline, 27.8% of participants reported BE, and at the post-intervention assessment (24 months), those randomized to the physical activity group reported greater decreases in BE than those in the dietary habits group.

In the second study, Goode et al. (2018b) examined the feasibility and acceptability of an 8-week appetite awareness treatment (AAT), a cognitive-behavioral intervention to treat BE, in a sample (n=31) of Black women with overweight and obesity (BMI = 25–40 kg/m²) and with moderately severe BE behavior. Participants were randomized to AAT or a wait-list control group. Overall, retention was high (88%), and women randomized to AAT showed significantly reduced BE and improved self-efficacy for weight loss at 8 weeks compared to controls (Goode et al., 2018b).

3.9 | Access and participation in treatment for BE, BED, and disordered eating behaviors

Five studies examined rates of access and treatment participation for BE and disordered eating among Black women (Cachelin et al., 2001; Marques et al., 2011; Pike et al., 2001; Striegel-Moore et al., 2003; Thompson-Brenner et al., 2013). In one of the five studies (20%), no significant differences were observed in treatment seeking among racial/ethnic groups (Black, White, Hispanic, and Asian) (Cachelin et al., 2001). In contrast, in three of the five studies (60%), Black women were less likely to seek treatment for eating disorders than Non-Hispanic, White women (Marques et al., 2011; Pike et al., 2001; Striegel-Moore et al., 2003). For example, Marques et al. (2011), reported that mental health service utilization was significantly lower among Black women than Non-Hispanic, White women with a lifetime history of any eating disorder. Additionally, less than 8% of Black women with BED sought treatment, compared to ~22% of White women with BED (Pike et al., 2001; Scott et al., 2018). Moreover, White women were nearly five times more likely than Black women to receive treatment for an eating disorder (Striegel-Moore et al., 2003). Furthermore, when engaged in psychosocial treatment trials for BED, data aggregated across 11 clinical trials indicated that Black participants were more than twice as likely as White participants to drop out of treatment (Thompson-Brenner et al., 2013).

3.10 | Methodological limitations of the current literature

Several methodological limitations are present in the existing literature examining BE in Black women. First, the considerable variability in assessment tools used to measure BE challenged our ability to compare the prevalence of this behavior across studies. Within our review, 11 measures were used to examine BE outcomes. Because these measures were validated in samples primarily consisting of White women, there is a risk of not characterizing eating disorder symptoms and risk factors as accurately in Black women (Kelly, Mitchell, et al., 2012). For example, several studies have reported that, compared with White women, Black women may experience less subjective distress and shame related to engagement in BE behaviors (Franko, Becker, Thomas, & Herzog, 2007; Napolitano & Himes, 2011). This racial difference might be due to the presence of cultural norms that may permit eating larger portions of food and/or using food for emotional coping (Beauboeuf-Lafontant, 2003; Goode et al., 2018a). The experience of marked distress is a key diagnostic criterion for BED (American Psychiatric Association, 2000, 2013); if Black women indicate binge-eating behavior, yet also indicate the absence of marked distress, which may be influenced by cultural factors and norms, their eating pathology might be mischaracterized or underestimated. Further investigation of these eating patterns and cultural considerations in the diagnosis of BED among Black women is warranted (Napolitano & Himes, 2011).

Additionally, Kelly et al., examined the construct validity of several eating disorder measures (e.g., BES [Gormally et al., 1982], eating disorder diagnostic scale [Stice, Telch, & Rizvi, 2000], eating attitudes test-26 [Garner, Olmsted, Bohr, & Garfinkel, 1982]), and discovered that although most yielded internally consistent scores across Black and White women, there was a subset of measures (including the BES) which factor analyses suggested were assessing different underlying constructs. Moreover, some specific items on these measures were endorsed by Black women at lower rates than White women (Kelly, Mitchell, et al., 2012). Similarly, an investigation of racial differences in EDE-Q norms indicated that, although Black and White women obtained similar scores, Black women endorsed significantly less BE and compensatory behavior (Kelly, Cotter, & Mazzeo, 2012). Recent evidence, however, suggests similarities between the EDE and the EDE-Q scores in Black women with BED and White women with BED (Lydecker et al., 2016). In total, these studies indicate further research is warranted to enhance our understanding of the optimal approach to the assessment of disordered eating in Black women

Many of the studies included in this review used cross-sectional survey methodology, and although the EDE was used frequently to assess BE, self-report measures were often used to assess BE (e.g., BES, EDE-Q). Using the BES as a self-report measurement for BE has limitations. Evidence suggests that the BES might provide an accurate screening for BED, but appears to have less accuracy than the EDE-Q in identifying the severity of binge eating episodes (Celio et al., 2004; Mama et al., 2015). In addition, it does not address binge eating frequency. Finally, to the best of our knowledge, and as included within this review, very few published studies report intervention outcomes specific to BE in Black women (Goode et al., 2018b; Mama et al., 2015).

4 | DISCUSSION

We systematically reviewed the literature on the prevalence of BE and BED among Black women, the nature and course of binge-eating pathology, factors that may influence BE in this population, possible evidence-based treatments, and access and participation in treatment for BE and BED. Most research on BE and BED has focused on White women, with Black individuals underrepresented in clinical trials (Cachelin et al., 2001). Many disparities exist in access to treatment and retention; moreover, little intervention research has examined best practices for treating BE in the Black patient population (Grilo et al., 2005; Marques et al., 2011; Pike et al., 2001; Thompson-Brenner et al., 2013).

4.1 | Prevalence of BE and BED in Black women

Our results indicate that the prevalence of BE and BED among Black women is similar and/or higher than that has been observed in White women (Grilo et al., 2005; Jarosz et al., 2007; Mazzeo et al., 2005).

Although some have suggested that Black women might be protected from disordered eating due to cultural norms permitting larger body sizes (Williamson, 1998), ample evidence now suggests that BE in particular, occurs across racial and ethnic lines (Alegria et al., 2007; Marques et al., 2011). Because BED is associated with numerous comorbid health conditions, including severe obesity (Hales, Carroll, Fryar, & Ogden, 2017), its prevention and treatment is of paramount importance.

4.2 | Nature and course of eating disorder pathology

Results of this review also highlight that few studies have identified racial differences in eating disorder psychopathology and concerns about shape, weight, and eating (Grilo et al., 2005; Lydecker & Grilo, 2016; Striegel-Moore et al., 2000; Udo et al., 2016). Indeed, while Black women were more likely to have higher BMIs, and less likely to engage in self-induced vomiting, and/or laxative/diuretic misuse (correlates of BE) (Grilo et al., 2005; Kelly, Mitchell, et al., 2012; Lydecker & Grilo, 2016), eating disorder psychopathology levels overall were similar to those observed in White women. These similarities, along with the results of prior research (Franko et al., 2012; Lydecker et al., 2019; Lydecker & Grilo, 2016; Thompson-Brenner et al., 2013), might provide additional support for the use of established treatments for BED to be examined in samples of Black participants. However, due to the documented challenges with the recruitment, engagement, and retention of Black participants in BED treatment studies, (Cachelin et al., 2001; Marques et al., 2011; Thompson-Brenner et al., 2013) adjustments in the setting, recruitment strategy, and the incorporation of relevant sociocultural factors might be necessary to facilitate Black women's access to appropriate care (Scott et al., 2018).

4.3 | Factors affecting development of BE

Although a nascent literature has identified factors affecting the development of BE in Black women, many questions remain. For example, although we have some evidence to suggest that trauma exposure and distress might be significant predictors of BE severity (Harrington et al., 2006; Harrington et al., 2010), limited information exists on the conditions, risk factors, and pathways that might moderate this relation (Harrington et al., 2010). Furthermore, evidence also suggests the presence of alternative mechanisms affecting the disordered eating behaviors of Black women; for example, compared with White women with BED, Black women with BED report lower levels of dietary restraint, weight bias, and concern about their shape and weight (Barnes, Ivezaj, & Grilo, 2014; Pike et al., 2001; Scott et al., 2018). In sum, there remains a need for research investigating the experiences of Black women with BE, to enhance our ability to design culturally sensitive interventions.

4.4 | Evidence-based treatment

Although intervention research conducted with Black women is scarce, two studies have offered promising results from different treatments: (a) behavioral interventions to increase physical activity and (b) appetite awareness training, a cognitive-behavioral treatment to improve maladaptive eating behaviors (Goode et al., 2018b; Mama et al., 2015). Pilot evaluations of these interventions suggest that they have the potential to reduce BE and improve eating self-efficacy in this population. These studies were conducted using traditional, face-to-face, group-based interventions, and included samples in which at least 85% of the participants were Black. Both studies, however, examined the change in BE in a sample with mild to moderate BE severity based on BES scores, and did not explicitly include participants diagnosed with BED. Future research should examine the long-term potential of these and other interventions to reduce BE and to prevent and treat BED in Black women.

4.5 | Access to and participation in treatment for BE and BED

Results from this systematic review highlight evidence suggesting that Black women are less likely than White women to seek eating disorder treatment, and even when engaged, are more likely to drop out (Becker, Franko, Speck, & Herzog, 2003; Cachelin et al., 2001; Marques et al., 2011; Thompson-Brenner et al., 2013). Though the reasons for these disparities are likely complex, further investigation of the factors associated with retention in treatment for BE/BED in this population might be helpful. In a recent feasibility trial that included Black women with BE behaviors, retention was nearly 90%; the authors report that scheduling intervention sessions in a familiar community location and in the evening might have contributed to study retention (Goode et al., 2018a). Additionally, in focus groups following the feasibility trial, participants acknowledged the benefit of feeling support from the facilitator and other group members (Goode et al., 2018a). Experiencing support while engaging in treatment for mental health or BE concerns might be particularly important for Black individuals; in previous research exploring the relation between ethnicity and mental health utilization, experiencing a positive alliance (e.g., feeling understood or heard by the therapist) was significantly associated with increased session completion in Black participants (Bender et al., 2007). Additional research on the factors influencing BE/BED treatment retention and dropout among Black women is needed.

Racial stereotyping might also contribute to disparities in treatment seeking for BE; several studies have demonstrated that Black women are considered far less likely to be affected by eating disorders, and are less likely than Whites to receive a recommendation or referral for further evaluation or care, and/or to have been asked by their doctor about eating disorder symptoms (Becker et al., 2003; Gordon, Perez, & Joiner Jr., 2002; Kelly, Mitchell, et al., 2012). Moreover, Black women might not be aware of BE and BED as clinical concerns. For example, in a recent focus group investigation in a sample

of Black women with BED, participants were surprised that BE is considered disordered eating, and were unaware that their eating concerns met diagnostic criteria for BED (Scott et al., 2018). Indeed, Black women have reported experiencing cultural norms that encourage them to eat larger portions and not to waste food (Beauboeuf-Lafontant, 2003; Goode et al., 2018a). In addition, Black women have acknowledged that within their cultural group, it is considered acceptable to use food to cope with negative emotions (Beauboeuf-Lafontant, 2003; Goode et al., 2018a). Further research is needed to identify and evaluate strategies for increasing BED awareness, and mitigating racial biases in the identification of eating disorder symptoms in Black women.

4.6 | Methodological limitations of the current literature

Results of this review highlight the great variability in assessment tools for the measurement of BE and BED, and raise some concern about their construct validity for Black women. Moreover, the presentation of disordered eating might differ across cultural boundaries. For example, marked distress (a current DSM-5 diagnostic criteria for BED) does not appear to co-occur with BE in Black women as frequently as it does in White women (Napolitano & Himes, 2011). Furthermore, evidence suggests that emotional overeating and/or obesity, which have been associated with BE frequency and severity, might warrant consideration as early symptoms of BED in Black women (Masheb & Grilo, 2006; Taylor et al., 2013). Indeed, Black women have the highest rates of obesity of any racial and ethnic group in the U.S. (Hales et al., 2017), and experience cultural norms that may permit the use of food as a coping technique for negative emotions (Beauboeuf-Lafontant, 2003; Taylor et al., 2013; Willig, Richardson, Agne, & Cherrington, 2014). Additionally, because obesity onset generally precedes the development of BED (Lydecker & Grilo, 2016), increasing providers' awareness of emotional eating and obesity as potential BED correlates might enhance treatment access for this population.

4.7 | Limitations

Due to the lack of a consistent measure of BE and associated factors across studies, we were unable to conduct a meta-analysis. Moreover, due to the reliance on self-report measures to assess BE in most studies, social desirability might have influenced the accuracy of reported BE and other disordered eating behaviors. Additional limitations include the exclusion of gray literature, and the exclusion of studies not published in English.

5 | CONCLUSION

This systematic review supports the finding that Black women experience BE and BED at rates similar to those observed in White women.

Moreover, few differences in eating disorder psychopathology and concerns about shape, weight, eating, were noted between racial groups. Limited evidence-based treatment for BE and BED has been evaluated in Black women, and future research is needed to examine additional factors associated with disordered eating behaviors. Additionally, due to continued disparities in the referral and access to treatment for BE and BED, psychoeducation on the symptoms of BE and BED, and adjustments in recruitment, engagement, intervention methods, and treatment settings are likely needed to provide Black women with access to adequate levels of care. Furthermore, due to the well-documented disparities in obesity (e.g., 82% of Black women are affected by overweight or obesity [Hales et al., 2017; Ogden, Carroll, Fryar, & Flegal, 2015]), more than adequate justification exists for additional research to develop, implement, and evaluate interventions targeting the prevention and treatment of BED in this population.

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DATA AVAILABILITY STATEMENT

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of this article.

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