Struggling at School: Are Exposure to Television's Eurocentric Appearance Norms and

Objectified Body Consciousness Associated Factors?

Elizabeth A. Daniels

University of Colorado, Colorado Springs

L. Monique Ward

University of Michigan

Petal Grower

University of Michigan

Stephanie J. Rowley

University of Virgina

Author Note

Elizabeth A. Daniels is now at the Centre for Appearance Research at the University of the West of England, Bristol. Correspondence regarding this manuscript should be addressed to Elizabeth Daniels, Centre for Appearance Research, University of the West of England, Coldharbour Lane, Bristol, BS16 1QY, United Kingdom. . Email: Beth.Daniels@uwe.ac.uk.. https://orcid.org/0000-0001-9085-9262

Abstract

Theoretical work on objectified body consciousness, comprised of body surveillance and body shame, proposes several negative sequelae of holding an objectified view of the self (i.e., valuing the body primarily for its attractiveness to others). Few studies have examined associations between objectified body consciousness and academic beliefs and strategies among adolescent girls, especially girls of color. In the present study, we investigated a conceptual model whereby exposure to Eurocentric appearance norms through TV consumption is related to body surveillance and body shame which, in turn, are related to academic beliefs and strategies among a racially diverse sample of United States girls. Participants were 650 self-identified Asian American/Pacific Islander, Black, and White adolescent girls ($M = 15.45$, $SD = 1.50$). Higher Eurocentric appearance norms exposure was associated with higher body shame which, in turn, was associated with maladaptive academic beliefs and strategies for all three groups of girls. In contrast, higher Eurocentric appearance norms exposure was associated with higher body surveillance and just one academic belief, and in White girls only. Future work should continue to examine these associations among adolescent girls of color. In addition, we encourage educators to include body image content in media literacy curricula as a means of disrupting associations between Eurocentric appearance norms, body shame, and academic functioning.

Keywords: media, objectified body consciousness, body surveillance, body shame, self-objectification, academics

Struggling at School: Are Exposure to Television's Eurocentric Appearance Norms and Objectified Body Consciousness Associated Factors?

A central developmental task of adolescence is negotiating a changing and maturing physical body. This task may be especially challenging for adolescent girls, who mature within a culture that places extraordinary emphasis on female appearance. Within Western cultures, the dominant standard for female beauty is Eurocentric (Avery et al., 2021) and includes having a thin body, light skin, a clean manicured appearance concerning clothes, hair, and makeup, and enacting a sexy self-presentation (e.g., wearing tight or body-revealing clothing; Murnen & Smolak, 2013; Roberts & Zurbriggen, 2013). This standard is pervasive in media and advertising of consumer products (e.g., American Psychological Association, 2007; Ward, 2016). Because of this narrow standard, girls may come to view their body from an outsider's perspective and evaluate it more in terms of its attractiveness to others (termed *objectified body consciousness* or *self-objectification*; Fredrickson & Roberts, 1997; McKinley & Hyde, 1996) instead of for its functionality. A growing body of evidence documents a wide range of negative sequelae related to an objectified self-view in girls (for review, see Daniels et al., 2020) and adult women (for review, see Moradi & Huang, 2008). However, research has focused more heavily on certain theorized outcomes, such as eating disorders (Schaefer & Thompson, 2018), than others, such as academic beliefs (e.g., Daniels & Robnett, 2021). Similarly, some groups are over-represented in research samples (e.g., White college women; Moradi & Huang, 2008). In the present study, we aimed to address these gaps in the literature by: (1) investigating relations among exposure to Eurocentric appearance norms (EAN) on television, objectified body consciousness (OBC), and academic beliefs and strategies, (2) examining these patterns among adolescent girls in the United States (U.S.), and (3) testing the nature of these associations among girls of color.

Objectified Body Consciousness, Objectification Theory, and Race

Given the strong cultural emphasis on female appearance and sexual attractiveness, as exemplified in media in many Western contexts, psychologists contemporaneously proposed two conceptually related consequences of women's experiences in these environments: OBC and self-objectification. OBC (McKinley & Hyde, 1996) is comprised of three related elements: body surveillance (also called surveillance or self-surveillance in the literature), which is persistent monitoring of one's appearance; body shame, which is the result of feeling that one's body does not conform to cultural beauty standards; and appearance control beliefs, which is the belief that with enough effort, one can control one's appearance. Similar to OBC, self-objectification, as proposed by objectification theory, entails internalizing an external perspective as a primary means for perceiving one's own body (Fredrickson & Roberts, 1997). Thus, individuals prioritize how their bodies appear to others, rather than focusing on the body's functions or their internal traits (e.g., thoughts, personality) as an indicator of their value. Collectively, these beliefs and behaviors are theorized to result from living in a sociocultural environment that routinely sexually objectifies female bodies.

Both OBC and self-objectification constructs are commonly used to measure the effects of objectification (for reviews, see Daniels et al., 2020; Moradi & Huang, 2008). In addition, the surveillance subscale of the OBC Scale (McKinley & Hyde, 1996) is often used as a measure of self-objectification. Thus, there is considerable conceptual and measurement overlap across theories. We used the OBC framework here because it encompasses multiple components of objectification (McKinley & Hyde, 1996). As noted above, because there is considerable overlap between OBC and self-objectification, we will use these terms interchangeably. In referring to specific studies, we use terms used by the study's authors.

Whereas most girls in the U.S. are likely to experience objectification, the tenets of OBC and objectification theory do not apply uniformly to girls and women; instead, socio-contextual

factors, such as race/ethnicity, are believed to shape experiences of objectification (Schaefer et al., 2018; Watson et al., 2019). Thus, whereas girls and women of color share similarities with White girls and women in their experiences of and responses to objectification, they also face unique aspects of objectification shaped by racist ideologies and stereotypes and culturally-specific appearance norms (e.g., colorism; Schaefer et al., 2018; Watson et al., 2019). For example, stereotyped beliefs that Black women are hypersexual and promiscuous (i.e., the Jezebel stereotype) may be especially relevant to objectification; historically, the Jezebel stereotype was used as justification for the systematic rape of enslaved Black women (West, 1995). Asian American/Pacific Islander (AAPI) girls and women also face stereotypes that position them as hypersexual, for example, as a concubine, prostitute, or exotic geisha (Yokoyama, 2007). Despite their historical origins, these stereotypes and the consequences of these stereotypes persist into the present day. Thus, girls and women of color may be subjected to racialized aspects of objectification not shared by their White peers.

Although little research has examined OBC and self-objectification among Black and AAPI adolescent girls, findings among undergraduate women indicate that patterns identified by objectification theory do work as expected but are perhaps less consistent. For example, young Black (e.g., Claudat et al., 2012; Hebl et al., 2004; Overstreet & Quinn, 2012; Schaefer et al., 2018) and young AAPI women (Claudat et al., 2012; Grabe & Jackson, 2009) often report lower levels of self-objectification and body surveillance compared to White women. Yet despite these lower scores, the outcomes of self-objectification appear to operate as theorized for Black and AAPI women. Specifically, among Black women, greater body surveillance has been shown to predict greater body shame, which, in sequential tests, predicts outcomes such as disordered eating symptoms (Davies et al., 2020; Schaefer et al., 2018; Watson et al., 2013) and anxiety (Mitchell & Mazzeo, 2009). Among AAPI undergraduate women, greater body surveillance has

been associated with greater body dissatisfaction, greater body shame, greater consideration of cosmetic surgery, lower body esteem, and higher symptoms of eating disorders (Cheng et al., 2017; Frederick et al., 2007; Frederick et al., 2016; Ko & Wei, 2020). However, these associations are not always consistent. For example, some scholars have found weaker or null associations for Black women relative to White women (e.g., Claudat et al., 2012; Fitzsimmons-Craft & Bardone-Cone, 2012; Schaefer et al., 2018). In another example of these equivocal findings, Grabe and Jackson (2009) found that self-objectification predicted depressive symptoms among White but not AAPI undergraduate women. Therefore, in extending these analyses to adolescent girls, we assumed that the conceptual model proposed by theory would likely be meaningful for characterizing the experiences of all groups but were uncertain about the breadth and depth of associations for girls of color. Our aim was not to compare girls from different racial groups in levels of OBC, but rather to test whether and how the construct of OBC was relevant to adolescent girls from backgrounds that are understudied in this literature.

Media Contributions

What role could the media play in a process as personal as self-objectification? Analyses of media effects, in general, have targeted both the amount of time spent using media and responses to the specific content viewed. Time spent with media typically means less time for other activities, and U.S. adolescents consume media at high rates. According to a nationally representative survey of U.S. youth, 13-18 years old, youth consume just under seven and a half hours of entertainment media per day (7 hrs and 22 mins; Rideout & Robb, 2019). Almost 3 hours are spent watching television or videos (2 hrs and 52 mins), making this the most commonly used type of media among adolescents (followed by listening to music 2 hrs and 05 mins; gaming 1 hr and 36 mins; and using social media 1 hr and 10 mins). Indeed, across gender, race/ethnicity, and household income, U.S. youth spend a substantial amount of time per day

watching TV; moreover, youth of color (2 hrs and 04 mins Black youth, 1 hr and 43 mins Latino youth) watch significantly more television than White youth (1 hr and 24 mins). Of note, these data are from 2019 when data from the present study were collected. Concerned about the sheer amount of time that youth spend consuming media, researchers have examined impacts on cognitions and academic achievement as well as a number of other variables such as mental health (Cardosa-Leite et al., 2021). A systematic review (n = 58 studies) and meta-analysis (n = 30 studies) of associations between screen media use and academic performance found that TV viewing was inversely associated with academic performance among adolescents (Adelantado-Renau et al., 2019), suggesting the need to better understand mechanisms through which media use is related to academic functioning.

Related are concerns about young viewers' responses to specific media content, such as objectifying and thin-ideal images. Objectification theory posited media use as one mechanism by which girls and women come to self-objectify (Fredrickson & Roberts, 1997). Other theoretical frameworks such as the tripartite influence model also propose that media (as well as parents and peers) create appearance pressures and the internalization of narrow cultural ideals, which are therefore sources of body dissatisfaction and eating disturbance (Thompson et al., 1999). Furthermore, there is evidence that media and peers are more potent sources of influence on adolescent girls' body image compared to parents (Shroff & Thompson, 2006). Content analyses have shown that girls and women are commonly depicted in a thin-ideal (e.g., Flynn et al., 2015; Northup & Liebler, 2010) and/or sexually objectifying manner in TV programming (for reviews, see Ward, 2016; Ward et al., 2023). For example, in a content analysis of speaking characters in 275 prime-time TV programs airing in 2012, Smith and colleagues (2012) found that female characters were often thin (38% vs. 14% of male characters) and depicted in sexy attire (36% vs. 8% of male characters) with some skin exposure (35% vs. 11% of male

characters). Furthermore, experimental research has found that exposure to sexually objectifying imagery in varying types of media increases self-objectification in girls (e.g., Daniels, 2009 in the U.S.; Harrison & Fredrickson, 2003 in the U.S.; Vandenbosch et al., 2017 in Belgium).

These patterns are consistent with a meta-analysis examining the effect of sexualizing media use on self-objectification, primarily in adults (Karsay et al., 2018). This study included 54 papers containing 50 independent studies and 261 effect sizes; 11 samples had a mean age under 18. A positive, moderate effect of consuming sexualizing media on self-objectification (r = .19) was found. This effect was independent of participant characteristics (i.e., age, gender, ethnicity, student status), study design, and publication year. Taken together, the empirical literature is consistent with theorizing that engagement with objectifying media increases girls' tendencies to hold an objectifying self-view and over-value their physical appearance (Fredrickson & Roberts, 1997). However, it is unclear whether these patterns are true for adolescent girls of color given the lack of research with racially diverse populations.

Indeed, there is a dearth of research examining how girls of color are affected by exposure to media imagery that prioritizes Eurocentric beauty norms. Some qualitative research has found that adolescent girls and young women of color believe that media disseminate a universal standard of beauty to which all women across racial and ethnic backgrounds are held and that includes being skinny, sexy, and light-skinned or White (Madden & Breny, 2016; Spurgas, 2005). Girls and women of color reported in this research that they are encouraged to imitate this narrow standard regardless of their own racial background and that they compare themselves to the women who conform to this standard that they see in media. Furthermore, survey research with African American college women has found that women who internalize societal beauty messages report more body image concerns and, in turn, greater eating pathology (Rogers Wood & Petrie, 2010; see also Jefferson & Stake, 2009). Thus, it appears that the body

image of girls of color may be negatively affected by exposure to Eurocentric beauty ideals present in media. Our study aims to examine whether greater exposure to EAN is related to greater OBC in adolescent girls of color.

Objectified Body Consciousness and Academic Beliefs and Strategies

An understudied domain likely to be impacted by holding an objectifying self-view is academics. Objectification theory proposed that self-objectification consumes attentional resources, thereby negatively affecting performance (Fredrickson & Roberts, 1997). A number of experiments have tested this proposition by priming participants to focus on their appearance before administering a cognitive task, for example a math test, and found poorer performance among participants induced to self-objectify (see Winn & Cornelius, 2020). This work suggests that state experiences of self-objectification draw attention and cognitive resources away from other activities, such as thinking and problem-solving. Extending this work, Daniels and Robnett (2021) investigated whether holding an objectifying self-view is related to long-term outcomes such as academic motivation and beliefs about cognitive competencies. They found that engagement in more appearance-focused social media behaviors (e.g., posting photos) was related to higher body shame and, in turn, to lower self-expectancies and higher perceived cost in math and science in early adolescent U.S. girls (70% White sample). These findings suggest that chronic overvaluing of one's appearance may have long-term negative impacts on girls' academic self-concept, including diminished beliefs about one's competencies and weaker academic motivation. Because the long-term consequences of holding an objectified self-view on girls' academic beliefs and behaviors have been understudied, we investigated associations with a core component of academic motivation – academic self-efficacy – as well as two academic strategies including self-presentation of achievement and help-seeking.

Self-efficacy entails beliefs about one's abilities in a given domain and is a key

component of achievement motivation (Marsh et al., 2017). Indeed, beliefs about academic ability are among the strongest predictors of academic success (Wigfield & Cambria, 2010). Given the importance of self-efficacy for academic motivation, we studied whether OBC is related to lower academic self-efficacy. We also investigated relations with two academic strategies including self-presentation of low achievement (i.e., preference to prevent peers from knowing how well one is performing in school) and avoidance of help-seeking (i.e., not asking for assistance). These two strategies were selected because they may be shaped by peer processes that become salient in adolescence. Specifically, peer acceptance and popularity take on importance in adolescence among U.S. youth (Brown, 2011). These social needs are in conflict with academic achievement beginning in adolescence when youth begin to regard academic disengagement more positively (Gorman et al., 2002; Juvonen & Murdock, 1995). For example, in one study, the peer status of smart and hard-working students decreased from most popular among fourth graders to least popular among eighth graders, whereas the peer status of students low in effort and low in achievement increased from least popular among fourth graders to most popular among eighth graders (Juvonen & Murdock, 1995). Adolescents who fear that their academic success will threaten their standing with their peers may engage in self-presentation strategies, such as hiding their grades or effort, to avoid negative peer evaluations (Zook & Russotti, 2013). In the present study, we expected that girls who are accustomed to monitoring themselves from an outsider's perspective (i.e., are high in OBC) would be especially sensitive to peer evaluations and, therefore, be more likely to present themselves as low in academic achievement and avoid help-seeking so as to prevent negative evaluations from their peers.

Feelings about one's academic competence, motivation, and self-concept are relatively unstable and vulnerable to stereotypes (e.g., Aronson & Steele, 2005). For example, a robust literature has shown that gender and racial stereotypes about competence undermine

performance through stereotype threat (i.e., worry or concern one feels about not confirming to a negative stereotype about their social group; Steele & Aronson, 1995) in women and people of color. Stereotype threat is also related to avoidance of challenge, disidentification with academics, and rejection of feedback, which may hurt achievement in these groups (Aronson & Steele, 2005). Similarly, sexualized gender stereotypes (i.e., beliefs that girls should prioritize being sexually attractive to boys; Brown, 2019), internalized sexualization (i.e., the belief that being sexually attractive to men is an important component of one's identity; McKenney & Bigler, 2016), and conformity to gender role norms (i.e., valuing thinness and the importance of being in a romantic relationship for girls; Yu et al., 2021) are associated with a number of maladaptive academic beliefs and strategies (e.g., lower academic self-efficacy, lower levels of growth mindset and perseverance, higher levels of self-handicapping) and poorer academic performance among adolescent girls. This evidence highlights the importance of assessing relations between OBC and academic beliefs and strategies among girls of color who may be especially vulnerable to stereotypes due to their gender *and* racial identities. To our knowledge, existing research has not tested associations between OBC and academic beliefs and strategies with a large ethnically diverse sample of adolescent girls.

The Present Study

In the present study, we tested a conceptual model whereby exposure to EAN is related to body surveillance and body shame which, in turn, are related to maladaptive academic beliefs and strategies among racially/ethnically diverse U.S. adolescent girls. We predicted that higher exposure to EAN is related to higher body surveillance and body shame (Hypothesis 1) which, in turn, are related to more negative academic beliefs and strategies – including lower academic efficacy (Hypothesis 2), greater self-presentation of low achievement (Hypothesis 3), and greater avoidance of help-seeking (Hypothesis 4). We also explored the role of race, examining whether

the proposed conceptual model is relevant for AAPI, Black, and White girls. Given the limited research on OBC or self-objectification in adolescent girls of color and mixed findings among college women of color, we did not make a priori hypotheses about the fit of the conceptual model for girls of color.

Method

Participants

Online survey data were collected from 883 adolescent self-identified girls, 13 to 18 years old, via Qualtrics, an online survey company (https://www.qualtrics.com/). Participants self-identified their racial group. The initial sample included 356 AAPI girls, 317 Black girls, and 210 White girls. We removed 160 participants who completed less than 52% of the survey and removed 30 girls who failed or skipped both attention checks, leaving 693 girls. We retained girls (n = 94) who missed just one attention check in the sample because there is evidence that participants' attention varies throughout a survey (Hauser et al., 2018). As a final step, we removed girls who identified as biracial or multiracial across two of our three focal racial groups (e.g., identified as Black and White or as Black and AAPI), so that only girls who identified as belonging to just one of our three focal racial groups were retained. Removing these 43 bi- or multi-racial girls yielded 650 girls for our final analysis, with a mean age of 15.45 (SD = 1.50), including 221 AAPI (36.0%), 234 Black (34.0%), and 195 White (30.0%) girls. Approximately 86.3% of participants were born in the U.S. In terms of family structure, 79.9% were being raised mainly by two parents (either biological, step, foster, or shared custody), and 17.0% were being raised primarily by one parent, most often a mother. As a proxy for socioeconomic status, we obtained information about the highest level of education completed by a mother or primary caregiver (see Sirin, 2005 for a meta-analysis of SES and educational attainment). Participants were fairly evenly distributed across parental education levels, with 9.5% reporting that this

caregiver had not completed high school, 17.0% had earned a high school diploma, 18.4% had completed some college, 11.3% had earned a 2-year college degree, 26.5% had earned a 4-year college degree, and 17.4% had earned an advanced degree (e.g., MD, JD).

Procedure

Data were collected in 2019 after the study was approved by a university IRB. The sample was recruited by Qualtrics who solicited participants from within the U.S., based on age and race (i.e., AAPI, Black, and White girls, 13-18 years old). Adults in Qualtrics' participant pool with a daughter in the targeted age and racial groups were contacted to see if their daughter wanted to participate in the study. Parents provided consent on behalf of their child, and interested girls provided their own assent. Girls could decline to participate even if their parent provided consent. Girls completed the survey anonymously by following an email link. In addition to the scales listed below, participants provided information (not analyzed here) about other types of media use, gender beliefs, mental health, and racial attitudes. Participants took 30 minutes, on average, to complete the full set of measures and were provided a small amount of monetary compensation.

Given the racial diversity of the sample targeted, we also provide information about the racial positionality of the study's creators and this paper's authors. The survey was designed by two Black women faculty members and a multi-ethnic team of graduate students that included Asian, Black, and White women. The analysis for this paper was conceptualized by one of the Black women faculty members and was conducted and drafted by two White women scholars.

Measures

Exposure to Eurocentric Appearance Norms. Because television content changes from year to year, there is no one scale to reflect exposure to current, specific content. Instead, a common technique used to assess everyday exposure to a specific theme or message on

television is to ask participants to indicate their frequency of exposure to a list of television programs rated or determined to feature that content to some degree. These determinations are made via judgments by a set of external judges (e.g., Skowronski et al., 2021), by content analyses of the programs listed (e.g., Aubrey & Harrison, 2004), or by use of an external database such as the International Movie Database (IMDB) or Common Sense Media (e.g., Dajches et al., 2021). We used this common technique to determine participants' exposure to a EAN, defined as having a thin body, light skin, and a clean manicured appearance concerning clothes, hair, and makeup. This assessment was made via a two-step process.

As the first step, participants were provided a list of 48 TV programs compiled from online viewing information among teens and adults (e.g., Levin, 2017), from reports discussing viewing preferences among racial minority families (e.g., The Neilsen Company, 2018), and from data from previous published studies (e.g., Grower et al., 2019). Participants used a 1 (*never seen*) to 4 (*seen quite a bit/most or all episodes*) scale to indicate their frequency of exposure to each program. As the second step, we used information about the cast of each program, according to IMDB, to designate programs higher in EAN content. We examined the top 10 most frequently appearing cast members for each program and recorded the number of women in this top 10 and the number of EAN women in this top 10. We then selected programs that featured three or more characters/actors matching the ideal. This procedure yielded 18 individual programs: *Arrow, The Bachelor, The Big Bang Theory, Bull, Game of Thrones, Gotham, Grey's Anatomy, Lucifer, Modern Family, Orange is the New Black, Pretty Little Liars, Riverdale, Roseanne, Scandal, Stranger Things, Teen Wolf, Will & Grace*, and *Young Sheldon*. For our variable, we computed a mean across these 18 programs. We also created two alternative EAN exposure variables based on proportions of women or other configurations; because correlational analyses between these alternative exposure variables and the main study variables

yielded nearly identical associations, we used the variable described here.

  Objectified Body Consciousness. OBC was measured with the body surveillance and body shame subscales of the OBC Scale-Youth (OBC-Y; Lindberg et al., 2006). Unfortunately, there are measurement limitations for the appearance control beliefs subscale in the OBC-Y (Lindberg et al., 2006); therefore, we did not administer this subscale. Participants indicated their agreement using a 6-point scale anchored by 1 = *strongly disagree* and 6 = *strongly agree*. The surveillance subscale contains four items (e.g., "During the day, I think about how I look many times"). Mean scores were used with higher scores representing greater levels of surveillance. The surveillance subscale demonstrated good test-retest reliability ($\alpha = .81$) and strong internal consistency in its validation sample of 319 children, 10-12 years old ($\alpha = .88$; $M_{age} = 11.2$; 4% Black; 90% White) and among 87 female undergraduates, 18-27 years old ($\alpha = .89$; $M_{age} = 18.9$; 12% Asian; 3% Black; 79% White). It demonstrated equally good internal consistency here and across each ethnic group: full sample $\alpha = .88$; AAPI girls $\alpha = .89$; Black girls $\alpha = .82$; White girls $\alpha = .91$.

  The body shame subscale of the OBC-Y includes five items (e.g., "When I'm not the size I should be, I feel ashamed"). Mean scores were used with higher scores representing greater levels of body shame. The body shame subscale demonstrated adequate test-retest reliability ($r = .62$), and adequate internal consistency in its validation sample among the children ($\alpha = .79$) and among the undergraduates ($\alpha = .70$). The reliability was strong among the current sample: full sample $\alpha = .88$; AAPI girls $\alpha = .88$; Black girls $\alpha = .86$; White girls $\alpha = .89$.

  Academic Beliefs and Strategies. We included three scales to assess girls' academic beliefs and strategies. To examine girls' comfort and confidence with their academic capabilities, we used two subscales from the Patterns of Adaptive Learning Survey (Midgley et al., 2000). One subscale was the 5-item academic self-efficacy subscale (e.g., "Even if the work is hard, I

can learn it."). The second subscale was the 7-item Self-Presentation of Low Achievement subscale, which examined participants' efforts to avoid appearing intelligent in front of their peers (e.g., "I wouldn't volunteer to answer a question in class if I thought other students would think I was smart."). Participants responded to each item using a 5 point-scale anchored by 1 = *not at all true* and 5 = *very true*. Mean scores were computed for each subscale such that higher scores indicated greater perceived self-efficacy (sample α = .91; AAPI α = .91; Black α = .89; White α = .93) and greater self-presentation of low achievement (sample α = .93; AAPI α = .92; Black α = .92; White α = .94). The scoring manual reports that the scales have been used successfully among students in elementary, middle, and high school levels, and in ethnically diverse samples (55% minority participation, Midgley et al., 2000), and were initially tested among fifth and seventh graders.

The final scale focused on girls' comfort with academic help-seeking: Do they feel comfortable asking questions in class and demonstrating intellectual curiosity? To assess this construct, we used six items from the help-seeking scales tested by Rosas and Perez (2015). In their study, the authors used 13 items reflecting the benefits, threats, and costs of help-seeking, and nine items reflecting avoidance of help-seeking. We selected six high-loading items that reflected these notions: two items reflected benefits of help-seeking, one reflected costs, two reflected threats, and one addressed avoidance. Participants responded to the six selected items (e.g., "Asking questions in school makes me feel nervous") using a 6-point scale anchored by 1 = *strongly disagree* and 6 = *strongly agree*. Rosas and Perez (2015) tested and validated the larger set of items among Argentinian undergraduates (α = .93 for avoidance of help-seeking; α = .85, .72, and .90 for other subscales).

To determine the coherence of our shortened scale reflecting avoidance of academic help-seeking, we subjected the six items to a confirmatory factor analysis (CFA). After removing one

low-loading item and adding correlations between two pairs of items as recommended by the modification indices, the revised measurement model fit the data well: $\chi^2 (3) = 7.16$, $p = .07$, RMSEA = .05 [90% CI = .00, .09], CFI = .99, TLI = .98, SRMR = .02. Mean scores were computed such that higher scores indicated greater discomfort publicly engaging with academic content (i.e., help seeking). Reliability of this 5-item scale with the current sample was high (sample $\alpha = .96$; AAPI $\alpha = .98$; Black $\alpha = .87$; White $\alpha = .97$).

Results

Preliminary Analyses

We first conducted a series of descriptive statistics and correlational analyses to determine appropriate demographic covariates. In addition to considering statistical significance, we also chose to control for certain variables based on theoretical suppositions. Descriptive statistics and racial group differences for the main variables are provided in Table 1; zero-order correlations for each group of girls are provided in Table 2.

Concerning potential demographic correlates, we examined the extent to which participant age, maternal education (our proxy for socioeconomic status), and grade point average (GPA) were correlated with body surveillance, body shame, and our three academic outcomes. Age was not significantly associated with any of the other variables in our analysis. In contrast, both maternal education and GPA were significantly and positively associated with academic efficacy ($r_{GPA} = .26$, $p < .001$, $r_{maternal\ education} = .14$, $p < .001$); GPA was also negatively correlated with avoiding academic help ($r = -.12$, $p = .004$). Neither variable was related to self-presentation of low achievement or to body surveillance and body shame. In order to compare the results across the three academic outcomes, we chose to control for both maternal education and GPA on academic efficacy, self-presentation of low achievement, and avoidance of academic help-seeking.

Next, we assessed the normality and skewness of the data, as well as the degree of missingness for each of our variables of interest. Although there is some variability in how skewness and kurtosis are categorized, values greater or less than +/- 1.96 for skewness and for kurtosis generally indicate that the data are skewed or kurtotic (Hair et al., 2022). No variables exceeded this threshold. Regarding missingness, all variables were missing less than 5% of data, with the largest percentage of missing data being for EAN exposure at 4.6% ($n = 30$). This relatively small degree of missingness was addressed using full information maximum likelihood estimation in MPlus. A nonsignificant Little's MCAR test, $\chi^2 (37) = 38.90$, $p = .384$, suggests that the data was missing completely at random. Finally, we used Mahalanobis' distance to test for multivariate outliers within each racial group and found just a single multivariate outlier (among AAPI girls), which we retained in our analysis given the low frequency.

Main Analyses

To test our core hypotheses, we specified a path model whereby EAN exposure predicted body surveillance and body shame, which in turn predicted academic efficacy, avoidance of help-seeking, and self-presentation of low achievement. We also included both GPA and maternal education as controls on the three academic variables. Because we anticipated both indirect and direct effects would be significant in our model, we also included direct paths between EAN exposure and the academic outcomes (see Figure 1 for our conceptual model). We used the following indices and cut-offs as benchmarks of good fit: Root Mean Square Error of Approximation (RMSEA) $\leq .08$, Comparative Fit Index (CFI) and Tucker Lewis Index (TLI) $\geq$ .95, and Standardized Root Mean Square Residual (SRMR) $\leq .06$ (Kline, 2015). This model fit the full sample well, $\chi2(6) = 12.63$, $p = .049$, RMSEA $= .04$ [90% CI .00, .08], CFI $= .99$, TLI $=$ .96, SRMR $= .03$, such that higher EAN exposure was related both to higher body surveillance and body shame. Body surveillance was linked to less self-presentation of low achievement but

was unrelated to academic efficacy and avoidance of help-seeking. In contrast, body shame was linked to lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of academic help-seeking. See Figure 2 for full information regarding the coefficients for this model. Of note, we also tested an alternative model whereby body surveillance and body shame predicted EAN because it is possible that girls who have a higher OBC may seek out media that promote EAN. Although several indicators suggested good fit, $\chi^2(2) = 5.58$, $p < .062$, RMSEA = .05 [90% CI .00, .11], CFI = .99, SRMR = .02, one (TLI = .92) failed to meet the criteria we established for acceptable fit, and therefore we rejected this model.

To address our exploratory research question, concerning potential racial group differences in the associations between the main study variables, we ran a multigroup model that estimated the model's paths separately for each racial group. Multigroup modeling is an approach whereby researchers compare the overall model fit as increasingly strict equality constraints are placed on the data. In the first step, we tested an unconstrained model in which all the paths were freely estimated for each group. In the second step, we imposed equality constraints on all the regressive paths in the model (i.e., all predictive paths were forced to be equal between the groups being tested). In the final step, we imposed equality constraints on both the regressive paths and the correlational paths in the model.

Results of the unconstrained multigroup model showed excellent fit to the data, $\chi^2(18) = 21.52$, $p = .254$, RMSEA = .03 [90% CI .00, .07], CFI > .99 (but less than 1.00), TLI = .98, SRMR = .04. For AAPI girls, higher EAN exposure was significantly associated with higher body shame; body shame in turn predicted lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of help-seeking. Body surveillance was unrelated to any of the academic outcomes for AAPI girls. We observed a similar pattern of results for Black girls such that higher EAN exposure was associated with higher body shame; body shame in turn was

associated with lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of help-seeking. Body surveillance was unrelated to any of the academic outcomes for Black girls. Finally, for White girls, higher EAN was also significantly associated with higher body shame; body shame in turn was linked to lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of help seeking. Unlike for their peers, for White girls, higher EAN exposure was significantly associated with higher body surveillance; body surveillance in turn was linked to lower self-presentation of low achievement. See Figure 2 for full information about the model coefficients for each group.

Examination of the indirect effects among the full sample illustrated that EAN exposure had a significant indirect effect on academic efficacy, self-presentation of low achievement, and avoidance of help-seeking through body shame; the first of these associations was negative, and the latter two positive. None of the indirect effects were significant for body surveillance. In other words, EAN exposure was indirectly associated with lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of help-seeking through body shame, but not body surveillance. These indirect effects were replicated when looking at each racial group; none of the indirect effects were significant for body surveillance, whereas all indirect effects were significant for body shame across all groups (see Table 3 for full information).

To determine whether the observed path differences were statistically significant between the different groups, we constrained all the regressive paths in the model to be equal, while leaving the correlational paths to be estimated freely between groups (i.e., step 2 of multigroup model testing described above). This model fit the data well, $\chi^2(52) = 64.95$, $p = .107$, RMSEA = .04 [90% CI .00, .06], CFI = .98, TLI = .97, SRMR = .06, but less well than the unconstrained model. We used Satorra-Bentler chi-square difference testing to determine whether this model fit the data significantly worse than the unconstrained model; here, the change in chi-square was

nonsignificant (Satorra-Bentler chi-square difference = 43.39, $\Delta df = 34$, $p = .131$). The partially constrained model demonstrated that girls' EAN exposure was associated with higher body surveillance and higher body shame, that body surveillance was linked to lower self-presentation of low academic achievement, and that body shame was associated with lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of help-seeking. In the final step of multigroup model testing, we tested a fully constrained model, which forced both the regressive and correlational paths in the model to be equal for all three groups, which included correlations between the academic outcomes in addition to the main paths and controls that were included in the previous step (see Figure 3). Though the overall pattern and magnitude of results were comparable to the partially constrained model, the fit was slightly worse, $\chi^2(60) = 76.56$, $p = .073$, RMSEA = .04 [90% CI = .00, .06], CFI = .98, TLI = .97, SRMR = .07. Satorra-Bentler chi-square difference testing indicated that the fully constrained model did not fit the data significantly worse than the partially constrained model (Satorra-Bentler chi-square difference = 11.56, $\Delta df = 8$, $p = .172$). These results suggest that despite some variability in the magnitude of the coefficients for the associations tested, higher body shame is related to maladaptive academic beliefs and strategies (i.e., lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of help-seeking) among AAPI, Black, and White girls. In contrast, body surveillance's effects are equivocal, especially for AAPI and Black girls.

Discussion

An objectifying view of the self is proposed to consume attentional resources, thereby impairing performance (Fredrickson & Roberts, 1997), and empirical work supports this proposition (e.g., Winn & Cornelius, 2020). Furthermore, there is evidence that holding an objectifying self-view is related to maladaptive academic beliefs among adolescent girls (Daniels

& Robnett, 2021). Media consumption is proposed to be one mechanism through which girls and women develop objectifying beliefs about the self because idealized beauty norms are prevalent in media (Fredrickson & Roberts, 1997). In the present study, we tested a conceptual model whereby exposure to EAN on TV is related to body surveillance and body shame (components of OBC), which, in turn, are related to maladaptive academic beliefs and strategies among racially diverse U.S. adolescent girls. Results of structural equation modeling indicate that the conceptual model fit well for AAPI, Black, and White girls. Our study contributes to the literature by: (1) investigating under-studied outcomes of OBC or self-objectification, (2) examining a sample of adolescent girls in the U.S., and (3) testing the extent of associations among girls of color.

A small number of survey studies have found that, consistent with propositions set out by objectification theory (Fredrickson & Roberts, 1997), holding different types of objectifying beliefs that prioritize women's appearance is related to maladaptive academic beliefs and strategies among youth (e.g., Brown, 2019; Yu et al., 2021). Similarly, our study examined relations between holding particular objectifying beliefs – body surveillance and body shame – and academic beliefs and strategies. As predicted, we found that higher EAN exposure was related to higher body shame and, in turn, lower academic efficacy, greater self-presentation of low achievement, and greater avoidance of help-seeking. As expected, we also found that higher EAN exposure was related to higher body surveillance, but unexpectedly higher body surveillance was related to lower self-presentation of low achievement and was unrelated to academic efficacy and avoidance of help-seeking. Through multigroup modeling, we tested the associations between these variables for girls of different racial backgrounds and found that, although there was some variability in the magnitude of the coefficients for the associations, the paths from EAN exposure to body shame and the three academic beliefs and strategies worked as expected for all three groups of girls. In contrast, the paths from EAN exposure to body

surveillance and the three academic beliefs and strategies did not work as expected for any of the groups. Instead, among White girls only, higher EAN exposure was related to higher body surveillance, which, in turn, was associated with *lower* self-presentation of low achievement (and was unrelated to academic efficacy and avoidance of help-seeking).

These results are largely consistent with some prior findings that indicated that appearance-focused media use is significantly related to diminished academic beliefs via body shame, but not body surveillance, among a predominantly White sample of adolescent girls (Daniels & Robnett, 2021). Of note, unlike Daniels and Robnett (2021), we did find one significant path from body surveillance to an academic outcome. Further research is needed, however, to understand the unexpected direction of this association. Perhaps White girls who engage in heavy body surveillance do not want to hide their intellect because being seen as smart may help take some of the pressure and attention away from having to look beautiful, thin, and sexy. More broadly, however, our findings indicate that it is the affective component of OBC – body shame – that is related to maladaptive academic beliefs and strategies, rather than the cognitive component – body surveillance.

Collectively, the findings of these studies indicate that consumption of media high in EAN may have far-reaching consequences such that consuming such media is related to girls' beliefs about their academic competencies and related academic strategies. Specifically, in the long-term, body shame may lead girls and women to devalue and de-emphasize their cognitive competencies, perhaps leading to diminished academic effort and weaker interest in academic subjects. More research is needed to test this possibility further.

Racial Group Patterns

Testing whether the conceptual model is relevant to AAPI and Black girls, groups understudied in this research area, was a central aim of this study. A priori, we were unsure

whether the conceptual model would fit for AAPI and Black girls, given that the strongest empirical evidence to support the model has been found with White college women (Moradi & Huang, 2008). The multi-group model findings indicate that the model via body shame is applicable to AAPI, Black, and White girls with no significant differences in the magnitude of the associations across the three groups. In contrast, the model's path coefficients suggest that the model via body surveillance is specific to White girls. Thus, regardless of racial background, girls who are high in body shame are at risk of undervaluing their academic competencies and engaging in maladaptive academic strategies such as presenting themselves as low in academic achievement and avoiding help-seeking. These findings are an important test of whether the tenets of objectification theory apply to adolescent girls from different racial backgrounds.

These findings also contribute to the small body of literature showing that exposure to media that center Eurocentric beauty norms is associated with body image concerns in girls or women of color (Jefferson & Stake, 2009; Madden & Breny, 2016; Rogers Wood & Petrie, 2010; Spurgas, 2005). This is an important result given that there has been speculation (e.g., Spurgas, 2005) that viewing media images of White women is less problematic for girls or women of color because such images are culturally irrelevant due to varying beauty ideals across racial groups. In contrast, consistent with prior qualitative findings (e.g., Madden & Breny, 2016; Spurgas, 2005), our results indicate that exposure to EAN may be problematic for girls of color. It is argued (e.g., Ladd et al., 2022) that not only does mainstream media content prioritize certain Eurocentric appearance features, such as light skin, but it often *devalues* racially-specific features, such as darker skin tones and larger facial features. AAPI and Black girls who consume this content at high levels, therefore, may not only grow to feel self-conscious about their appearance, but also risk developing components of internalized racism.

Whereas the aim of our study was to test if the theoretical premises of objectification

theory are relevant for girls of color, we encourage future researchers to study race-specific objectification experiences, for example, being hypersexualized or exoticized, or race-specific appearance-norms. Recent theorizing and empirical work have found that perceived racial discrimination, racial dissonance, gendered racial microaggressions, perpetual foreigner racism, and racial teasing are related to self-objectification processes in adult AAPI women (Cheng et al., 2017; King & Iwamoto, 2022). Similarly, research aimed at understanding Black women's experiences of objectification has included skin tone surveillance, given the value placed on light skin tied to the legacy of slavery and racism in the U.S., and found that skin tone surveillance is related to body shame and skin-tone dissatisfaction (Buchanan et al., 2008). Together, these patterns highlight the need to consider racially-specific experiences and processes in future objectification research. Furthermore, future research might usefully examine whether racial or ethnic identity could be a protective factor in buffering against contributions of EAN exposure to girls' tendency to self-objectify (Schooler & Daniels, 2014).

Strengths, Limitations, and Future Directions

The present study has a number of strengths including testing a theory-driven model with adolescent girls, rather than young adult women, and including a sample with large numbers of AAPI and Black girls, groups understudied in this research area. Another strength of this study was the use of multigroup structural equation modeling, which allowed us to test whether there were statistically significant differences in the applicability of the tenets of objectification theory to the lives of a racially diverse sample of girls.

Like all studies, however, the present study has limitations that should be acknowledged. First, this study used a cross-sectional design and data were collected at one timepoint. Therefore, causal relations among variables cannot be determined; however, the model we investigated was based on existing theory – OBC and objectification theory – which have been

tested extensively in the literature. A longitudinal study design with multiple timepoints would allow for greater insight into the causal relations among variables. Second, only one type of media was tested in this study. Other types of media, such as music videos and appearance-oriented social media, likely matter, as well. Third, on a related point, media aimed at particular racial groups (e.g., Black-oriented media) should be assessed. Future researchers should consider the full spectrum of adolescents' media diets. Fourth, we encourage researchers to include other groups of girls, e.g., Latina, multi-racial, gender diverse girls, in future studies to determine if the conceptual model we tested is relevant to girls with other social identities. Fifth, we did not assess the extent to which participants internalize EAN in the media they consume. Future researchers should consider including a measure of media internalization in further model testing.

Practice Implications

Our findings indicate that exposure to EAN, which are common in the TV content that teens consume regularly is problematic. Accordingly, our findings have implications for media literacy interventions. Media literacy involves the ability to identify messages embedded in media and examine the effects of those messages on one's thoughts, feelings, and behaviors (Media Literacy Now, n.d.). Media literacy prevention programs focused on body image concerns often aim to disrupt the internalization of the thin-ideal, which is commonly displayed and rewarded in media (Kurz et al., 2021). A growing body of evidence indicates that media literacy skills may be protective against media-induced body image concerns. For example, a recent meta-analysis found that school-based media literacy interventions can be effective in reducing body dissatisfaction in youth, with small to medium effect sizes (Kurz et al., 2021; see also Zuair & Sopory, 2022). Cultivating media literacy skills through school-based media literacy programs thus could be a means by which to disrupt the relation between media

consumption and body image concerns in adolescent girls. Furthermore, it is possible that there are sequential effects of the relation between media literacy skills and body attitudes such that better media literacy skills are related to reduced body image concerns and, in turn, more positive academic self-concept and the use of more positive academic strategies (e.g., greater help-seeking). Whereas this proposition is speculative, if it is borne out in future research, school-based media literacy programs that target media-based body image concerns might be protective against downstream poorer school functioning among girls. Future research is necessary to test this possibility.

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Table 1

Descriptive Statistics and Racial/Ethnic Group Differences in Main Study Variables

Variable	M (SD)	Range	AAPI Girls	Black Girls	White Girls	Racial Diff	Posthoc Diff
Eurocentric Appearance Norms	1.78 (0.65)	1-4	1.73	1.84	1.75	1.58	-
Body Surveillance	3.90 (1.27)	1-6	4.05	3.85	3.79	2.55	-
Body Shame	2.71 (1.29)	1-6	3.01	2.58	2.53	8.84***	A > W A > B
Academic efficacy	3.89 (0.93)	1-5	3.88	3.91	3.88	.112	-
Self-Presentation of Low Achievement	2.13 (1.10)	1-5	2.46	2.04	1.88	15.70**	A > W B > W
Avoidance of Academic Help-Seeking	3.13 (1.14)	1-6	3.19	2.88	3.19	5.92**	W > B A > B

Note. *p* < .05. ** *p* < .01. *** *p* ≤ .001. Differences reported are *F* values. AAPI = Asian

American/Pacific Islander; A=AAPI, B=Black, W=White.

Table 2

Zero-Order Correlations between Central Variables

	1	2	3	4	5
1. Eurocentric Appearance Norms	-				
2. Body Surveillance	.01 *.03* **.35*****	-			
3. Body Shame	.25*** *.23**** **.38*****	.54*** *.49**** **.62*****	-		
4. Academic Efficacy	.06 *.04* **.10**	-.11 *-.15** **-.05**	-.27*** *-.26**** **-.15***	-	
5. Self-Presentation of Low Academic Achievement	.32*** *.32**** **.46*****	.01 *.11* **.18***	.25*** *.37**** **.44*****	.11 *-.13* **-.05**	-
6. Avoidance of Help-Seeking	.16 *.12* **.23***	.25** *.26**** **.34*****	.39*** *.43**** **.46*****	-.39*** *-.38**** **-.29*****	.27*** *.50**** **.44*****

Note. *p < .05, **p < .01. ***p < .001. Correlations for Asian American/Pacific Islander girls in plain text; correlations for Black girls in italics; correlations for White girls in bold.

Table 3.

Summary of Indirect Effects

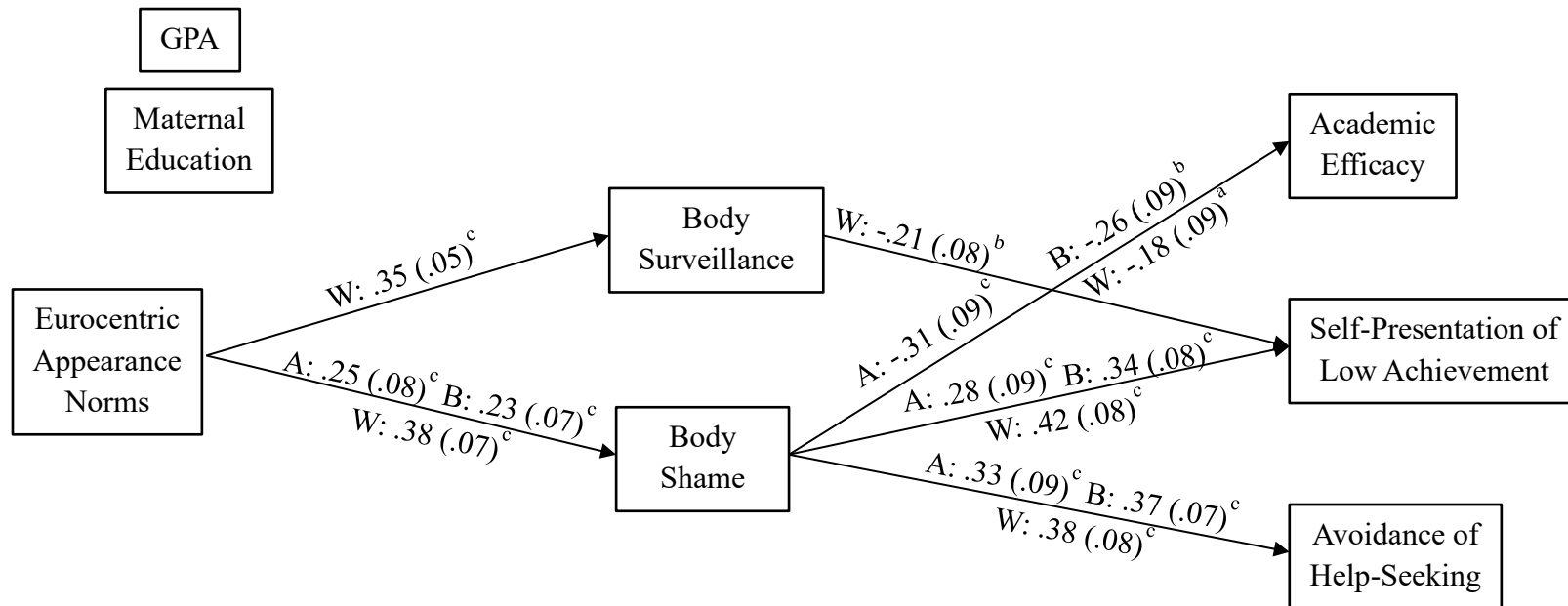|		*β*	95% CI
Full sample	EAN → Surveillance → Academic Efficacy	.00	-.01, .01
	EAN → Surveillance → Self-Presentation of Low Achievement	-.01	-.03, .00
	EAN → Surveillance → Avoidance of Help-Seeking	.01	.00, .02
	EAN → Shame → Academic Efficacy	-.07*	-.11, .05
	EAN → Shame → Self-Presentation of Low Achievement	.10*	.07, .14
	EAN → Shame → Avoidance of Help-Seeking	.10*	.07, .14
AAPI Girls	EAN → Surveillance → Academic Efficacy	.00	-.01, .01
n = 221	EAN → Surveillance → Self-Presentation of Low Achievement	-.01	-.03, .00
	EAN → Surveillance → Avoidance of Help-Seeking	.01	.00, .03
	EAN → Shame → Academic Efficacy	-.08*	-.12, -.05
	EAN → Shame → Self-Presentation of Low Achievement	.09*	.07, .14
	EAN → Shame → Avoidance of Help-Seeking	.10*	.07, .15
Black Girls	EAN → Surveillance → Academic Efficacy	.00	-.01, .01
n = 234	EAN → Surveillance → Self-Presentation of Low Achievement	-.01	-.03, .00
	EAN → Surveillance → Avoidance of Help-Seeking	.01	.00, .03
	EAN → Shame → Academic Efficacy	-.07*	-.11, -.05
	EAN → Shame → Self-Presentation of Low Achievement	.10*	.07, .15
	EAN → Shame → Avoidance of Help-Seeking	.10*	.07, .15
White Girls	EAN → Surveillance → Academic Efficacy	.01	-.01, .01
n = 195	EAN → Surveillance → Self-Presentation of Low Achievement	-.01	-.03, .00
	EAN → Surveillance → Avoidance of Help-Seeking	.01	.00, .03
	EAN → Shame → Academic Efficacy	-.07*	-.11, -.05
	EAN → Shame → Self-Presentation of Low Achievement	.10*	.06, .15
	EAN → Shame → Avoidance of Help-Seeking	.10*	.07, .14

Note. *p* < .05. EAN = Eurocentric Appearance Norms. AAPI = Asian American/Pacific Islander.

Figure 1.

Conceptual Model
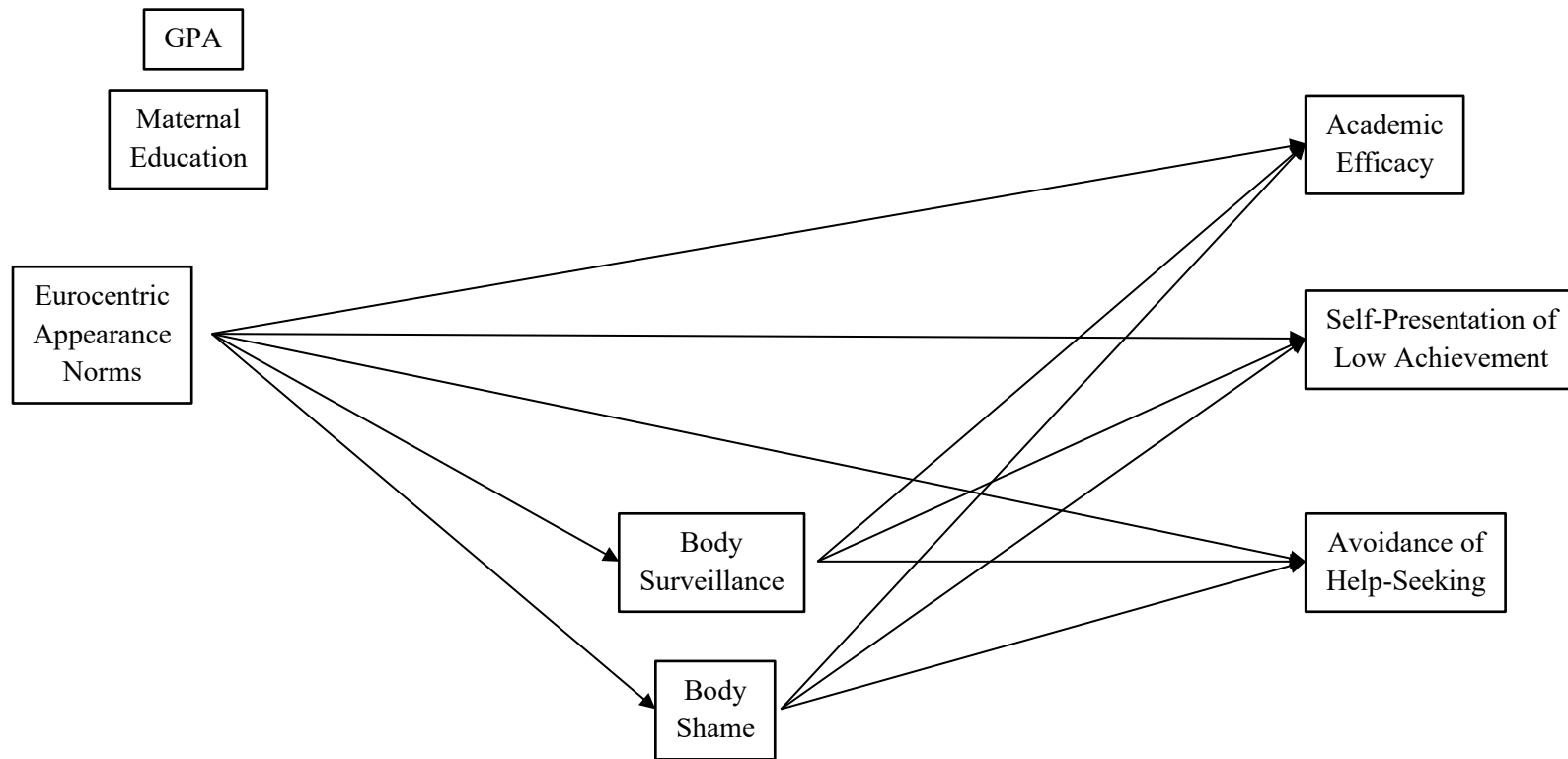
Note. GPA and mother's education were also regressed on the academic outcome variables.

Figure 2.

Unconstrained Model Results

GPA

Maternal Education

Eurocentric Appearance Norms

Body Surveillance

Body Shame

Academic Efficacy

Self-Presentation of Low Achievement

Avoidance of Help-Seeking

W: .35 (.05)[c]

A: .25 (.08)[c] B: .23 (.07)[c]
W: .38 (.07)[c]

W: -.21 (.08)[b]   B: -.26 (.09)[b]
W: -.18 (.09)[a]

A: -.31 (.09)[c]

A: .28 (.09)[c] B: .34 (.08)[c]
W: .42 (.08)[c]

A: .33 (.09)[c] B: .37 (.07)[c]
W: .38 (.08)[c]

$\chi^2(18) = 21.52$, *p* = .25, RMSEA = .03 [90% CI .00, .07], CFI > .996, TLI = .98, SRMR = .04

Note. [a] *p* < .05. [b] *p* < .01. [c] *p* < .001. Both GPA and maternal education were regressed on the academic outcomes, though the paths are not displayed here for simplicity.

Figure 3.

Fully Constrained Model Results
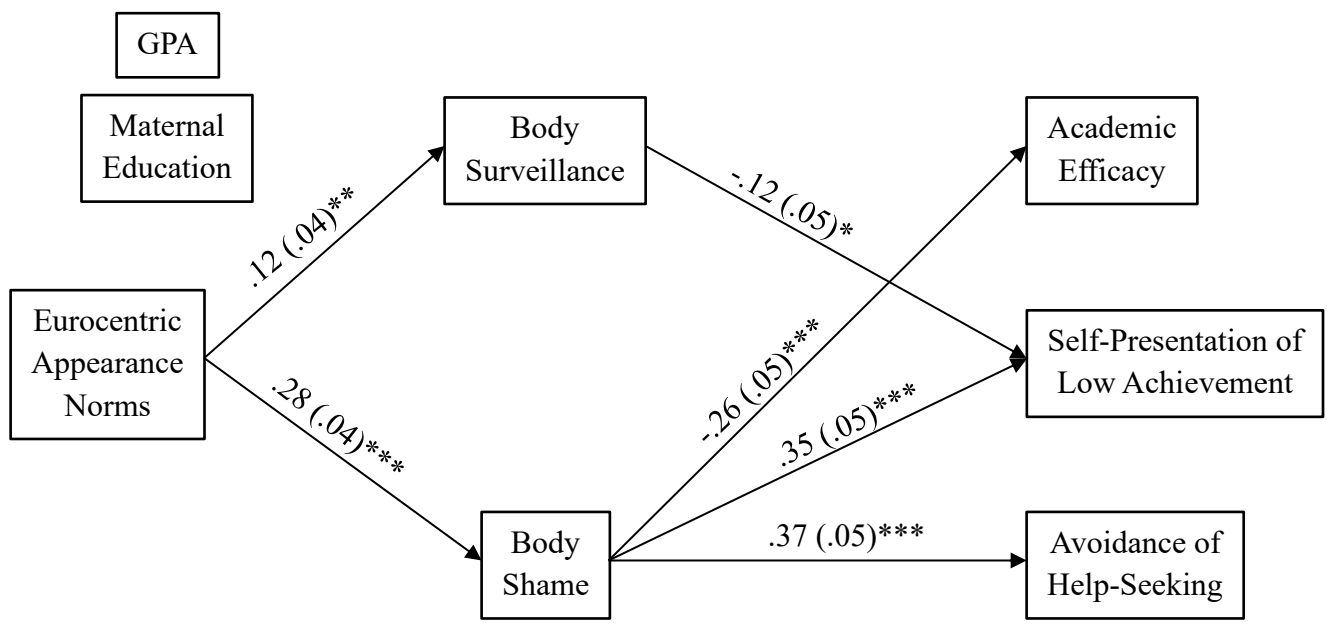
$\chi^2(60) = 76.56$, *p* = .07, RMSEA = .04 [90% CI = .00, .06], CFI = .98, TLI = .97, SRMR = .07

Note. * *p* < .05. ** *p* < .01. *** *p* < .001. Both GPA and maternal education were regressed on the academic outcomes, though the paths are not displayed here for simplicity.