

HOW SKIN COLOR DISCREPANCY IN WOMEN OF COLOR RELATES TO PERCEIVED  
RACISM, COLORISM, AND SKIN BLEACHING FREQUENCY

A Thesis  
by  
SHRADDHA SELANI

Submitted to the School of Graduate Studies  
at Appalachian State University  
in partial fulfillment of the requirements for the degree of  
MASTER OF ARTS

May 2023  
Department of Psychology

HOW SKIN COLOR DISCREPANCY IN WOMEN OF COLOR RELATES TO PERCEIVED  
RACISM, COLORISM, AND SKIN BLEACHING FREQUENCY

A Thesis  
by  
SHRADDHA SELANI  
May 2023

APPROVED BY:

---

Denise M. Martz, Ph.D.  
Chairperson, Thesis Committee

---

Lisa A. Curtin, Ph.D.  
Member, Thesis Committee

---

Doris G. Bazzini, Ph.D.  
Member, Thesis Committee

---

Rose Mary Webb, Ph.D.  
Chairperson, Department of Psychology

---

Marie Hoepfl, Ed.D.  
Interim Dean, Cratis D. Williams School of Graduate Studies

Copyright by Shraddha Selani 2023  
All Rights Reserved

## **Abstract**

### **HOW SKIN COLOR DISCREPANCY IN WOMEN OF COLOR RELATES TO PERCEIVED RACISM, COLORISM, AND SKIN BLEACHING FREQUENCY**

Shraddha Selani  
B.A., Ohio University  
M.A., Appalachian State University

Chairperson: Denise Martz, Ph.D.

Extant body image literature embraces a long history of research about people attempting to alter their skin color, especially skin darkening via sun tanning and other products. However, there is very limited literature about individuals who attempt to lighten their skin tones. Women of color in the United States are impacted by both racism and colorism, forces that sometimes translate into dissatisfaction with their skin tone and the dangerous practice of skin bleaching. This study developed a measure of skin color dissatisfaction called the Skin Color Discrepancy (SCD) Scale, a metric assessing the distance between natural and ideal skin tones, meant to be sensitive and inclusive of darker skin tones. To test the construct validity of the SCD, it was compared to two other existing skin color dissatisfaction measures, Skin Color Questionnaire (STQ) and Skin Color Satisfaction Scale (SCSS) with each regressed onto perceived racism, perceived colorism, and history and frequency of skin bleaching behaviors in separate multiple regressions. Contrary to expectations, the SCSS measure was a superior predictor of all the related constructs, suggesting that perception of skin tone dissatisfaction outperforms a measure of distance between natural and ideal skin tones. However, participants found the SCD's color palette more representative—and thus more inclusive—of their natural skin tone than the STQ scale's palette. The present findings suggest that the SCSS is a useful measure of skin color

dissatisfaction in relation to predicting colorism, racism, and skin bleaching behaviors and that the SCD may serve as a useful metric of distance from natural to ideal skin tone when studying individuals who wish to lighten or darken their skin color.

**Keywords:** skin color dissatisfaction, skin bleaching, racism, colorism, women of color

## **Acknowledgements**

I would like to thank my graduate mentor, Dr. Denise Martz, for her endless support and guidance throughout this project. This project would not be possible without her contributions. I would also like to thank my committee members, Dr. Lisa Curtin and Dr. Doris Bazzini for their valuable contributions to this project.

Thank you to Office of Student Research (OSR) grant and Student and Faculty Excellence (SAFE) fund to help compensate our participants in this project.

## Table of Contents

Abstract.....	iv
Acknowledgements.....	vi
Perceived Racism/Discrimination.....	2
Colorism.....	4
Bleaching Behaviors.....	5
Measurement of Skin Color and Dissatisfaction.....	6
Method.....	9
Participants.....	9
Measures.....	10
Procedure.....	15
Statistical Analyses and Hypotheses.....	16
Results.....	17
Discussion.....	18
Limitations.....	24
Conclusion and Future Clinical Implications.....	26
References.....	29
Appendix A: Skin Tone Questionnaire (STQ).....	40
Appendix B: Skin Color Satisfaction Scale (SCSS) Adapted.....	41
Appendix C: Skin Color Discrepancy (SCD).....	42
Appendix D: IRB Approval Email.....	43
Appendix E: Demographic Questionnaire.....	44
Appendix F: Detroit Area Study Discrimination Questionnaire (DAS-DQ).....	45

Appendix G: In-Group Colorism Scale (ICS).....	46
Appendix H: Frequency of Bleaching History Scale (FBHS).....	48
Vita.....	49



## **List of Tables**

Table 1: Descriptive Statistics and Correlations for Study Variables.....	38
Table 2: Regressions of Associations Between Skin Tone Dissatisfaction Measures and Related Constructs.....	39

## **How Skin Color Discrepancy in Women of Color Relates to Perceived Racism, Colorism, and Skin Bleaching Frequency**

In 2019, 51.5 million of all U.S. adults suffered from a psychological disorder (National Institute of Mental Health [NIMH], 2021) and the prevalence rate was higher among women (24.5%) than among men (16.3%). Research also suggests that the prevalence of any mental illness was highest for multiracial adults (31.7%; NIMH, 2021). Women of color reported more depressive symptoms, and they experience an intersectional effect on their psychological health due to a system of interrelated forms of oppression (e.g., racism, sexism, classism, heterosexism; Comas-Diaz & Greene, 2013). Specifically, women of color's membership to multiple oppressed groups is associated with more vulnerability for body image concerns and eating disorders possibly due to the sociocultural and environmental pressures to internalize negative self-images (Comas-Diaz & Greene, 2013). Further, while 50.3% of White individuals received mental health services, percentages were lower for other races/ethnicities (NIMH, 2021). This suggests the need for more research on the mental health needs, specifically the unique body image concerns, for women of color in the U.S.

More specifically, extant literature provides copious research (An et al., 2021; O'Leary et al., 2014; Sheeran et al., 2020; Zhang et al., 2012) on how many White individuals—some of whom experience skin color dissatisfaction—engage in the potentially harmful behavior of skin tanning (Friedman et al., 2015). However, there is minimal research examining how individuals of color, particularly women, may experience skin color dissatisfaction in the U.S. and how such body image dissatisfaction could drive the hazardous practice of skin bleaching behaviors. In addition, the diagnostic system for mental disorders has failed to recognize skin bleaching as a deleterious skin modification behavior that could impact mental health in individuals of color.

For example, for the diagnosis of Body Dysmorphic Disorder (BDD), the *Diagnostic and Statistical Manual for Mental Disorders* (5th ed., text rev.; DSM–5 TR; American Psychiatric Association [APA], 2022) noted skin tanning behavior, but not bleaching behavior, as an example for repetitive compulsive behavior aimed at alleviating appearance-related anxiety (Bjornsson et al., 2022). Thus, there is nominal research on how skin color dissatisfaction in people of color could relate to their unique social circumstances, including perceived racism and colorism in contemporary times. The current study examined how skin tone dissatisfaction in U.S. women of color is best measured by comparing the predictive quality of existing measures, as well as a newly developed metric of skin tone dissatisfaction discrepancy scale, for the social constructs of racism and colorism. Additionally, it examined their utility in predicting the harmful use of “beautification” products that lightens one’s skin tone.

### **Perceived Racism/Discrimination**

People of color have been the victims of prejudice and discrimination based on their racial categories for centuries in the U. S. (Wilder, 2017). Such prejudice has been rooted in the idea of White supremacy, whereby light skin color is associated with power and privilege, while darker skin tones are associated with oppression. *Perceived racism* is defined as a behavioral manifestation of negative attitudes, judgments, or unfair treatments toward members of a group from the perspective of the victim (Pascoe & Smart Richman, 2009). It is important to note that perceived racism—defined in this manner—may or may not be based on deliberate or unintentional discriminatory behavior (macro or microaggressions) perpetrated by others towards them. This form of experienced hatred may result in a sense of powerlessness and stress for its victims due to the uncontrollable nature of racism (Keith et al., 2010; Pascoe & Smart Richman, 2009).

Therefore, perceived racism has the potential to affect individuals' overall self-esteem and mental health.

In fact, Pascoe and Richman (2009) conducted a meta-analysis using 134 articles published between 1986 to 2007 and concluded that perceived discrimination is robustly associated with poor mental health. The mental health constructs included in this research were symptomatology scales for mental illness, psychological distress, and indicators of general well-being. Additionally, the relationship between perceived racism and negative mental health may be additive as increased perception of discrimination was associated with poorer mental health across all of the constructs that they examined (Pascoe & Smart Richman, 2009). Tafari-Ama (2016) proposed that individuals with higher perceived racism might attempt to lighten their skin tone or straighten their hair “as a consequence of internalized racism by the White supremacist narrative of power and self-identity politics” (Tafari-Ama, 2016, p.3). Hence, perceived racism may be associated with skin color modification behaviors, as an attempt to avoid social oppression. Moreover, this external interpersonal discrimination could be associated with internalization or self-stigma, related to skin tone (Tafari-Ama, 2016). Therefore, in this research, we explored the specific body image concern of *skin color dissatisfaction* for individuals who wish for their skin tone to be different from their natural color.

Bhagwat's (2012) unpublished dissertation has been the only study so far assessing how ethnic identification and perceived racism relate to one's skin color dissatisfaction. The study examined the relationship between skin tone, psychological well-being, and perceived discrimination in South Asian Americans. Perceived discrimination was measured by assessing reports of everyday discrimination that were adapted from the Detroit Area Study (DAS; Williams et al., 1997). Although perceived discrimination was positively associated with the

darkness of skin tone, Bhagwat (2012) found that perceived racial discrimination failed to mediate a relationship between skin tone and psychological well-being. Bhagwat speculated that appearance-related discrimination, resulting from darker skin tones, may be more directly related to stress than a more generic perception of race-related discrimination (Bhagwat, 2012).

Perceived racism, contextualized in White dominant society, is only one form of burden that people of color may face. *Colorism* is an additional prejudicial force that may adversely affect skin color dissatisfaction in some individuals in the U.S.

### **Colorism**

Colorism can be defined as the “prejudicial or preferential treatment of same-race people based solely on their color” (Norwood, 2015, p. 586). By giving value and privilege to White features, colorism is related to racism as it employs the same principle of reinforcing a system of hierarchy and inequality based on an individual’s skin tone, hair texture, and facial features (Wilder, 2017). Historically, colorism has its roots in all the cultures that were colonized by White settlers (Hunter, 2007). Lighter-skinned people of color may enjoy substantial privilege compared to their darker-skinned counterparts in the U.S. This was the result of the superiority maintained—in the form of privileges and resources—by the light-skinned colonial elite. Similarly, Asian Americans had the white skin ideal enforced by the colonial regime, which was later reinforced by associating leisure and wealth to lighter skin (Hunter, 2007). Hence, colorism is a by-product of racism as people of color give preference to lighter-skinned than darker-skinned individuals within their race.

Egbeyemi (2019) suggests that women are more affected by colorism than men, as it is often intertwined with sexism. Historically, women’s worth has been judged by others based on their physical attractiveness, with skin color being one of the most reliable predictors of beauty

(Egbeyemi, 2019). Unfortunately, darker-skinned women are viewed as less attractive than lighter-skinned women and this can put them at a disadvantage in society (Egbeyemi, 2019). Internalization of the white skin color ideal and the resulting distress may drive some individuals with skin color dissatisfaction to use “beautification” products to bleach their skin (Hunter, 2007).

### **Bleaching Behaviors**

The practice of skin bleaching is a harmful skin modification performed by individuals who perceive a disconnect between their natural skin color and their desired skin color. Extant literature suggests that both racism/discrimination and colorism appear to drive this behavior in women of color (Bhagwat, 2012; Hunter, 2007; Tafari-Ama, 2016). Skin bleaching, the deliberate practice of using toxic cosmetic chemical agents to lighten the complexion of one’s skin, poses serious health consequences (James et al., 2016). For those who use this product repetitively, skin bleaching is associated with an array of skin disturbances and disorders such as loss of elasticity in the skin, impaired wound healing, fungal infections, increased skin pigmentation known as exogenous ochronosis (“hyperpigmentation or bluish-black discoloration;” Lopez et al., 2012, p. 730), dermatophyte infections, scabies, severe acne, eczema, and irritant dermatitis (Mahe et al., 2003).

These health consequences can emerge during consistent use and after an individual stops the practice. The skin bleaching products contain three main ingredients: hydroquinone, mercury, and corticosteroids (Lopez et al., 2012). Hydroquinone is associated with liver damage, thyroid disorders, and fish odor syndrome (i.e., an offensive body odor that smells like rotten fish). Mercury has been associated with acute and chronic toxicity, psychiatric and neurological problems, and renal impairment (Lopez et al., 2012). Finally, corticosteroids have been

associated with Cushing's syndrome, which includes upper body obesity of the chest and face (Lopez et al., 2012). This deleterious practice is widespread and is practiced throughout North America, Western and Eastern Europe, the Caribbean, as well as throughout most of Asia and Africa (111 countries; Lopez et al., 2012). The underlying emotional and psychological factors responsible for initiation and maintenance of skin bleaching practices are important to explore given the suspected prevalence of bleaching worldwide and the array of negative health consequences (James et al., 2016). This research, therefore, aimed to study the practice of skin bleaching behavior in women of color further.

### **Measurement of Skin Color and Dissatisfaction**

Historically, body image researchers have created measures that examine how an individual views themselves and compares this to how they wish they looked (Vartanian, 2012). The amount of discrepancy between the two is a metric of body image dissatisfaction. For example, Gardner and Brown (2010) used visuals of human figurines that were in gradations from very thin to very large to examine current and ideal sizes that resulted in a body dissatisfaction discrepancy score. Hence, using discrepancy scores to measure dissatisfaction is common in the body image literature (Gardner & Brown, 2010; Williamson et al., 1993). Specifically, research related to body image suggests that body dissatisfaction is more highly related to the self-ideal discrepancy scores than measures assessing just the current or ideal size, perceptual overestimation, or actual body size (Williamson et al., 1993).

As an example, a skin tone dissatisfaction scales developed by Swami and colleagues (2013) uses a skin color questionnaire (STQ; Appendix A) created by the cosmetic industry in the United Kingdom (U.K.). The skin color ranged from 1 = darkest skin tone to 13 = lightest skin tone and was thought to capture the range of skin tones in the British population that they

sampled (Swami et al., 2013). It failed to represent darker skin tones often found in individuals of color and may have been considered non-inclusive/offensive for participants with the darker skin tones, thereby handicapping the representativeness of this measure. Due to the limited skin tone options, the existing measures may not be sensitive measures for capturing an accurate discrepancy score. A measure that addresses this limiting factor is needed to be more inclusive of the darker skin tones and more sensitive of the skin tone discrepancy scores.

Sahay and Piran (1997), in their study with South Asian and European Canadians, used the Secord and Jourard's (1953) Body-Cathexis Scale to measure overall body appearance and added items about skin color. The skin color items were assessed using a Visual Analogue Scale (VAS) ranging from 0-120 (0 = white to 120 = dark brown; Sahay & Piran, 1997). Their scale did not show pictures of varied skin tones, but only used the descriptor words like "white" and "dark brown" to communicate the markers on either end of the scale. Three continuous scores were obtained: a score for subjective skin color, a score for ideal skin color, and a score to indicate the researcher's rating of the participant's skin color. Therefore, the scale was not anchored by pictures of realistic skin tones, but instead an estimate of the difference between their subjective ratings. Unfortunately, the second author, Niva Piran, per a personal communication (2021), was unable to access the VAS scale, precluding comparisons in the present study.

The Skin Color Satisfaction Scale (SCSS, Appendix B) was created by Falconer and Neville (2000) to examine the various dimensions of skin color dissatisfaction, including self-perceived skin color (light-dark) and ideal skin color, with the first three items based on the Skin Color Questionnaire (SCQ; Bond & Cash, 1992). Additionally, items were added to make the measure more stable based on conversations with Black women and from Black literature



(Falconer & Neville, 2000). Although the SCSS has been used in various studies as a skin color dissatisfaction measure, its validity has not been assessed. The SCSS neglects to examine the magnitude of disconnect between a person's natural and desired skin tone, and thus, may not be an effective metric to examine reported history of bleaching, nor how racism and colorism are related to this body image construct.

### **Present Study**

The purpose of the present study was to develop a skin color dissatisfaction measure to address the aforementioned limitations with existing measures in the literature. We developed a skin color discrepancy scale (SCD; Appendix C) modeled after a make-up palette that was then adapted using Photoshop to attempt to make the gradations as even as possible. The SCD measure has 38-skin color visual choices available for the participants to choose from. This helped the SCD scale represent a greater range of skin tones than the other published scales. Secondly, to assess construct validity of the new SCD and the two previously developed skin tone dissatisfaction scales, we examined how each of them were related to the social constructs of perceived racism and perceived colorism, and the reported history of using bleaching products as a means of modifying one's skin color. Only women of color endorsing skin bleaching behaviors were included, as individuals who have never tried skin lightening products reported feeling more satisfied with their natural skin color (Rohimi et al., 2021) and would skew the skin color dissatisfaction scores. As the newly proposed SCD measured severity of discrepancy and was designed to be more inclusive at capturing darker skin tones, it was hypothesized that the SCD measure would account for the most variance for racism, colorism, and frequency of bleaching behavior compared to the existing skin color dissatisfaction measures (STQ & SCSS). The skin color dissatisfaction scales with the highest shared variance (standardized beta weight)

with the constructs of racism, colorism, and frequency of bleaching was considered the most sensitive scale for use with women of color.

Finally, we examined the perceived representativeness of the skin color dissatisfaction measures that use a skin color palette (STQ & SCD). To this end, participants were asked to identify which skin tone discrepancy scale (i.e., STQ or SCD) included their natural skin tone.

## **Method**

### **Participants**

A total of 457 participants that identified as women living in the U.S. were recruited from Prolific website and received a monetary compensation of \$9.32 per hour directly through the website after completing the survey. Office of Student Research (OSR) grant and Student and Faculty Excellence (SAFE) funds were received to provide compensation to the participants for this study. Participants had an average age of 27.6 ( $SD = 10.2$ ; *Age Range*: 15 - 70). Of the total sample of 457 participants, 40.3% identified as Asian, 18.2% Black, 15.3% Latin/Hispanic, 14.0% African American, 9.8% Biracial, 1.3% Native American, 0.7% Caribbean, and 0.4% Other. For reported level of education, 1.3% had some high school, 34.1 % graduated high school, 16.0% had an Associate's degree, 37.2% had a Bachelor's degree, 10.1% had a Master's degree, and 0.7% had either a Specialist degree or a Doctoral degree. Five participants were excluded from the study as they identified their racial identity as "White." Of the total sample, 111 (24.3%) participants reported no history of skin bleaching, with 346 participants (75.7%) endorsing a history of using the skin bleaching products. IRB approval was obtained (Appendix D) and we adhered to all APA ethical guidelines including securing informed consent of all participants (American Psychological Association, 2017).

## **Measures**

### ***Demographics***

A brief questionnaire (Appendix E) was used to obtain demographic information. The demographic information included age, race, ethnicity, sexual orientation, gender, and the highest level of education. The participants excluded from the study included individuals under the age of 18, or individuals who did not identify as women (i.e., male, non-binary, or trans-male).

### ***Skin Color Discrepancy (SCD) Scale***

We developed a skin color discrepancy (SCD) scale to assess one's skin color dissatisfaction modeled after a make-up palette that was then adapted using Photoshop to attempt to make the gradations as even as possible. As seen in the SCD measure (Appendix C), participants chose their natural skin tone and ideal skin tone on the skin color bar. To avoid scores with negative values, 38 points were added in this study to both ideal and natural skin tones – allowing for the distance between current and ideal skin tone to remain static. If these scores were the same, that individual had a SCD of zero. If they were discrepant, the ideal skin tone was subtracted from the natural skin tone to indicate the number of units of discrepancy in their desire for a different skin tone. Higher scores meant a desire for lighter skin, whereas lower scores indicated a preference for darker skin tones. The scores on the SCD scale ranged from 0 to 76, with larger discrepancy scores indicating more skin tone dissatisfaction. The SCD, as a skin tone dissatisfaction discrepancy score, was used as a predictor variable in this validity study.

In order to determine how representative the SCD measures was of our participants natural skin tone, we asked them to choose “yes” if they found it representative and “no” if they

found it not representative. Percentage of representativeness for SCD was calculated with the number of “yes” responses on the numerator and the total number of participants or responses ( $n = 346$ ) for the denominator, times 100.

### ***Skin Tone Questionnaire (STQ)***

Swami et al. (2013) developed a skin tone questionnaire with a 13-skin color chart (as seen in Appendix A) to measure skin tone dissatisfaction in their participants. This 5-item questionnaire with the skin chart had skin tones numbered from 1 = darkest to 13 = lightest and was initially developed for the cosmetic industry (Swami et al., 2013). The questions referred to the 13 skin tones as the participants entered the skin tone number that they found suitable for each question. Item 1 and 2 on the questionnaire indicated the participants’ dissatisfaction score, by asking participants to rate the skin color that most closely matched their current skin tone (actual) and the skin tone they would like to have (ideal). The discrepancy/dissatisfaction score was calculated by subtracting the participant’s score on item 1 from item 2 in Swami et al.’s previous research meaning that a positive dissatisfaction score indicated the participant’s desire to be darker, while a negative dissatisfaction score indicated their desire to be lighter (Swami et al., 2013). To avoid confusion for the purpose of our study, we reversed the calculation of the discrepancy score to match our SCD measure, meaning item 2 was subtracted from item 1 instead. Again, to avoid negative scores, we added 13 points to both the actual and ideal skin tone scores. The scores on the STQ scale ranged from 0 to 26. Of note, no literature was found that examined the construct validity of the STQ scale. The results from previous study (Swami et al., 2013) were  $M = 0.85$  ( $SD = 2.68$ ) that included women from all racial and ethnic identities, while current sample results were  $M = 1.32$  ( $SD = 2.26$ ) and only included women of color. The

STQ, as a metric of skin tone dissatisfaction discrepancy, was used as a predictor variable in this validity study.

The representativeness of the STQ measure was determined by asking participants whether their natural skin tone was represented – “yes” it did represent natural skin tone vs. “no” it did not represent their skin tone. Representativeness for STQ was calculated with the number of “yes” responses on the numerator and the total number of participants or responses ( $n = 346$ ) for the denominator, times 100, as a percentage metric.

### ***Skin Color Satisfaction Scale (SCSS)***

The Skin Color Satisfaction Scale (SCSS; Falconer & Neville, 2000) is a 4-item scale used to investigate the various perceptual dimensions of skin color dissatisfaction. These items were adapted from the Skin Color Questionnaire Scale (Bond & Cash, 1992) by Falconer and Neville: (a) “How satisfied are you with the shade of your own skin color?” (b) “Compared to the complexion (skin color) of members of my family, I am satisfied with my skin color”; (c) “I wish my skin was lighter”; (d) “Compared to the complexion (skin color) of others in my ethnic group, I am satisfied with my skin color. For Falconer and Neville (2000), these Likert-type items ranged from 1 = extremely dissatisfied/strongly disagree to 9 = extremely satisfied/strongly agree. Item (c) was reverse coded. Skin color *satisfaction* scores were calculated by adding the four items with higher scores indicating more skin color satisfaction and ranged from 1 to 36. The SCSS measure demonstrated the internal consistency of alpha at .71 with  $M = 7.7$  ( $SD = 1.43$ ) for a sample of African American undergraduate women (Falconer & Neville, 2000).

In the present study, the Likert scale was reversed, so that higher scores represented more skin color *dissatisfaction* (Appendix B). It had a high Cronbach’s alpha of 0.85 with a  $M = 16.6$

( $SD = 6.38$ ). The SCSS, as a perceptual metric of skin color dissatisfaction, was used as a predictor variable in this validity study.

### ***Perceived Racism***

Perceived Racism was measured using a nine-item subscale that assessed the reports of everyday discrimination in various situations from the Detroit Area Study Discrimination Questionnaire (DAS-DQ; Williams et al., 1997). The 9-items were rated on a six-point scale ranging from 1 = “almost every day” to 6 = “never,” so that lower scores indicated more racism. This scale demonstrated high Cronbach alpha values for the overall sample and each ethnic group (overall sample:  $\alpha = 0.90$ ; Asian Americans:  $\alpha = 0.91$ , Hispanic Americans:  $\alpha = 0.91$ , and African Americans:  $\alpha = 0.88$ ; Chou et al., 2012), and is consistent with other studies. Chou et al. (2012) reported average DAS-DQ scores by minoritized groups, including both men and women (i.e., Asian American:  $M = 18.72$ ,  $SD = 5.71$ ; Hispanic Americans:  $M = 19.55$ ,  $SD = 7.41$ ; and African Americans:  $M = 22.94$ ,  $SD = 7.55$ ).

In the present study, the Likert scale was reversed with 1 = “never” to 6 = “almost every day,” so that higher scores on the measure indicated more perceived racism (Appendix F). The highest perceived racism score possible was a 56, with higher scores indicating more frequent racism. Similarly in the current study sample, the DAS-DQ showed a high Cronbach alpha value ( $\alpha = 0.93$ ). As a means of normative comparison, DAS-DQ scores from the current sample of women of color, were  $M = 22.2$  ( $SD = 9.16$ ). The DAS-DQ, as a measure of perceived racism, was used as an outcome variable in this validity study.

### ***Perceived Colorism***

Perceived colorism was measured using the In-Group Colorism Scale (ICS; Harvey et al., 2017; Appendix G). The purpose of the ICS was to assess the meaning and significance of skin

color variations inside a community of color (Harvey et al., 2017). ICS is a 20-item Likert-type scale with 5 subscales with ratings ranging from 1 = “strongly disagree” to 5 = “strongly agree.” Higher scores on this scale indicated higher endorsement of the colorism ideology, with the highest perceived colorism score being 100. Overall, the five subscales related to a person’s self-concept, perceptions of society’s reactions to skin color, and their own skin-color bias (Harvey et al., 2017). Specifically, the Self-Concept subscale (4 items) measured the degree to which the participant’s self-conception is based on their skin color (e.g., “My skin tone is an important part of my self-concept”). The Impression Formation subscale (4 items) assessed the degree to which participants form impressions of other people in their ethnic group based on their skin color (e.g., “You can tell a lot about a person by their skin tone”). The Attraction subscale (4 items) measured the degree to which respondents find certain skin colors more romantically attractive than others (e.g., “I prefer light skin over dark complexion skin when choosing romantic interests). The Affiliation subscale (4 items) assessed the degree to which participants preferred to have friendships and associate with who have a certain skin color (e.g., “I usually choose who I’m going to be friends with by their skin tone”). Lastly, the Upward Mobility subscale (4 items) measured the degree to which participants believed that the upward mobility of people depends on their skin tone (e.g., “Skin tone plays a big part in determining how far you can make it”).

The subscales of ICS demonstrated good Cronbach alphas of 0.87 (Self-Concept), 0.73 (Impression Formation), .90 (Upward Mobility), .81 (Attraction), and 0.80 (Affiliation) in the scale development and validation study (Harvey et al., 2017) with a sample of Black Americans. Their internal consistency was high ( $\alpha = .91$ ; Harvey et al., 2017), which is comparable to the current study’s Cronbach’s alpha at 0.88.

Results from previous studies (Harvey et al., 2017) with Black/African Americans were Self-Concept ( $M = 12.92$ ,  $SD = 4.32$ ), Impression Formation ( $M = 6.7$ ,  $SD = 3.33$ ), Upwards Mobility ( $M = 11.38$ ,  $SD = 4.1$ ), Attraction ( $M = 8$ ,  $SD = 3.62$ ), and Affiliation ( $M = 6.43$ ,  $SD = 2.96$ ; Burns, 2021). As a sum of these subscale means, Burns (2021) found a total average of 45.33, whereas this sample produced an average of 51.0 ( $SD = 13.0$ ). ICS, as a measure of perceived colorism, was used as an outcome measure in this validity study.

### ***Frequency of Bleaching History Scale (FBHS)***

A self-report frequency measure (Appendix H) was used to quantify the frequency of skin bleaching products used by women in the past year. Participants rated their product usage on a 5-point Likert scale ranging from 0 = never to 4 = daily. Higher scores meant more bleaching frequency. Of note, the time in between each number on this Likert scale differed making this an ordinal scale. The FBHS, as a metric of frequency of skin bleaching product use, was used as an outcome variable in this validity study.

### **Procedure**

Female participants, who were U.S. women of color, over the age of 18, and who endorsed using products for skin beautification/lightening (Olay, Pond's & L'oreal) within the past year were recruited on Prolific linking to a Qualtrics survey. The survey included a consent form, demographic questions, and other scales (STQ, SCD, SCSS, perceived racism, perceived colorism, and bleaching frequency). Once the participants completed the Qualtrics survey, they received monetary compensation of \$9.32 per hour through Prolific directly. The amount of time it took our research assistants to complete these surveys was used to estimate the amount of time (average of 7 minutes) as the financial compensation that the study participants received. The participants were paid using research funds of \$550 total from the Student and Faculty



Excellence (SAFE) grant and the Office of Student Research (OSR). Only women who endorsed a history of using bleaching products were included in these analyses ( $n = 346$ ).

### **Statistical Analyses and Hypotheses**

This study aimed to evaluate the construct validity of existing skin color dissatisfaction measures (STQ, SCD, & SCSS) by examining their relationship to perceived racism, perceived colorism, and frequency of skin bleaching behavior. The first three analyses were validity tests of the skin tone dissatisfaction scales and their relationships with the two social constructs of interest (perceived racism & colorism) and the frequency of skin bleaching behavior. The fourth analysis determined which of the skin tone discrepancy scales (STQ & SCD) had better representativeness as an inclusive measure of women of color's natural skin tones.

Hypothesis 1: Using a multiple regression, with SCD, STQ, and SCSS as predictors and perceived racism (DAS-DQ) as the outcome, the SCD scale was expected to account for the highest variance using standardized beta weights, compared to STQ or SCSS scales.

Hypothesis 2: Using a multiple regression, with SCD, STQ, and SCSS as predictors and perceived colorism (ICS) as the outcome, the SCD scale was expected to account for the highest variance (standardized beta weights), for ICS, when compared to the standardized beta weights for the STQ or SCSS scales.

Hypothesis 3: Using a multiple regression, with SCD, STQ, and SCSS as predictors and frequency of bleaching behavior (FBHS) as the outcome, the SCD scale was expected to account for the highest variance (standardized beta weights), compared to STQ or SCSS scales.

Hypothesis 4: Using a McNemar test for paired nominal data, the SCD was expected to have greater percentage of representativeness compared to STQ.

## Results

In the 457 female identifying participants, 75.7% ( $n = 346$ ) endorsed practicing skin bleaching in the past year, whereas 24.3% did not. As noted above, those reporting no use of bleaching products were removed from the sample leaving 346 participants of interest with a history of skin bleaching. Table 1 illustrates the descriptive data for each of the six variables in this study and the Pearson product moment correlations between each. Results showed that there were positive relations between most of the six variables with some exceptions: no relationship between for STQ and perceived racism ( $p = .12$ ) and no relationship between perceived racism and bleaching frequency ( $p = .67$ ). Of note, there was a positive correlation between STQ and SCD measures,  $r(344) = .67, p < .001$ . Given that most of the predictor variables showed some correspondence with the outcomes of interest, the proposed regression analyses were conducted.

### Validity Test on Skin Tone Dissatisfaction Measures

Validity of the skin color dissatisfaction scales was assessed by comparing how the STQ, SCD, and SCSS as grouped predictor variables related to the individual constructs of interest as outcome variables (DAS-DQ, ICS, & FBHS). The correlations revealed STQ and SCSS were highly correlated. However, the collinearity statistics (i.e., VIF, Tolerance) were all within acceptable limits for STQ ( $VIF = 1.96, Tolerance = .51$ ), SCD ( $VIF = 1.86, Tolerance = .74$ ), and SCSS ( $VIF = 1.36, Tolerance = .54$ ), so multicollinearity was not a concern. To this end, three multiple linear regressions were conducted wherein racism, colorism, and bleaching frequency were regressed onto the STQ, SCD, and SCSS measures separately. Table 2 summarizes these results. The first multiple regression analysis tested if STQ, SCD, and SCSS predicted participant's DAS-DQ scores. The results of the regression indicated the predictors explained 3.5% of the variance ( $R^2 = .035, F(3, 342) = 4.17; p = .006$ ). In the final model, the SCSS was

the only significant predictor of DAS-DQ scores ( $\beta = 0.13$ ,  $t(342) = 2.10$ ,  $p = 0.036$ ). The second multiple regression analysis tested if STQ, SCD, and SCSS predicted participant's ICS scores. The results of the regression indicated the predictors explained 18.8% of the variance ( $R^2 = .188$ ,  $F(3, 342) = 26.5$ ;  $p < .001$ ). In the final model, the SCSS ( $\beta = 0.25$ ,  $t(342) = 4.32$ ,  $p < .001$ ) and STQ ( $\beta = 0.19$ ,  $t(342) = 2.83$ ,  $p = 0.005$ ) were significant predictors of ICS scores. Lastly, the third multiple regression analysis tested if STQ, SCD, and SCSS predicted participant's FBHS scores. The results of the regression indicated the predictors explained 10% of the variance ( $R^2 = .100$ ,  $F(3, 342) = 12.6$ ;  $p < .001$ ). In the final model, the SCD ( $\beta = 0.20$ ,  $t(342) = 2.85$ ,  $p = 0.005$ ) and SCSS ( $\beta = 0.16$ ,  $t(342) = 2.71$ ,  $p = 0.007$ ) were significant predictors of FBHS scores.

### **Comparing the Representativeness of the Visual Skin Color Dissatisfaction Measures**

A McNemar test was performed to assess the relationship between color palette natural skin tone representation (yes or no) and the two skin color dissatisfaction scales (STQ & SCD) by using ratings from the 346 women participants. Percentages of "yes" responses for each scale were calculated with the number of "yes" responses on the numerator and denominator with the total number of participants or responses ( $n = 346$ ) times 100. There was significant difference between the two variables,  $X^2(1, N = 346) = 9.06$ ,  $p = .003$ ; STQ = 75.7% representation, SCD = 82.9% representation. The participants found the SCD's color palette more representative - and thus more inclusive - of their natural skin tone than the STQ scale's palette.

### **Discussion**

While there is ample extant literature examining how White individuals engage in the deleterious skin tanning behavior and its negative consequences on their health (An et al., 2021; O'Leary et al., 2014; Sheeran et al., 2020; Zhang et al., 2012), there is limited research

examining skin color modification behaviors (e.g., skin bleaching) in individuals of color and the negative impact bleaching might have on their wellbeing. Given that individuals of color have been overlooked in previous research on skin tone dissatisfaction, this study focused on creating an alternative, more inclusive skin color dissatisfaction measure that may serve as a better predictor of the prejudicial forces of racism and colorism faced by people of color. Further, since the practice of skin bleaching is known to be hazardous and marketed to individuals of color as a “beautification” practice, this study also examined how a history of skin bleaching behavior was associated with skin tone dissatisfaction and these social constructs. Previous research found that individuals who were dissatisfied with their skin color were more prone to using skin bleaching products to lighten their skin color, and those authors speculated that this may be a consequence of prejudiced reactions from both ingroup (colorism) and outgroup (racism) members (Choma, & Prusaczyk, 2018; Harper & Choma, 2019; McCleary-Gaddy, & James, 2022; Rohimi et al., 2021).

The results of this study suggested that the SCSS measure was the best predictor of racism, colorism, and bleaching behaviors, accounting for significant variance across all the outcome variables. Counter to the hypothesis, this means that women’s *perception* of skin tone dissatisfaction (SCSS measure; Falconer & Neville, 2000) was a superior predictor compared to metrics of skin tone discrepancy (SCD & STQ; Swami et al., 2013) in relation to the cultural constructs of perceived racism and colorism. Additionally, the skin tone discrepancy metric with a more inclusive palette of skin color items (i.e., 38 varied tones; SCD) was viewed as more representative by women of color of their natural skin color, compared to the Swami et al.’s (2013) scale (13 varied tones) that has been previously used in research.

## **How the Skin Tone Scales Related to Skin Bleaching Frequency**

There is a precedent for using a skin color discrepancy metric as a link to self-reported tanning behaviors in the scientific literature for White individuals who have skin color dissatisfaction (Prichard et al., 2014). We conceptualize skin bleaching behavior for individuals of color as akin to the use of tanning for White individuals striving for darker skin tones. These products are marketed to women of color as beautification cosmetics, despite their associations with serious health consequences. As such, this demonstrates the dangerous appeal of attempting to attain the White ideal (Choma & Prusaczyk, 2018; Lopez et al., 2012). To determine the frequency of skin bleaching behavior in women of color, this measure was created to determine how often women of color used skin bleaching products in the past year. The SCD measure was found to be more predictive of skin color bleaching behaviors, than the SCSS and STQ, when they were compared against one another. Since the SCD included a wider range of skin tones, the SCD could have captured a higher magnitude of discrepancy that is more accurate of a woman's skin tone distance between her current skin color compared to how light she wishes to be. The STQ – on the other hand by excluding the range of darker tones - may have created artificial range restriction within its own discrepancy variance. Hence, the better accuracy of distance between natural and ideal skin tones using the SCD versus the STQ may relate to the behavioral practice of using beautification products to lighten one's skin color.

Further, since there is a documented link between habitually assessing one's skin tone and use of more skin bleaching products (Choma & Prusaczyk, 2018), it could be that women of color, who are most aware of their skin color variations (i.e., like those who use makeup palettes), are able to use the SCD scale in a more nuanced manner given the time spend focusing on their skin tone. This could be comparable to women who are dieting to lose weight and might

more accurately “know” the calorie content of foods in order to better restrict their food intake. As such, women of color who wish to embody the White skin ideal might be more in tune to their skin tone dissatisfaction and use the bleaching products like “Fair and Lovely” more frequently (Choma & Prusaczyk, 2018).

### **How the Skin Tone Scales Related to Racism and Colorism**

These results did not support the hypothesis that the newly developed skin color discrepancy (SCD) measure – thought to be more inclusive of darker tones – would be the best predictor of racism, colorism, and skin bleaching behaviors in women of color. To the contrary, women’s perception of their skin tone dissatisfaction (SCSS measure; Falconer & Neville, 2000) was most related to their perceived experiences of racism, colorism, and use of skin bleaching products when compared to either of the skin tone discrepancy measures (SCD, STQ; Swami et al., 2013). In this case, a skin tone scale that descriptively assessed numerous ways that women were dissatisfied with their skin color (SCSS) was better at understanding the social context and consequences of being a woman of color in a White skin ideal society, as compared to the visual skin tone measures examining how far away their natural skin color is from what they considered to be their ideal skin tones. The SCSS measure goes beyond just capturing one’s discrepancy with their skin tone, as it includes items about the contextual factors (e.g., “Compared to most others in my ethnic group, I believe my skin color is \_\_\_\_\_”) that may affect one’s feelings and judgement regarding their skin color. According to “Objectification Theory” by Fredrickson and Roberts (1997), socio-cultural influences (i.e., racism, colorism, media exposure) may impact women’s interpretation of themselves by internalizing other’s opinions within their own personal views of themselves (Prichard et al., 2014; Harper & Choma, 2019; Cheng, 2022).

Although this was not hypothesized - in hindsight - these results are supported by body image literature that emphasizes how the context of the body image items primes individuals to consider how and why they could be experiencing dissatisfaction with their natural skin color (Ullrich-French & Cox, 2022). Both colorism and perceived racism could also be considered contextual cues for women who are evaluating how they feel about their respective skin tone. For example, by having to consider their skin color in the context of their family members or racial/ethnic group, they may become more aware of their skin tone and the biases they may have about it.

According to the *Body Image: An International Journal of Research*, one's body image is their personalized view of their physical appearance—comprising their feelings, perception, thoughts, and beliefs about their body—which has an impact on how they behave towards it (Cash, 2004; as cited in Science Direct, 2023). In addition, cultural components in body image measures help a person comprehend the influence of body dissatisfaction reliably and holistically in ethnically diverse individuals (Sotiriou, 2021). Specifically for women of color, media contributes to high body dissatisfaction by objectification, social comparison, and appearance-based commentary to enforce the White skin ideal (Ching & Wu, 2022; Harper & Choma, 2019; Khasru, 2022). Thus, including contextual factors and cultural components (i.e., ingroup and outgroup comparison items) when assessing one's body image can improve the predictability of the measure as it relates to the consequences of having darker skin as a woman of color in a society with a White skin ideal.

### **Assessing Inclusivity of Skin Tone Discrepancy Measures**

The skin tone discrepancy metric with a more inclusive palette of skin color items (i.e., 38 varied tones; SCD) was viewed as more representative by women of color of their natural

skin color (83%), compared to the Swami et al.'s (2013) scale (76%; 13 varied tones) that has been previously used in research. This higher sense of inclusivity ("I can find my skin tone on this measure") is considered an improvement for future research that wishes to capture the disconnect in one's natural skin color compared to what is desired. This finding supports the idea that having more skin tone options is more inclusive for people of color, since it gives them a realistic range of skin tone options to choose from. As such, future research should use the SCD instead of the STQ, if a discrepancy scale is needed. However, future exploration is needed to determine why this newly developed SCD measure accounted for only 83% and not 100% representativeness, suggesting that some of the women of color could not find their natural skin tones on this scale. This limitation of the SCD will be discussed later. Additionally, future studies may want to explore how feeling represented may be related to other variables associated with skin color dissatisfaction.

### **Other Predictors of Racism, Colorism, and Skin Bleaching**

Despite the interpretations made above linking these results of skin color dissatisfaction to the social forces of perceived racism and colorism and practice of skin bleaching, it is acknowledged that these multiple regressions only explained part of these complex associations. How cultural oppression affects women's body image, including dissatisfaction with skin tone, is probably more intricate than the variables that were assessed in this study. For example, literature has suggested that depression, childhood abuse, and trauma are associated with skin bleaching behaviors (James et al., 2016; Peltzer et al., 2016). Perceived racism is related to low self-concept, hopelessness, suicidality, and psychological distress (Castle et al., 2011; Chao et al., 2014; Nyborg & Curry, 2003). Moreover, perceived colorism has been linked with lower level of educational success, low self-esteem, and systemic inequalities (Keith & Monroe, 2016;



Rahman, 2020). Future research on how skin color dissatisfaction relates to these cultural factors and beautification practices will wish to include more comprehensive measures of mental health to help us better understand the consequences of contemporary racial oppression on women of color.

### **Limitations**

The current study had several limitations worthy of discussion. First, there were approximately 17% of women that did not rate the SCD measure as representative of their skin tone. Future research should further investigate why certain women of color could not find representation within the SCD palette despite its greater range of tones. They may also assess how to make the SCD visual scale more representative for individuals who did not rate it to be representative and creating more realistic skin tone options.

Second, only women of color using skin bleaching products were included in this study. It is unknown how women who use these beautification products, and report doing so, could differ from women who chose not to use them. Research suggests that individuals who have never tried skin lightening products reported feeling more satisfied with their natural skin color (Rohimi et al., 2021). This is why we deliberately recruited women of color who reported using these products. However, it is unknown what other factors such as social class, exposure to commercials or product advertisements, or how income to afford these products affect their use.

Another limitation was the potential for inclusion of women who might have used bleaching products to lighten dark spots or under the eye discoloration – meaning spot treatments as opposed to entire face/body bleaching. If this was the case, this would help explain the occasional bleaching behavior reported by some women or women who reported wanting a darker skin tone. Therefore, to avoid any confusion about the skin bleaching behavior, more

description about the behavior and more questions regarding the specifics of spot use versus full facial use (e.g., “Are you using the bleaching products for correcting discoloration or dark circles?”) would ensure more consistency in reporting. This also highlights the need to consider each racial/ethnic group differently due to their varied socio-cultural influences. For example, Latinx people prefer tanner skin, whereas Indian women are more likely to use skin bleaching products compared to African American women (Harper & Choma, 2019; Sacksner et al., 2022). Future studies may want to look at each racial/ethnic group differently to understand what may be affecting each group uniquely.

In addition, previous literature (James et al., 2016) has found that childhood abuse, depression, and trauma were associated with skin bleaching. Thus, not including mental health predictors to understand skin bleaching behaviors in women of color was a limitation (James et al., 2016). Examining these mental health correlates may help explain the skin bleaching behaviors in women of color. It might be worth exploring the role of mental health associations and skin bleaching for people of color. For example, as a body image metric—is dissatisfaction with skin color associated with other body image concerns—such as physical shape or weight, or is skin tone dissatisfaction a unique, stand-alone concern for many women of color? Repetitive compulsive behaviors outlined for Body Dysmorphic Disorder (BDD), according to the DSM–5 TR (APA, 2022), include tanning behavior as a way to improve one’s skin color to look more acceptable and alleviate appearance-related anxiety (Bjornsson et al., 2022). Hence, skin bleaching - another form of dangerous skin color modification behavior - could also be considered a repetitive compulsive behavior for women of color with BDD, helping make the BDD diagnosis more culturally inclusive. Further, skin tone dissatisfaction may be associated with other common mental health concerns in women of color, much like how anxiety and

depression or other body image concerns are associated with eating disorders. Parker and colleagues (2022) found that the internalization of White beauty standard has been related to disordered eating behaviors in Black women. Research suggests that factors such as one's level of acculturation and ethnic identity may affect their body image concerns (Chen et al., 2022; Cheng, 2022; Parker et al., 2022; Sacksner et al., 2022).

Yet another limitation was that the participants all had access to the internet in order to take this survey, which makes generalization difficult to individuals from low SES or rural populations with no internet access. Historically, the ethnic and racial minoritized groups residing in rural America, relative to urban/suburban areas, have more history of enslavement and racial subjugation (Lichter, 2012). Consequently, a rural population may have different discriminatory experiences than individuals of color in more populated areas (Statti & Torres, 2020). Also, due to historical and systematic discrimination, racial and ethnic minoritized groups tend to be at a lower SES in the U.S. (Reeves et al., 2016; U.S. Census Bureau, 2014). Thus, it is unclear how access to internet—and hence participation in this survey—may have impacted our results on the relationship between skin color dissatisfaction, racism, colorism, and use of bleaching beautification products. Future studies should consider using participants from all groups that can and cannot access internet by collecting a community-based sample, using advertisements in newspapers and radio, to enhance generalization to a broader population.

### **Conclusion and Future Clinical Implications**

In sum, the results of the present study demonstrate that Falconer and Neville's (2000) Skin Color Satisfaction Scale (SCSS) is the best predictor of the social constructs of perceived racism and colorism, as well as frequency of skin bleaching, as compared to the Skin Tone Questionnaire (STQ; Swami et al., 2013) and Skin Color Discrepancy scale (created in this

study). SCSS appears to be the best skin color dissatisfaction measure to use in future work, particularly when conducting research focused on the social consequences of being a person of color in a White ideal society. However, keeping with the past body image research (Gardner & Brown, 2010; Williamson et al., 1993), if a skin tone discrepancy scale is to be used, the newly developed SCD may serve as a useful metric of distance from natural to ideal skin tone when studying individuals who wish to lighten or darken their skin color.

The clinical and practical implications for a validated and accessible skin color dissatisfaction scale are of utmost importance, given the deleterious consequences of this form of body image concern. Skin color dissatisfaction has affected individual's psychological health in multiple capacities (Bjornsson et al., 2022; Ching & Wu, 2022; Parker et al., 2022), making it crucial to consider when working with clients of color in assessment of risk, creation of treatment plan, or conceptualizing their concerns. For example, skin color dissatisfaction in the form of self-objectification, perhaps due to media exposure and social class, has been linked to lower cognitive performance in Chinese adolescent girls (Ching & Wu, 2022). In addition, Parker and colleagues (2022) found that lower skin color satisfaction in Black women was related to Binge Eating Disorder, which can lead to a multitude of health consequences (i.e., cardiovascular disease, diabetes, cancer, stroke). They speculated that internalization of White beauty standards, rather than pride with one's racial identity, was related to binge eating (Parker et al., 2022). Therefore, some of this newer research suggests that skin color dissatisfaction in women of color is associated with other negative consequences, yet this form of research is in its infancy. More research is needed to better understand how these body image constructs affect people of color. Having valid scales which can assess skin color dissatisfaction has utility for clinical practice for a variety of co-morbidities like disordered eating. When considering a more

culturally inclusive diagnostic system for people of color, it can be vital to assess for skin bleaching behaviors to inform appropriate treatment and/or prevention. Moreover, the DSM-5 TR's (APA, 2022) criteria for Body Dysmorphic Disorder (BDD) needs to mention the hazardous practice of skin bleaching behaviors in addition to their current example of tanning behavior as a compulsive practice of skin augmentation (Bjornsson et al., 2022; Phillips et al., 2006). This would make this diagnosis more inclusive of people of all skin tones.

Having validated scales for skin color dissatisfaction are critical for scientists to use in future explorations within this field. Access to these scales is also pertinent for public health endeavors aimed at reducing harm from skin bleaching products. Moreover, understanding the social forces that can contribute to hazardous behaviors can lead to more community focused interventions or grassroots efforts aimed at social change, such as encouraging more women of color to go into leadership, politics, science, or even production, directing, and casting of more inclusive actors in the film industry.

In conclusion, the body image literature is well versed in how skin color dissatisfaction can affect the hazardous practice of tanning behavior in White individuals (Bjornsson et al., 2022), whereas research aimed at understanding how skin color issues affect women of color has largely been ignored. This validity research examined what is the best way to measure skin color dissatisfaction in women of color as it pertains to the discriminatory social forces of colorism and racism, as well as how it is linked to the toxic practice of skin bleaching. We hope that this is the mere start of scientific research, in addition to social activism, aimed at helping us better understand the important factors associated of skin color dissatisfaction in women of color and how to best intervene and help them.

## References

- American Psychiatric Association [APA]. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). <https://doi.org/10.1176/appi.books.9780890425787>
- American Psychological Association. (2017). *Ethical principles of psychologists and code of conduct* (2002, amended effective June 1, 2010, and January 1, 2017).  
<http://www.apa.org/ethics/code/index.html>
- An, S., Kim, K., Moon, S., Ko, K.-P., Kim, I., Lee, J. E., & Park, S. K. (2021). Indoor tanning and the risk of overall and early-onset melanoma and non-melanoma skin cancer: Systematic review and meta-analysis. *Cancers*, *13*(23), 5940.  
<https://doi.org/10.3390/cancers13235940>
- Bhagwat, R. (2012). *The relationship of skin tone to physical and mental health outcomes in South Asian Americans* [Unpublished doctoral dissertation]. The State University of New Jersey.
- Bjornsson, A. S., Didie, E. R., & Phillips, K. A. (2022). Body dysmorphic disorder. *Dialogues in Clinical Neuroscience*. *12*(2), 221-232.  
<https://doi.org/10.31887/DCNS.2010.12.2/abjornsson>
- Bond, S., & Cash, T. F. (1992). Black Beauty: Skin color and body images among African-American college women. *Journal of Applied Social Psychology*, *22*(11), 874-888.  
<https://doi.org/10.1111/j.1559-1816.1992.tb00930.x>
- Burns, K. (2021). *Exploring the Effects of Colorism on Relationship Quality* [Unpublished doctoral dissertation]. University of Kentucky. <https://doi.org/10.13023/etd.2021.092>
- Cash, T. F. (2004). Body image: Past, present, and future. *Body Image*, *1*(1), 1-5.  
[https://doi.org/10.1016/S1740-1445\(03\)00011-1](https://doi.org/10.1016/S1740-1445(03)00011-1)

- Castle, K., Conner, K., Kaukeinen, K., & Tu, X. (2011). Perceived racism, discrimination, and acculturation in suicidal ideation and suicide attempts among Black young adults. *Suicide and Life-Threatening Behavior*, 41(3), 342-351. <https://doi.org/10.1111/j.1943-278X.2011.00033.x>
- Chao, R. C. L., Longo, J., Wang, C., Dasgupta, D., & Fear, J. (2014). Perceived racism as moderator between self-esteem/shyness and psychological distress among African Americans. *Journal of Counseling and Development*, 92(3), 259-269. <https://doi.org/10.1002/j.1556-6676.2014.00154.x>
- Chen, H. Y., Jablonski, N., Chick, G., & Yarnal, C. (2022). Situating colorism in intercultural contexts: The multifaceted process of acculturation in shaping attitudes towards skin color. *International Journal of Intercultural Relations*, 90, 142-154. <https://doi.org/10.1016/j.ijintrel.2022.08.001>
- Cheng, H. L. (2022). Body shame among Asian American college women: The roles of sexual objectification, internalized racism, and ethnic identity strength. *Counselling Psychology Quarterly*, 36 (1) 112-133. <https://doi.org/10.1080/09515070.2022.2065664>
- Ching, B. H. H., & Wu, H. X. (2022). Compliments on skin tone hamper cognitive performance of Chinese adolescent girls with stronger appearance contingent self-worth. *Current Psychology*, 1-15. <https://doi.org/10.1007/s12144-022-03061-7>
- Choma, B. L., & Prusaczyk, E. (2018). The effects of system justifying beliefs on skin-tone surveillance, skin-color dissatisfaction, and skin-bleaching behavior. *Psychology of Women Quarterly*, 42(2), 162-177. <https://doi.org/10.1177/036168431774784>

- Chou, T., Asnaani, A., & Hofmann, S. G. (2012). Perception of racial discrimination and psychopathology across three US ethnic minority groups. *Cultural Diversity and Ethnic Minority Psychology, 18*(1), 74. <https://doi.org/10.1037/a0025432>
- Comas-Diaz, L., & Greene, B. (Eds.). (2013). *Psychological health of women of color: Intersections, challenges, and opportunities*. ABC-CLIO, LLC.
- Egbeyemi, A. (2019). Shedding light on colorism: How the colonial fabrication of colorism impacts the lives of African American women. *Journal of Integrative Research and Reflection, 2*(2), 14-25. <https://doi.org/10.15353/jirr.v2.1574>
- Falconer, J. W., & Neville, H. A. (2000). African American college women's body image: An examination of body mass, African self-consciousness, and skin color satisfaction. *Psychology of Women Quarterly, 24*(3), 236-243. <https://doi.org/10.1111/j.1471-6402.2000.tb00205.x>
- Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*(2), 173-206. <https://doi.org/10.1111/j.1471-6402.1997.tb00108.x>
- Friedman, B., English III, J. C., & Ferris, L. K. (2015). Indoor tanning, skin cancer and the young female patient: A review of the literature. *Journal of Pediatric and Adolescent Gynecology, 28*(4), 275-283. <https://doi.org/10.1016/j.jpag.2014.07.015>
- Gardner, R. M., & Brown, D. L. (2010). Body image assessment: A review of figural drawing scales. *Personality and Individual Differences, 48*(2), 107-111. <https://doi.org/10.1016/j.paid.2009.08.017>
- Harper, K., & Choma, B. L. (2019). Internalised White ideal, skin tone surveillance, and hair surveillance predict skin and hair dissatisfaction and skin bleaching among African



- American and Indian women. *Sex Roles*, 80(11), 735-744.  
<https://doi.org/10.1007/s11199-018-0966-9>
- Harvey, R. D., Tennial, R. E., & Hudson Banks, K. (2017). The development and validation of a colorism scale. *Journal of Black Psychology*, 43(7), 740-764.  
<https://doi.org/10.1177/0095798417690054>
- Hunter, M. (2007). The persistent problem of colorism: Skin tone, status, and inequality. *Sociology Compass*, 1(1), 237-254. <https://doi.org/10.1111/j.1751-9020.2007.00006.x>
- James, C., Seixas, A. A., Harrison, A., Jean-Louis, G., Butler, M., Zizi, F., & Samuels, A. (2016). Childhood physical and sexual abuse in Caribbean young adults and its association with depression, post-traumatic stress, and skin bleaching. *Journal of Depression and Anxiety*, 5(1), 214. <https://doi.org/10.4172/2167-1044.1000214>
- Keith, V. M., Lincoln, K. D., Taylor, R. J., & Jackson, J. S. (2010). Discriminatory experiences and depressive symptoms among African American women: Do skin tone and mastery matter?. *Sex Roles*, 62(1), 48-59. <https://doi.10.1007/s11199-009-9706-5>
- Keith, V. M., & Monroe, C. R. (2016). Histories of colorism and implications for education. *Theory Into Practice*, 55(1), 4-10. <https://doi.org/10.1080/00405841.2016.1116847>
- Khasru, I. (2022). Cover girls: South Asian American women's vulnerability to body dissatisfaction, arising from cultural differences and Western appearance-based media. *The Columbia Journal of Asia*, 1(1), 49–61. <https://doi.org/10.52214/cja.v1i1.9168>
- Lichter, D. T. (2012). Immigration and the new racial diversity in rural America. *Rural Sociology*, 77(1), 3-35. <https://doi.org/10.1111/j.1549-0831.2012.00070.x>

- Lopez, I., Gonzalez, A., & Ho, A. (2012). Skin color. T. Cash (Managing Editor) In *Encyclopedia of Body Image and Human Appearance*. Elsevier.  
<https://doi.org/10.1016/b978-0-12-384925-0.00116-4>
- Mahe, A., Ly, F., Aymard, G., & Dangou, J. M. (2003). Skin diseases associated with the cosmetic use of bleaching products in women from Dakar, Senegal. *British Journal of Dermatology*, 148(3), 493–500. <https://doi.org/10.1046/j.1365-2133.2003.05161.x>
- McCleary-Gaddy, A. T., & James, D. (2022). Skin tone, life satisfaction, and psychological distress among African Americans: The mediating effect of stigma consciousness. *Journal of Health Psychology*, 27(2), 422-431. <https://doi:10.1177/1359105320954251>
- National Institute of Mental Health. (2021). Mental Illness.  
<https://www.nimh.nih.gov/health/statistics/mental-illness.shtml>
- Norwood, K. J. (2015). If you is White, you's alright: Stories about colorism in America. *Washington University Global Studies Law Review*, 14, 585.  
[https://openscholarship.wustl.edu/law\\_globalstudies/vol14/iss4/8](https://openscholarship.wustl.edu/law_globalstudies/vol14/iss4/8)
- Nyborg, V. M., & Curry, J. F. (2003). The impact of perceived racism: Psychological symptoms among African American boys. *Journal of Clinical Child and Adolescent Psychology*, 32(2), 258-266. [https://doi.org/10.1207/S15374424JCCP3202\\_11](https://doi.org/10.1207/S15374424JCCP3202_11)
- O’Leary, R. E., Diehl, J., & Levins, P. C. (2014). Update on tanning: More risks, fewer benefits. *Journal of the American Academy of Dermatology*, 70(3), 562-568.  
<https://doi.org/10.1016/j.jaad.2013.11.004>
- Parker, J. E., Enders, C. K., Mujahid, M. S., Laraia, B. A., Epel, E. S., & Tomiyama, A. J. (2022). Prospective relationships between skin color satisfaction, body satisfaction, and

- binge eating in Black girls. *Body Image*, 41, 342-353.  
<https://doi.org/10.1016/j.bodyim.2022.04.004>
- Pascoe, E. A., Smart Richman, L. (2009). Perceived discrimination and health: A meta-analytic review. *Psychological Bulletin*, 135(4), 531-554. <https://doi:10.1037/a0016059>
- Peltzer, K., Pengpid, S., & James, C. (2016). The globalization of whitening: Prevalence of skin lighteners (or bleachers) use and its social correlates among university students in 26 countries. *International Journal of Dermatology*, 55, 165–172.  
<https://doi.org/10.1111/ijd.12860>.
- Phillips, K. A., Conroy, M., Dufresne, R. G., Menard, W., Didie, E. R., Hunter-Yates, J., Fay, C., & Pagano, M. (2006). Tanning in Body Dysmorphic Disorder. *Psychiatric Quarterly*, 77(2), 129–138. <https://doi-org.proxy006.nclive.org/10.1007/s11126-006-9002-2>
- Prichard, I., Kneebone, A., Hutchinson, A. D., & Wilson, C. (2014). The relationship between skin tone dissatisfaction and sun tanning behaviour. *Australian Journal of Psychology*, 66(3), 168-174. <https://doi:10.1111/ajpy.12039>
- Rahman, M. (2020). *The causes, contributors, and consequences of colorism among various cultures* [Honors college thesis]. Wayne State University.  
<https://digitalcommons.wayne.edu/honorsthesis/71>
- Reeves, R., Rodrigue, E., & Kneebone, E. (2016). *Five evils: Multidimensional poverty and race in America*. Retrieved from [https://www.brookings.edu/wp-content/uploads/2016/06/reeveskneebonerodrigue\\_multidimensionalpoverty\\_fullpaper.pdf](https://www.brookings.edu/wp-content/uploads/2016/06/reeveskneebonerodrigue_multidimensionalpoverty_fullpaper.pdf)
- Rohimi, A. A., Olagoke, S. M., & Izza Wan Husin, W. N. (2021). White beauty: The moderating role of social media addiction on social comparison and skin tone satisfaction. *Asian*

- Journal of Advanced Research and Reports*, 15, 31-43.  
<https://doi.org/10.9734/ajarr/2021/v15i1030431>
- Sacksner, J. P., Kaundinya, T., Daftary, K., Jackson, K. L., & Kundu, R. V. (2022). Skin tone preferences and their influence on skin care behaviors. *Archives of Dermatological Research*, 314(10), 961-966. <https://doi.org/10.1007/s00403-021-02320-0>
- Sahay, S., & Piran, N. (1997). Skin-color preferences and body satisfaction among South Asian-Canadian and European-Canadian female university students. *The Journal of Social Psychology*, 137, 161-171. <https://doi.org/10.1080/00224549709595427>
- Science Direct. (2023). *Body Image: An International Journal of Research*.  
<https://www.sciencedirect.com/journal/body-image>
- Secord, P. F., & Jourard, S. M. (1953). The appraisal of body-cathexis: Body-cathexis and the self. *Journal of Consulting Psychology*, 17(5), 343. <https://doi.org/10.1037/h0060689>
- Sotiriou, E. G. (2021). *Cultural components of body dissatisfaction in ethnically diverse women: Moving beyond weight focused body image* [Unpublished doctoral dissertation]. The University of Texas at Austin. <http://dx.doi.org/10.26153/tsw/32932>
- Sheeran, P., Goldstein, A. O., Abraham, C., Eaker, K., Wright, C. E., Villegas, M. E., Jones, K., Avishai, A., Miles, E., Gates, K. M., & Noar, S. M. (2020). Reducing exposure to ultraviolet radiation from the sun and indoor tanning: A meta-analysis. *Health Psychology*, 39(7), 600–616. <https://doi.org/10.1037/hea0000863>
- Statti, A., & Torres, K. (2020). The forgotten minority: Exploring deficiencies in access to education and technology in rural America. *Peabody Journal of Education*, 95(2), 173-182. <https://doi.org/10.1080/0161956X.2020.1745608>

- Swami, V., Henry, A., Peacock, N., Roberts-Dunn, A., & Porter, A. (2013). "Mirror, mirror...."  
A preliminary investigation of skin tone dissatisfaction and its impact among British  
adults. *Cultural Diversity and Ethnic Minority Psychology, 19*(4), 468–476.  
<https://doi.org/10.1037/a0032904>
- Tafari-Ama, I. (2016). Historical sociology of beauty practices: Internalized racism, skin  
bleaching and hair straightening. *Ideaz, 14*(1-19,150).  
<https://login.proxy006.nclive.org/login?url=https://www.proquest.com/docview/1853613623?accountid=8337>
- U.S. Census Bureau. (2014). U.S. poverty report. Retrieved from  
<https://www.census.gov/population/projections/data/national/2014.html>
- Ullrich-French, S., & Cox, A. E. (2022). A negative body image contextualization of the self-  
compassion scale. *Body Image, 42*, 447-455.  
<https://doi.org/10.1016/j.bodyim.2022.07.016>
- Vartanian, L. R. (2012). Self-discrepancy theory and body image. *Encyclopedia of Body Image  
and Human Appearance, 2*(1), 711-717. <https://doi:10.1016/B978-0-12-384925-0.00112-1>
- Wilder, J. (2017). Colorism and favoritism: An examination of skin tone bias and discrimination  
in the United States. *Race in America: How a pseudo-scientific concept shaped human  
interaction* (pp. 397-419). Praeger.
- Williamson, D. A., Gleaves, D. H., Watkins, P. C., & Schlundt, D. G. (1993). Validation of self-  
ideal body size discrepancy as a measure of body dissatisfaction. *Journal of  
Psychopathology and Behavioral Assessment, 15*(1), 57-68.  
<https://doi.org/10.1007/bf00964324>

Williams, D., Yu, Y., Jackson, J., & Anderson, N. (1997). Racial differences in physical and mental health. *Journal of Health Psychology, 2*(3), 335-351.

<https://doi.org/10.1177/135910539700200305>

Zhang, M., Qureshi, A. A., Geller, A. C., Frazier, L., Hunter, D. J., & Han, J. (2012). Use of tanning beds and incidence of skin cancer. *Journal of Clinical Oncology, 30*(14), 1588.

<https://doi:10.1200/JCO.2011.39.3652>

**Table 1***Descriptive Statistics and Correlations for Study Variables*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Skin Tone Questionnaire (STQ)	14.3	2.26	—					
2. Skin Color Discrepancy (SCD)	40.2	4.37	.67**	—				
3. Skin Color Satisfaction Scale (SCSS)	16.6	6.38	.49**	.45**	—			
4. Racism (DAS-DQ)	22.2	9.16	.085	.15*	.16*	—		
5. Colorism (ICS)	51.0	13.0	.37**	.32**	.38**	.24**	—	
6. Frequency of Bleaching (FBHS)	4.0	1.42	.22**	.28**	.26**	-.02	.17*	—

*n* = 346; \**p* < .05. \*\**p* < .001.

**Table 2***Regressions of Associations Between Skin Tone Dissatisfaction Measures and Related**Constructs*

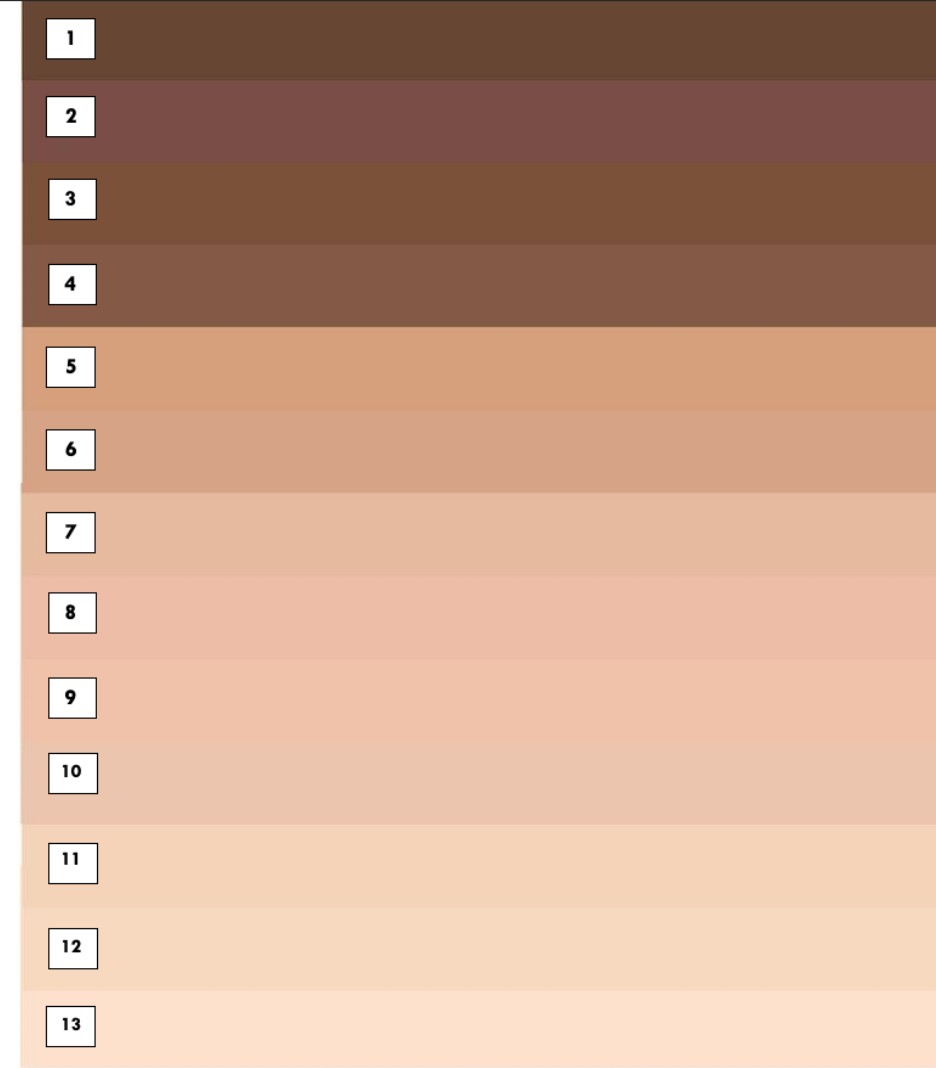
	<b>Variable</b>	<b><math>\beta</math></b>	<b>SE</b>	<b><i>t</i></b>	<b><i>p</i></b>	<b>95% CI</b>	<b>R<sup>2</sup></b>
	STQ	-.072	.301	-.97	.34	-.882 - .301	
<b>Racism</b>	SCD	.139	.152	1.92	.056	-.007 - .591	.035
<b>(DAS-DQ)</b>	SCSS	.130	.089	2.10	.036	.012 - .362	
	STQ	.193	.391	2.83	.005	.336 - 1.88	
<b>Colorism</b>	SCD	.081	.198	1.22	.223	-.148 - .630	.188
<b>(ICS)</b>	SCSS	.245	.116	4.32	<.001	.272 - .726	
	STQ	.011	.045	.155	.877	-.081 - .095	
<b>Bleaching</b>	SCD	.200	.023	2.85	.005	.020 - .109	.100
<b>(FBHS)</b>	SCSS	.162	.013	2.71	.007	.010 - .062	

*Note. n = 346*



## Appendix A

### Swami and colleague's Skin Tone Questionnaire (STQ)



**1**

**2**

**3**

**4**

**5**

**6**

**7**

**8**

**9**

**10**

**11**

**12**

**13**

**Please answer the following questions by referring to the skin tone chart above and writing a suitable number (1-13 based on the images above) in the space after each question.**

1. Which image most closely matches your current skin tone? \_\_\_\_\_
2. Which is the skin tone that you would most like to possess? \_\_\_\_\_
3. Which is the lightest skin tone that you consider physically attractive? \_\_\_\_\_
4. Which is the darkest skin tone that you consider physically attractive? \_\_\_\_\_
5. Which is the skin tone that you think most people in society think is ideal? \_\_\_\_\_

## Appendix B

### Skin Color Satisfaction Scale (SCSS- Adapted)

- 1 = extremely satisfied/strongly agree
- 2 = mostly agree
- 3 = agree
- 4 = slightly agree
- 5 = neutral
- 6 = slightly disagree
- 7 = disagree
- 8 = mostly disagree
- 9 = extremely dissatisfied/strongly disagree

- a) How satisfied are you with the shade of your own skin color?
- b) Compared to the complexion (skin color) of members of my family, I am satisfied with my skin color.
- c) I wish my skin was lighter.
- d) Compared to the complexion (skin color) of others in my ethnic group, I am satisfied with my skin color.

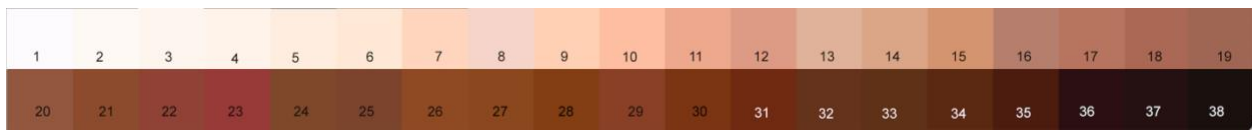
Note. The revision made to the original SCSS was changing “other African Americans” to “others in my ethnic group” for item (b). Skin color dissatisfaction scores were calculated by reverse coding item (c). The SCSS Likert was reversed so higher scores on these items indicated skin tone dissatisfaction. The scores for all the four items (a), (b), (c) and (d) were summed.

## Appendix C

### Skin Color Discrepancy (SCD)

**Discrepancy Score:** Based on the skin color bar below, please indicate your:

1. Natural skin color: \_\_\_\_\_
2. Ideal skin color: \_\_\_\_\_



Note. If these scores are the same, that individual had a SCD of zero. If they were discrepant, the natural skin tone was subtracted from the ideal skin tone to indicate the number of units of discrepancy in their desire to have a lighter tone. Larger scores reflected their desire of lighter skin tone more.

## Appendix D

### IRB Approval Email

**From:** IRB Administration

**Date:** 11/08/2021

**RE:** Notice of Exempt Research Determination

**Agrants #:**

**Grant Title:**

**STUDY #:** 22-0094

**STUDY TITLE:** Development of a Novel Measure of Skin Color Discrepancy: Examining Associations with Perceived Racism, Colorism, and Skin Bleaching in Women of Color

**Exemption Category:** 2.Survey, interview, public observation

**NOTE:** This project, like all exempt and non-exempt research with human subjects at Appalachian State University, is subject to other requirements, laws, regulations, policies, and guidelines of Appalachian State University and the state of North Carolina. As of August 26, 2021 and until further notice, this includes additional requirements for protections against COVID-19. Please go [here](#) for the additional requirements that you must fulfill.

This study involves no more than minimal risks and meets the exemption category or categories cited above. In accordance with the 2018 federal regulations regarding research with human subjects [45 CFR 46] and University policy and procedures, the research activities described in the study materials are exempt from IRB review.

## Appendix E

### Demographics Questionnaire

**Age:** What is your age? (years): \_\_\_\_\_

**Racial/Ethnic Identification:** What is your ethnicity/racial identity? \_\_\_\_\_

**Gender:** What is your gender?

- \_\_\_\_\_ Female
- \_\_\_\_\_ Male
- \_\_\_\_\_ Non-binary
- \_\_\_\_\_ Trans-Female
- \_\_\_\_\_ Trans-Male

**Sexual Orientation:** Please choose a category that best describes your sexual orientation:

- \_\_\_\_\_ Bisexual
- \_\_\_\_\_ Gay/Lesbian
- \_\_\_\_\_ Pansexual
- \_\_\_\_\_ Queer
- \_\_\_\_\_ Straight/Heterosexual
- \_\_\_\_\_ Other (\_\_\_\_\_)

**Highest Level of Education Achieved:** Please choose a category that best describes your highest level of education achieved:

- \_\_\_\_\_ Some Highschool
- \_\_\_\_\_ Highschool graduate
- \_\_\_\_\_ Associates degree or trade school
- \_\_\_\_\_ Bachelor's degree
- \_\_\_\_\_ Master's degree
- \_\_\_\_\_ Specialist's degree
- \_\_\_\_\_ Doctoral degree

## Appendix F

### Perceived Racism-Detroit Area Study Discrimination Questionnaire (DAS-DQ)

In your day-to-day life, how often have any of the following things happened to you?

Would you say almost every day, at least once a week, a few times a month, a few times a year, less than once a year?

1	2	3	4	5	6
never	less than once a year	a few times a year	a few times a month	at least once a week	almost every day

1. You are treated with less courtesy than other people.
2. You are treated with less respect than other people.
3. You receive poorer service than other people at restaurants and stores.
4. People act as if they think you are not smart.
5. People act as if they are afraid of you.
6. People act as if they think you are dishonest.
7. People act as if you are not as good as they are.
8. You are called names or insulted.
9. You are threatened or harassed.

Note. Compared to the original scale, the Likert scale has been flipped in this study to indicate 1 = “never” to 6 = “almost every day,” so that higher scores on the measure indicates more perceived racism. The highest perceived racism score is 56, with higher scores indicating more frequent perceived racism.

## Appendix G

### In-Group Colorism Scale (ICS)

**Instructions:** This questionnaire includes statements regarding your personal views about skin color. Use the scale to respond to each statement based upon how true it is for you. In the column next to each item, click in the category that best describes your response to each statement.

1	2	3	4	5
Strongly Disagree	Disagree	Neither	Agree	Strongly Agree

\_\_\_\_\_ SC 1. My skin tone is an important part of my self-concept

\_\_\_\_\_ SC 2. My skin tone is an important component of who I am

\_\_\_\_\_ SC 3. My skin tone affects my self-esteem

\_\_\_\_\_ SC 4. My skin tone is a big part of my identity

\_\_\_\_\_ IF 5. You can tell a lot about a person by their skin tone

\_\_\_\_\_ IF 6. Blacks with lighter skin tone tend to be more pleasant people to deal with

\_\_\_\_\_ IF 7. Dark skinned people are more difficult to work with

\_\_\_\_\_ IF 8. There are real differences between light skin and dark-skinned people

\_\_\_\_\_ AF 9. I'm usually uncomfortable being around people who are a certain skin tone

\_\_\_\_\_ AF 10. Most of my friends tend to be the same skin tone

\_\_\_\_\_ AF 11. I usually choose who I'm going to be friends with by their skin tone

\_\_\_\_\_ AF 12. The majority of my current friends are the same skin tone as me

\_\_\_\_\_ AT 13. I'm primarily attracted to people of a certain skin tone

\_\_\_\_\_ AT 14. I prefer light skin over dark complexion skin when choosing romantic interests

\_\_\_\_\_ AT 15. I prefer a romantic partner who has the same skin tone as me

\_\_\_\_\_ AT 16. Lighter skin tone makes others more attractive

- \_\_\_\_\_ UM 17. Even if you work really hard, your skin tone matters most
- \_\_\_\_\_ UM 18. Skin tone plays a big part in determining how far you can make it
- \_\_\_\_\_ UM 19. Skin tone affects how much money you can make
- \_\_\_\_\_ UM 20. If you want to get ahead, you have to be the right skin tone

Note. The subscales listed are as follows: Self-Concept (SC), Impression Formation (IF), Affiliation (AF), Attraction (AT), and Upward Mobility (UM). Higher scores on this scale indicate a high endorsement of subscales and a higher endorsement of the colorism ideology. The highest perceived colorism score is 100.



## Appendix H

### Frequency of Bleaching History Scale (FBHS)

Use the Likert scale to answer the question below:

**0**      **1**      **2**      **3**      **4**      **5**      **6**  
never   once a year   less than once a year   a few times a year   a few times a month   at least once a week   almost every day

In the past year, how often in the past year have you used any skin beautification/lightening products such as:

- Secret Key, Snow White Cream
- Professional Bleaching Lotion
- Northern Crown Cosmetics Intimate Whitening Cream
- QRxLabs Skin Whitening Cream
- Nivea Extra Whitening Cell Repair Body Lotion SPF 15
- Nivea Whitening Even Tone UV Protect Lotion
- Fair and Lovely Advanced Multi Vitamin Face Cream
- Kojie San Whitening Face Cream
- Clinicians Complex 6% Skin Bleaching Cream
- Porcelana Skin Lightening Cream
- Kojic Acid Skin Lightening Cream

## **Vita**

Shraddha Selani was born in India and lived with her parents Mayur Selani and Jayshree Selani in Mumbai, Maharashtra, until the age of 18. She moved to the U.S. to attend Ohio University (OU) in 2016 and obtained a B.A. in Psychology with Honors and minor in Biological Sciences in May 2020. Upon her graduation, Shraddha enrolled in Appalachian State University's Clinical Psychology Doctoral Program (Psy.D.) in Fall 2020. Her faculty mentor is Denise Martz, Ph.D.