

THE RELATIONSHIP BETWEEN SKIN TONE AND PSYCHOLOGICAL ADJUSTMENT:
EXPLORING THE ROLE OF RACIAL SOCIALIZATION

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ABSTRACT

Ashly Louise Gaskin: The Relationship between Skin Tone and Psychological Adjustment:
Exploring the Role of Racial Socialization
(Under the direction of Enrique Neblett, Jr.)

Despite the major role that skin tone plays in the lives of African Americans (e.g., Thompson & Keith, 2001), a limited body of work has examined the relationship between skin tone and psychological adjustment. Given the developmental significance of skin tone during the transition to adulthood and the dearth of studies examining the mechanisms through which skin tone is related to psychological adjustment, this study examined: 1) the nature of the association between skin tone and psychological adjustment (depressive symptoms, self-esteem, and psychological well-being); 2) the moderating; and 3) mediating roles of racial and skin tone socialization in the relationship between skin tone and adjustment; and 4) the moderating influence of gender on the indirect link between skin tone and adjustment through racial and skin tone socialization. One hundred ninety-two Black adults (18 – 25 years old; 54.2% female) recruited from a large southeastern university completed measures of self-reported skin tone, racial and skin tone socialization, and psychological adjustment. Results revealed a quadratic association between skin tone and psychological well-being, which was moderated by positive skin tone socialization messages. Negative skin tone messages exacerbated the association between skin tone and depressive symptoms, but findings across adjustment outcomes were inconsistent. Contrary to expectations, racial and skin tone socialization did not mediate the association between racial identity and skin tone. Findings are situated in the broader literature, and research and clinical implications of the findings are discussed.

To Brian, Daddy, Mama, Veronica, Michael, Jason, Courtney, and Jaden

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LIST OF ABBREVIATIONS

APPR	Skin Tone Appreciation Messages
BIAS	Skin Tone Bias Messages
CAD	Cultural Alertness to Discrimination
CAL	Cultural Appreciation of Legacy
CCA	Cultural Coping with Antagonism
CES-D	Center for Epidemiological Studies Depression Scale
CPR	Cultural Pride Reinforcement
DV	Dependent Variable
EM	Cultural Endorsement of Mainstream
HBC	Historically Black College
IPPA	Inventory of Parent and Peer Attachment
PCA	Principal Component Analysis
PWB	Psychological Well-Being
PWI	Predominantly White Institution
SD	Standard Deviation
SPSS	Statistical Package for the Social Sciences
TERS	Teenager Experience of Racial Socialization

INTRODUCTION

Skin tone – the lightness or darkness of one’s skin complexion – plays a major role in the lives of African Americans (Brown, Ward, Lightbourn, & Jackson, 1999; Hughes & Hertel, 1990); yet, the relationship between skin tone and psychological adjustment has been severely understudied. The state of this literature is surprising given the evidence that skin tone and satisfaction with skin tone are linked with educational attainment and occupational status (Keith & Herring, 1991), chances for romantic partners and marriage (Bond & Cash, 1992; Hughes & Hertel, 1990) and numerous indices of psychological adjustment such as self-esteem (e.g., Coard, Breland, & Raskin, 2001; Falconer & Neville, 2000). Furthermore, the continued heightened awareness and assessment of one’s body and physical attractiveness (Fegley, Spencer, Goss, Harpalani & Charles, 2008; Falconer & Neville, 2000) and the increased occurrence of racial discrimination during adolescence and entry into adulthood (Sellers, Copeland-Linder, Martin, & Lewis, 2006) highlight the developmental significance of examining the association between skin tone and psychological adjustment during this important developmental transition.

Several shortcomings of existing literature limit our understanding of the relationship between skin tone and psychological adjustment. One major gap in this research area is a focus on underlying mechanisms that may explain individual differences in the association between skin tone and psychosocial outcomes. Given the role that the Black family plays in transmitting racial attitudes and expectations to Black youth (García Coll et al., 1996), family processes may be important to consider in understanding individual differences in the association between skin

tone and psychological adjustment. One particular family process – *racial socialization* – or the process of learning about the significance and meaning of race and how to handle inter- and intra-racial interactions (Stevenson & Arrington, 2009) – may both moderate and mediate the association between skin tone and psychological adjustment. For example, the association between darker skin tone and self-esteem may be positive for individuals who receive more messages emphasizing pride in their racial background (moderation). Alternatively, parents may tailor the messages they impart to youth about race, racial discrimination, skin tone, and colorism (i.e., discrimination based on skin tone; Hughes et al., 2006) based on their offspring's skin tone, in turn, providing them with coping skills to psychologically negotiate racial-stress (mediation). Such a focus on the family could play an important role in the enhancement of traditional psychological interventions (e.g. individual and family therapy) to address the psychological needs of African American emerging adults who experience skin tone discrimination.

Another limitation that exists within the skin tone literature is the lack of focus on Black males despite evidence that they are impacted by skin tone (e.g., Coard et al., 2001; Ransford, 1970). The preponderance of literature on skin tone effects examines psychological outcomes for females (Buchanan, Fischer, Tokar, & Yoder, 2008; Falconer & Neville, 2000; Mucherah & Frazier, 2013; Young-Hyman, Schlundt, Herman-Wenderoth, & Bozylinksi, 2003). Though skin tone is more strongly linked with Black women's perceived attractiveness than that of Black men (Hill, 2002), skin tone is still relevant to the psychological well-being of males. One possibility is that gender may moderate the mediational processes underlying the association between skin tone and psychological well-being. For example, the association between light skin tone and racial socialization messages emphasizing racial inequalities may be positive for males, but not females.

Dissertation Overview

In light of the dearth of research on the relationship between skin tone and psychological adjustment among African American emerging adults, as well as the lack of literature examining mechanisms that explain this relationship, this study has four aims. Utilizing the Developmental Psychopathology framework (Rutter & Sroufe, 2000) and the Integrative Model for the Study of the Development of Minority Youth (García Coll et al., 1996), this study will address the following aims: 1) to examine if skin tone is related to psychological outcomes in African American emerging adults; 2) to explore the moderating; and 3) mediating roles of racial socialization in the relationship between skin tone and psychological adjustment; and 4) to explore how gender may moderate the mediating role of racial socialization in the relationship between skin tone and psychological adjustment. In light of these aims, this dissertation will first elaborate on the frameworks guiding the study and then outline the historical significance of skin tone in the African American community. Next, literature will be reviewed showing evidence of a relationship between skin tone and psychological adjustment, and then, the role of racial socialization and gender will be examined as mechanisms explaining this relationship. The review will be followed by presentation of the proposed hypotheses, methodology, results, and then a discussion of how the findings fit into the broader extant literature.

Guiding Frameworks

Two primary frameworks guide this study: the Developmental Psychopathology (DP; Rutter & Sroufe, 2000) framework and the Integrative Model for the Study of the Development of Minority Youth (García Coll et al., 1996). The DP framework is an appropriate lens through which to examine the relationships of interest because of its focus on the dynamic interplay between individuals and their environments and the importance of considering developmental

points or transitions as contexts of risk and protective mechanisms. Specifically, the relationships between emerging adults' physical characteristics, parents' racial socialization messages, and emerging adults' well-being highlight the interplay between individual and environmental factors. Certain skin tones may initiate a set of protective or risk mechanisms in the form of evoking certain racial socialization messages from parents that serve to protect or leave youth vulnerable in the face of adversity (e.g., colorism). Additionally, the role of these risk and protective processes may be exacerbated in the context of emerging adulthood as individuals are encountering the world in a more autonomous manner and seeking out educational, vocational, residential, and other opportunities (Hurd, Varner, Caldwell, & Zimmerman, 2014). Furthermore, the focus on family processes as risk and protective mechanisms creates a potential point of clinical prevention and intervention for bolstering emerging adults' resilience.

The Integrative Model (García Coll et al., 1996) emphasizes the critical function that social status variables (e.g., race, gender, etc.) and family have in the developmental outcomes of ethnic minority youth. Skin tone is both a physical characteristic and social status variable influencing individuals' exposure to discrimination and other outcomes. Furthermore, skin tone works together with other social status variables such as gender (García Coll et al., 1996). García Coll and colleagues (1996) also posit that family processes (e.g., racial socialization) "interact with the [individual's] biological, constitutional, and psychological characteristics," (p. 1896) emphasizing the dynamic process posed by the DP framework. Additionally, García Coll and colleagues stress the key role that the family has in passing on racial attitudes and expectations for discrimination. Therefore, it is appropriate to consider the role of the family as a significant mechanism through which skin tone and psychological adjustment are associated.

Background: Historical Significance and Measurement of Skin Tone

Skin tone has a significant and historic role in the African American community with roots stemming back to slavery. During slavery, lighter skin was favored over darker skin because it signaled that a slave had White parentage – often as a result of coercive sexual relations between a slave master and Black female slave (Brown et al., 1998; Coard et al., 2001; Fegley et al., 2008; Keith & Herring, 1991) – and was therefore not “purely” Black. Moreover, lighter skin was more aesthetically pleasing to Whites due to it being viewed as a Eurocentric characteristic (Hughes & Hertel, 1990; Keith & Herring, 1991). This skin tone bias held by Whites, referred to as “colorism” (Robinson & Ward, 1995), resulted in more favorable treatment of lighter-skinned slaves such that they were bought at higher prices during slave trades, and they were often assigned less physically demanding labor in the slave master’s house in close confines with his family, while darker slaves were assigned to arduous fieldwork (Hughes & Hertel, 1990). Moreover, lighter-skinned Blacks were more likely to be free and receive inheritances (Hughes & Hertel, 1990) usually as a result of their fathers – who were often their former slave masters – granting freedom and leaving inheritances in their wills (Keith & Herring, 1991). Thus, lighter skin became associated with higher social status. It has also been argued that once freedom was eventually extended to all Blacks, lighter skinned Blacks had social advantages in navigating White society because of their exposure to European customs, culture, and language as a result of their closer association with Whites as compared to darker Blacks (Hughes & Hertel, 1990).

Over time, as Blacks witnessed the opportunities that light skin afforded and the penalties that dark skin accrued, colorism ideals began to permeate the Black community as well. Lighter skinned Blacks maintained higher social status by serving as gatekeepers to the privileges they

enjoyed. They maintained social and economic boundaries by partnering with and marrying other light skinned Blacks, in turn, effectively passing on their privilege to offspring who were likely to be light skinned as well. Additionally, many affluent Black organizations and social clubs (e.g., Black universities, Greek organizations), sometimes referred to as “blue vein societies,” denied membership to Blacks if they were not lighter than a “paper bag” or light enough for their blue veins to show (Bond & Cash, 1992; Keith & Herring, 1991). The cumulative effects of these boundaries are argued to have created social and economic stratifications that still exist in the Black community in more recent history (Keith & Herring). Despite the “Black is Beautiful” movement during the Civil Rights Era, scholars continued to find significant stratifications within the Black community as a function of skin tone (Hughes & Hertel, 1990; Keith & Herring, 1991; Ransford, 1970; Wade, Romano, & Blue, 2004) suggesting that the role of skin tone is persistent. A number of scholars have found recent evidence that hiring practices, work environments, marriage chances, and socioeconomic status are all influenced by skin tone biases (Brown et al., 1999; Harrison & Thomas, 2009; Hughes & Hertel, 1990; Keith & Herring; Wade et al., 2004).

Evidence also suggests that it is not only dark skin tone that is associated with negative outcomes. Scholars have suggested that lighter-skinned Blacks also face social penalties within and outside the Black community. Within the Black community, individuals with lighter skin may have their authenticity questioned by other Blacks resulting in marginalization (Hunter, 2007; 2013). Isolation, in turn, may remove a potential source of social support in the face of racial discrimination if individuals are marginalized in a group with which they identify. In addition, qualitative accounts by both dark and light skinned women indicate that lighter-skinned females may experience interpersonal attacks by darker-skinned females who perceive them to

be competition for the attention of males (Hunter, 2013). Moreover, despite skin tone biases, Blacks are still perceived as Black – regardless of their skin tone – and are not immune to racial discrimination experiences outside the Black community (Hunter, 2007).

Measurement of Skin Tone

While there seems to be a reasonable consensus about what skin tone is, it has proven to be a difficult construct to measure, and there is no uniform agreement among scholars about the best way to measure it. Some scholars have focused on more “objective” measures of skin tone such that experimenters themselves rate participants’ skin tones using a 5-point Likert-type scale ranging from “Very Dark” to “Very Light” (e.g., Thompson & Keith, 2001). This method, while viewed as objective, may be too sterile to capture social aspects of skin tone such as how individuals perceive or feel others perceive their skin tone in their environment. Other scholars have used what are considered subjective measures such that they have had participants rate their own perceptions of their skin tone using the same 5-point scale (e.g., Coard et al., 2001). While subjective reports of skin tone may introduce other noise into the construct such as a tendency to conflate one’s skin tone with desired skin tone, it is still an informative method of measurement that is less sterile than the objective measures. Other scholars have utilized more creative measures such as the use of color systems that allow participants to compare their skin color directly with color palettes (e.g., Bond & Cash, 1992), but critics have noted that these colors may not be representative of actual human pigments (Harvey, LaBeach, Pridgen, & Gocial, 2005). In response, other researchers have employed the use of photos of real people and made attempts to control for physical attractiveness (e.g., Harvey et al., 2005), a challenging feat to say the least. In summary, each method is accompanied by benefits and disadvantages, and there is no gold standard in the field for measuring skin tone.

Skin Tone and Psychological Adjustment

Overview of Mechanisms. Skin tone is one of the initial, primary, and most salient indicators of race (Telzer & Vazquez García, 2009) and is a trigger for racial discrimination experiences (García Coll et al., 1996). In other words, it has the ability to differentially expose individuals to adversity (e.g., racial discrimination). In light of the ever-growing area of literature documenting the relationship between racial discrimination and the mental health of African Americans (see Harrell, Hall, & Taliaferro, 2003 for review; see Pachter & García Coll, 2009 for review; see Williams & Mohammed, 2009 for review), it is expected that skin tone is associated with mental health outcomes as it is a marker for racial discrimination experiences.

Empirical relationships. The primary domain of psychological adjustment that has been studied as it relates to skin tone is self-esteem or other self-evaluative attitudes (e.g., body satisfaction, self-efficacy). Due to the historical bias against darker skin (Brown et al., 1999; Thompson & Keith, 2001), it would be expected that darker skin is associated with poorer outcomes (Coard et al., 2001; Thompson & Keith, 2001; Perry, Stevens-Watkins, & Oser, 2013; Ransford, 1970); however, empirical findings have been mixed (e.g., Robinson & Ward, 1995). Some work indicates that darker skin is actually associated with *higher* self-esteem (Harvey et al., 2005; Thompson & Keith, 2001) and other outcomes, such as self-attractiveness, but these findings appear to depend upon a host of additional factors, such as the racial composition of the settings in which the studies have been conducted, the gender of the participants, and the outcome variable of interest, among others.

With regard to the racial composition of the setting in which the study is conducted, Harvey and colleagues' (2005) finding that darker skin was associated with higher self-esteem, was obtained in the context of a Historically Black College (HBC), whereas they found no

relationship between skin tone and self-esteem among students attending a Predominantly White Institution (PWI). One possibility is that in the context of a PWI, Black students unite with each other based on their collective racial identification as Blacks, and divisions by skin tone would be counterproductive (Harvey et al. 2005). On the other hand, at an HBC, individuals have more freedom to have individual identities and form social networks based on other factors besides race, such as skin tone (Harvey et al. 2005). Therefore, skin tone would have more meaningful implications for individuals' lives at an HBC. Fegley and colleagues (2008) reported similar unexpected findings such that in a sample of multiethnic adolescents (African Asians, Latino and European Americans), youth with lighter skin endorsed *lower* positive self-attitudes than medium and darker individuals. It could be that in the context of a high school with an ethnic minority "majority," lighter skin tone might be devalued. As with Harvey et al.'s findings at the HBC, this type of contextual variable may play a role with respect to which skin tone is more highly regarded.

A second variable, which appears to play an important role in many of the conditional findings reported in studies of the link between skin tone and psychological adjustment, is gender. Wade (1996) found that darker males rated themselves as higher in attractiveness compared to lighter males' lower self-ratings. One possibility is that darker skin may be seen as more attractive in Black males (Coard et al., 2001) because of the stereotypes associated with these males' sexuality and fertility; however, it is also possible that males with darker skin tone may inflate their self-attractiveness ratings as a means of overcompensating for their knowledge of their lower social status (Wade, 1996). A finding in another study that self-esteem was lower among darker-skinned males who reported being more satisfied with their skin tone (Coard et al., 2001) suggests that Black males are aware that they are considered more desirable and attractive

(Coard et al., 2001). However, the benefits of dark skin tone in that domain (i.e., physical attractiveness) actually accrue penalties in areas from which males more traditionally derive their self-esteem, such as in their earning power (Ransford, 1970) or ability to achieve.

In a nationally represented sample of Black adults from 1980, Thompson and Keith (2001) found that darker skin tone was associated with lower self-efficacy among men (which supports the interpretation that males traditionally derive their self-esteem from their sense of being able to make a living or other such goals). However, darker skin tone was only associated with lower self-efficacy for men and with lower self-esteem for women. These findings suggest that darker skin tone may be negatively related to specific domains of self-evaluation, and that the domains impacted, may depend on gender.

Further highlighting the complex interplay among factors such as gender, the outcome of interest, and even age, is work examining the links between skin tone and several indices of psychological adjustment, such as problem behaviors and internalizing symptoms. In interviews with Black men following the Watts Riot, Ransford (1970) found that darker-skinned males endorsed more willingness to use violence to obtain Black rights and harbored more hostility towards Whites. Darker-skinned males were also more likely to be unemployed and working lower status jobs than lighter-skinned males in the sample. However, Oyserman and colleagues (2006) found that lighter skin actually served as a risk mechanism for poorer academic outcomes among Black males, and that Latino males who perceived themselves to look phenotypically less Latino were at greater risk for disruptive in-class behaviors. Oyserman and colleagues postulated that such behaviors were a function of males using “social group membership as a basis for self-definition” (Oyersman, Brickman, Bybee, & Celious, 2006, p. 854). Therefore, boys who look less phenotypically similar to their perceived social group (i.e., their ethnic/racial group), may

attempt to increase their sense of belonging to that group by engaging in behaviors stereotypically associated with that group (Oyserman et al., 2006). In summary, it seems that among the adult men, dark skin is associated with lower socioeconomic status and sense of power (Ransford, 1970), whereas for younger males – for whom occupational status is likely not as differentiated at such a young age – lighter skin is what appears to be associated with poorer outcomes (Oyserman et al., 2006). In addition to highlighting how both light and dark skin tone might serve as risk or protective mechanisms, these findings suggest that the relationship between skin tone and behaviors may be influenced by the domain of interest and contextual variables such as phenotypic similarity of individuals to their peers as well as the age of the participants under investigation.

Studies of skin tone and internalizing symptoms (e.g., depressive symptoms) are inconsistent, introduce additional factors to consider, and are difficult to interpret. Two studies indicate no association exists between skin tone and depressive symptoms for adult African Americans (Borrell, Kiefe, Williams, Diez-Roux & Gordon-Larsen, 2006; Keith, Lincoln, Taylor, & Jackson, 2010). Yet, a third study, indicates that as gendered racism experiences (e.g., unfair treatment in work and personal environments due to race and gender) increase, lighter-skinned Black women's probability of suicidal behaviors approaches zero while medium and darker complexioned women's risk increases nearly linearly (Perry et al., 2013). One factor that may play a role in the differences between Perry and colleagues' study and the others (Borrell et al.; Keith et al., 2010) is that their sample consisted of low-income African American women. Some scholars have pointed out that lower socioeconomic status may exacerbate the relationship between skin tone and psychological adjustment (Oyserman et al., 2006; Perry et al., 2013; Ransford, 1970). Reasons for this interactive effect may be that individuals from lower

socioeconomic backgrounds have less capital with which to confront racial inequalities or have less access to resources to help in coping with inequalities and feelings of powerlessness. Thus, the body of work on internalizing symptoms adds yet another contextual variable (i.e., socioeconomic status) that may shape the association between skin tone and psychological adjustment.

Rounding out the review of studies examining the link between skin tone and psychological adjustment, some studies show no association between skin tone and certain self-evaluations (Bond & Cash, 1992; Robinson & Ward, 1995). While Robinson and Ward found skin tone was related to body satisfaction among African American adolescents, they found it was not related to their self-esteem. It is not clear if such null findings are due to effects canceling each other out via gender differences and/or lack of variability in skin tone representation. For example, given that skin tone may be associated with self-esteem for females, but not males, the strength of the relationship between skin tone and self-esteem could be muted or attenuated based on gender. Furthermore, in support of the interpretation that effects may cancel each other out due to skin tone differences, only 12 of 112 participants in Robinson and Ward's study indicated being dark skinned; thus, the effect of dark skin tone was likely highly susceptible to outliers. Furthermore, the investigators initially measured skin tone using five categories from very dark to very light, but collapsed the variable down to three (i.e., dark, medium, and light) which may have reduced the variability in the effects of skin tone. Bond and Cash did not report on the skin tone break down of their participants – as is common across many studies in this area – limiting interpretations of findings. These authors also collapsed their skin tone variable from nine categories down to three. A reason for this collapse was not

provided; therefore, it was not clear if this analytic decision was due to lack of sufficient representation of very dark and very light individuals in the sample.

In summary, it appears that the greatest area of exploration with regard to the association between skin tone and psychological adjustment is the relationship between skin tone and self-evaluative attitudes such as self-esteem, self-efficacy, and body (dis)satisfaction. Less studied correlates of skin tone include (problem) behaviors, internalizing symptoms, and overall well-being. This literature review highlights the significant role that skin tone plays in the lives of Black males in spite of the long held belief that it is more relevant for females (e.g., Brown et al., 1999; Robinson & Ward, 1995). As prior studies suggest, skin tone may be relevant for males' self-efficacy, sense of belonging, and their behaviors. Another observation about this literature is that it is spread out across the lifespan without a focus on the developmental implications of skin tone at various points of transition. Scholars need to begin exploring mechanisms that can explain when and how skin tone is correlated with psychological outcomes. Elucidating such mechanisms will help to explain individual differences in the impact of skin tone over time.

Pathways from Skin Tone to Psychological Adjustment: The Role of Racial Socialization and Gender

Overview of mechanisms. Before engaging in a discussion of how racial socialization may serve as a mechanism in the association between skin tone and psychological adjustment, a conceptualization of racial socialization must be provided. *Racial socialization* refers to “the process by which young people, especially racial and ethnic minority youth, learn about the significance and meaning of race and how to cope with racism,” (Gaskin, Jones, Lee, & Neblett, 2013, p. 80). The racial socialization process occurs by parents communicating messages to their offspring about navigating both inter- and intra-ethnic interactions (Stevenson & Arrington,

2009). The primary types of messages that have been identified in the literature include messages that emphasize pride in one's cultural background (e.g., "be proud that you are Black"), preparation for racial inequalities or barriers (e.g., "Blacks have to work twice as hard"), and egalitarianism (e.g., "if you work hard, you can achieve anything") (Hughes et al., 2006). Other messages that have been less examined include negative messages (e.g., "Black businesses are unreliable") and behavioral messages (e.g., engaging in behaviors that promote pride in one's culture such as attending an NAACP meeting) (Bowman & Howard, 1985; Boykin & Toms, 1985; Lesane-Brown, Scottham, Nguyễn, & Sellers, 2006).

Given Black families' key role in passing on racial attitudes (Boyd-Franklin, 1991; Fegley et al., 2008; García Coll et al., 1996; Wallace, Townsend, Glasgow, & Ojie, 2011; Wilder & Cain, 2011), racial socialization is one critical family process in African American families (Hughes et al., 2006) that may serve as a mechanism by which skin tone is associated with psychological adjustment. Specifically, racial socialization may: 1) supply individuals with a repertoire of coping skills that can be protective or harmful to their mental health; 2) impact how individuals feel about themselves (e.g., self-esteem, satisfaction with their physical appearance); 3) affect how individuals appraise discriminatory experiences; and 4) influence individuals' racial identities (e.g., how positively they feel about being Black, how important their race is to them, etc.) (Neblett, Rivas-Drake, & Umaña-Taylor, 2012). Through these various mechanisms, racial socialization may be associated with the relationship between skin tone and psychological adjustment such that it both moderates and mediates the effects of skin tone.

With regards to its role as a moderator, racial socialization may exacerbate or attenuate the relationship between skin tone and psychological adjustment by any of the mechanisms mentioned above (e.g., supplying youth with a set of coping skills when encountering racial

adversity). For example, darker skin may be associated with lower self-esteem for individuals who have not been equipped with frequent messages warning them of racial discrimination and emphasizing cultural pride as compared to other dark skinned youth who have received an abundance of such messages. Moreover, these relationships may differ for males and females. In the previous example, the buffering effect of racial socialization may be even stronger for females as skin tone may be more closely linked with their self-esteem.

With regards to the role of racial socialization as a mediator, it may be the case that skin tone influences the racial socialization that individuals experience and that the racial socialization individuals receive then influences their psychological adjustment by offering them coping skills with which to handle racial stress. For example, parents may tailor the messages they give their children about race based on their sons' or daughters' skin tones because of the racial discrimination parents anticipate their skin tones will evoke from the environment. In line with this assertion, some scholars examining the broad socialization of African American adolescents hypothesize that parents provide sons and daughters with different socialization experiences due to different racial experiences that boys and girls may have (Cunningham, Swanson, Spencer, & Dupree, 2003). These observations suggest that parents may be employing different child-rearing strategies with their youth based on the individual characteristics of the youth such as gender. Therefore, it may be the case that other specific parenting behaviors, such as racial socialization, would be tailored as well, as a function of individual characteristics such as skin tone. For example, if parents anticipate their offspring will have higher chances of encountering racial discrimination, they may impart messages about navigating a racialized society to their youth to prepare them for encounters of discrimination, in turn, facilitating better psychological adjustment. This point can be most clearly demonstrated by recent current events

including the murders of two young Black males, Trayvon Martin and Jonathan Ferrell. The murder of these young, black boys left many Black parents asking what they could possibly tell their sons about what it means to be Black males, and how these messages would impact their sons' self-images. Black parents are tasked with such challenges as preparing their youth for racial injustices. Indeed, the literature is replete with empirical support that a relationship exists between racial socialization and psychological adjustment (e.g., Bynum, Burton, & Best, 2008; Davis & Stevenson, 2006; McHale et al., 2006; Neblett et al., 2008).

Furthermore, the ways in which racial socialization may mediate the relationship between skin tone and psychological adjustment may be moderated by gender. For example, the association between darker skin tone and messages that focus on racial inequalities may be stronger for boys. These relationships may, in turn, be related to different psychological adjustment outcomes for darker males as compared to darker females. There is evidence that males may receive more messages about racial barriers (e.g., Hughes et al., 2006), and perhaps this is even truer for darker males. Therefore, such messages may be more likely to exert influence on these males' psychological adjustment. Another example is that lighter skin is often considered a more desired beauty characteristic for African American females (Thompson & Keith, 1991). Therefore, parents of such daughters may impart more egalitarian values to them since they may be more easily accepted by society than if they were darker or males. These females, in turn, may have higher self-efficacy because they have been told hard work pays off.

Empirical evidence.

Racial socialization as a moderator. Fegler and colleagues (2008) hypothesized that racial socialization may serve as a protective buffer for youth in regards to the impact of their physical features, but only one study to date has empirically examined the moderating role of

racial socialization. In a sample of U.S. born and immigrant Latina undergraduates, Telzer and Vazquez García (2009) found that racial socialization buffered the relationship between dark skin tone and lower skin tone satisfaction. Specifically, among darker-skinned Latinas, those who received more messages preparing them for racial discrimination endorsed higher attractiveness self-ratings in comparison to those who received fewer such messages.

Additionally, more messages preparing the women for racial discrimination were related to more satisfaction for darker-skinned women compared to those who received fewer such messages. This same finding was true for darker-skinned women who received messages deemphasizing the role of race compared to those who received fewer. Taken together, these findings suggest that messages preparing individuals for discrimination as well as messages that deemphasize race may be protective. Surprisingly, messages emphasizing pride did not moderate these relationships and none of the racial socialization scales moderated the association between skin tone and self-esteem. Such findings suggest that the protective nature of racial socialization messages may depend on the outcome being considered.

Though not a study of skin tone per se, but of colorism (i.e., bias against darker skin tones), Wallace and colleagues (2011) found in a sample of African American adolescent females that racial socialization messages buffered the negative relationship between their rejection of colorism ideology and substance use behavior. Specifically, as girls rejected colorism ideals (i.e., ideals favoring Eurocentric features such as light skin tone), substance use decreased the most for the girls who received the fewest amount of messages emphasizing the acceptance of mainstream values – akin to egalitarian messages that de-emphasize race – as compared to girls who also rejected notions of colorism, but received more mainstream messages. Additionally, girls who endorsed colorism ideals, but who received the fewest

mainstream messages reported the most substance use. These scholars also found marginal evidence of a buffering effect of receiving more messages warning girls of discrimination, particularly for girls who rejected colorism ideals. While the first study indicates that racial socialization may serve as a moderating mechanism that may impact the association between skin tone and psychological adjustment, the second study highlights that the effects of attitudes about skin tone may be moderated by racial socialization. Moreover, they suggest that messages emphasizing racial inequalities and egalitarian values may be particularly important to well-being. These findings also demonstrate the benefit that racial socialization may serve for females, but there is a lack of information about its role for males as none were included in either sample. Literature suggests that males receive more messages preparing them to encounter discrimination (Hughes et al., 2006); therefore, researchers should examine whether such messages serve as a buffer for males in regard to the association between their skin tone and psychological adjustment. Additionally, future studies should examine the effects of skin tone and not just attitudes about skin tone.

Racial Socialization as a Mediator

This study aims to provide a unique contribution to the field by examining racial socialization as a mediator of the association between skin tone and psychological adjustment. In a series of focus groups exploring the role of colorism in the lives of African American adult women, Wilder and Cain (2011) noted that the role of the family in instilling, maintaining, and challenging colorism ideologies was raised by participants so much so that they had to shift their focus towards understanding the family's role in this process. Many women recanted stories from their childhood and adolescence during which they learned to place certain values on particular skin tones. Some women recalled stories of being told to keep out of the sun –

presumably, to prevent darkening from the sun. Others recalled lighter-skinned family members being treated with preference, and darker-skinned members being overlooked or thought of as less attractive. One woman in the group pointed out how she had difficulties dating men because she felt her dark skin made her unattractive as a result of family messages she received growing up. This qualitative work lends support that the family does shape attitudes about race and racialized features (e.g., skin tone) and that these attitudes can have pervasive impacts on women's lives years and even decades after such attitudes are learned. Empirical work is also needed to examine the mediating role of racial socialization in the relationship between skin tone and psychological adjustment. Furthermore, this work is sorely needed in an emerging adult context and in mixed-gender samples.

Gender as a Moderator of Mediation

Given that the many impacts of skin tone are so interwoven with gender (see Brown et al., 1999 for review), it is likely that the associations between skin tone and messages parents impart to youth about race depend on youth gender. For example, parents may give fewer messages to their light skinned daughters that warn of racial discrimination as compared to what they give to their light skinned sons, who as a function of being Black males may be more likely to encounter racial discrimination (Greer, Laseter, & Asiamah, 2009). Scholars have found evidence that males and females have unique racial socialization experiences (Bowman & Howard, 1985; Hughes et al., 2006), however, it is not known if these experiences differ for youths of various skin tones. Consistent with studies linking racial socialization and adjustment in African American youth (e.g., Harris-Britt, Valrie, Kurtz-Costes, & Rowley, 2007; Neblett et al., 2008), these differences in racial socialization should then translate into differential psychological adjustment.

Study Aims and Hypotheses

The aims of this study are: 1) to examine if skin tone is related to psychological outcomes in an emerging adult sample; 2) to investigate if racial socialization moderates the association between skin tone and several psychological adjustment outcomes; 3) to evaluate the mediating role of racial socialization messages in the skin tone-psychological adjustment link; and 4) to explore whether gender moderates the mediating role of racial socialization in the relationship between skin tone and psychological adjustment. Aims 1 and 2 are depicted in Figure 1, and Aims 3 and 4 are collectively depicted in Figure 2. I was also interested in exploring the impact of socialization specific to skin tone (i.e., *skin tone socialization*); thus, my exploratory aims were to explore the role of skin tone messages in the same manner in which I examined the role of racial socialization in Aims 2-4. In light of the primary and exploratory study aims, the hypotheses are as follows:

Hypothesis 1. It is expected that individuals whose skin tones are on the extremes (i.e., very light and very dark) will evidence poorer outcomes. Briefly, this hypothesis is due to the historical bias against dark skin tone (e.g., Brown et al., 1999; Thompson & Keith, 2001) as well as evidence that being very light skin may pose difficulties for individuals such as having their authenticity questioned or not fitting in (e.g., Hunter, 2013; Oyserman et al., 2006).

Hypothesis 2. Racial socialization and skin tone socialization messages emphasizing pride in one's culture, valuing of all skin tones, warnings about racial socialization, and fewer egalitarian (e.g., deemphasizing race) values will buffer against the negative effects of skin tone. Literature points to the benefits of messages about pride in one's culture accompanied by warnings of discrimination (Neblett et al., 2008). Furthermore, one study found that egalitarian

messages may be less healthy when females embrace colorism ideals (Wallace et al. 2011); therefore, it is expected that socialization with fewer such messages will be most salutary.

Hypothesis 3. Racial and skin tone socialization will mediate the association between skin tone and psychological adjustment. For example, darker emerging adults may be more likely to receive certain racial or skin tone socialization due to their parents having different expectations about the type of racial experiences they will encounter. In turn, socialization experiences will be related to differential outcomes for darker individuals as compared to lighter individuals. For example, darker emerging adults may be more likely to receive socialization emphasizing pride in their race and skin tone because their parents may have tried to counteract effects of discrimination. In turn, emerging adults who receive such messages will show favorable outcomes.

Hypothesis 4. Gender is expected to moderate the mediation processes underlying the relationship between skin tone, racial and skin tone socialization, and psychological adjustment. If parents tailor socialization messages as a function of the discrimination they anticipate their dark or light skinned offspring experiencing, then gender would serve as an additional social position variable to inform their parenting strategies (García Coll et al., 1996). For example, the likelihood of darker-skinned individuals receiving socialization described in the previous hypothesis may increase, if they are females, given the evidence that darker-skinned females may be more likely to experience the negative effects of darker skin tone compared to darker-skinned males. Such a prediction would be supported by evidence that lighter skin may serve as a risk mechanism for adolescent boys (Oyserman et al., 2006) and that lighter skin is generally idealized in females (e.g., Brown et al., 1999).

METHOD

Participants

One-hundred-ninety-two self-identified Black emerging adult students (54.2% female; $n = 104$; mean age = 20.39, $SD = 1.58$) were recruited from a large, southeastern university where the Black students make up approximately 8.7% and 7.4% of the undergraduate and graduate student bodies, respectively (Office of Institutional Research and Assessment, 2013). Biracial and multiracial individuals were not excluded as long as they self-identified as Black. Thirty-seven individuals reported biracial or multiracial identities. Additionally, 20 participants identified as African and 22 as Caribbean. On average, participants reported being from “Middle Class” backgrounds, having mothers who received bachelor degrees, and having fathers with the equivalent of an associate’s degree, community college education, or some college experience.

Recruitment and informed consent. Participants were recruited via flyers, announcements at Black student group meetings, and by sending emails to a registrar-provided list of self-identifying Black students. A link to the survey was included in the email, and anyone recruited via flyers or announcements was provided with the link to the survey as well. The first page of the survey site contained the consent form. A participant’s choice to continue beyond the consent page was taken as consent to participate in the survey. Due to the very high participation of female participants, the researcher stopped actively recruiting female participants and only recruited males.

Confidentiality procedures. Participant confidentiality was protected in two ways: 1) all responses were anonymous such that participants’ names, contact information, and IP addresses

were not collected in the study survey; thus, individuals' responses could not be traced back to them, and 2) participants who desired compensation were prompted to provide email addresses in a separate Qualtrics survey – so as not to be linked with their responses – that automatically generated at the completion of the study survey. Only the researcher accessed the email addresses and she maintained an electronic password-protected word document with record of payment to the addresses.

Procedure

Research team and tasks. The research team consisted of me (the principal investigator) and three undergraduate research assistants who identify as ethnic minorities. Two undergraduate assistants, who self-identified as a light brown African American female and a medium brown Pakistani female, transferred the paper survey to Qualtrics and then emailed various student groups in which they were involved (e.g., Black Student Movement, Muslim Students Association) to recruit more Black students. The third assistant who identified as a dark brown African American male and a member of a Black Greek organization announced the study at the university's largest Black student group monthly meeting, and distributed flyers to eligible males. The principal investigator who identifies as a light African American female had contact with participants only through email.

Data collection. Data were collected at one time point; thus, the study was cross-sectional. Participants completed a series of questionnaires on the Qualtrics website. Since participants were provided with the survey link in the recruitment email, they could complete the study from their own computers at any time and location. The survey took approximately 30 minutes to complete. Each page of the online survey reminded participants that their responses were very important to the researcher, but that they could skip any question for any reason and

that their responses were anonymous. After completing the survey, a debriefing form was displayed providing participants with information on the study as well as local therapeutic services in the event that the survey triggered any negative emotional responses. Finally, after reading the debriefing form, participants were automatically redirected to a separate survey to provide their email address for compensation purposes. Participants were compensated within a week with a \$5 electronic Amazon gift card.

Measures

Demographic information. Participants' demographic information such as sex, age, race/ethnicity, socioeconomic status, neighborhood context, parent education, and other background information were obtained via self-report.

Skin tone. Skin tone was the independent variable in the study. Participants self-rated their skin tones on a continuous scale from White/Very Light to Very Dark (0=White-100=Very Dark). The scale included five color pictures as anchor points from White/Very Light to Very Dark. The participants were asked to slide a tick mark to the number they believed represented their skin tone. The pictures were color swatches of makeup foundation. The shades were pilot tested among 12 undergraduate and graduate Black students to establish that the students agreed on the order of gradation of the shades. All pilot students ranked the shades in the same order from lightest to darkest.

Racial Socialization. The Teenager Experience of Racial Socialization scale (TERS; Stevenson, Cameron, Herrero-Taylor, & Davis, 2002) assessed participants' experiences of parental racial socialization across their lifetime. The TERS operationalized racial socialization, which was both a moderator and mediator in the study. The TERS consists of five subscales that measure the frequency with which participants received certain messages from their primary

caregiver(s). The frequency of messages was measured on a three-point scale from one to three (1 = *never*, 2 = *a few times or twice*, 3 = *lots of times*). The five subscales include: 1) *Cultural Coping with Antagonism* (e.g., “Only God can protect against racism,” “Having large families helps life struggles”; CCA; $\alpha = .87$) which measures messages emphasizing the importance of bearing through and overcoming racial inequalities as well as the importance of spiritual and religious coping; 2) *Cultural Appreciation of Legacy* (e.g., “We are connected to African royalty history,” “Knowing African culture is important”; CAL; $\alpha = .78$) which measures messages about cultural issues that have historically been relevant to African Americans such as slavery and West African culture; 3) *Cultural Alertness to Discrimination* (e.g., “Whites have more opportunities than Blacks,” “Blacks don’t have same opportunities as Whites”; CAD; $\alpha = .88$) which measures messages aimed at teaching youth about the existence of racism and how to navigate interracial interactions with Whites; 4) *Cultural Endorsement of the Mainstream* (e.g., “Society is fair to African Americans,” “Black children feel better in White schools”; EM; $\alpha = .65$) which measures the frequency of messages that endorse majority cultural institutions and values; and 5) *Cultural Pride Reinforcement* (e.g., “You should be proud to be Black,” “Never be ashamed of your color”; CPR; $\alpha = .72$) which measures the frequency of messages that emphasize having pride in African American culture. An average score for each scale was obtained with higher values indicating more frequent messages. This scale has shown good psychometrics among an African American emerging adult sample in previous work (e.g., Brown & Tylka, 2011).

Skin tone socialization. A skin tone socialization measure was developed as part of the exploratory aims of the study (see Appendix). Questions for the measures were developed from themes raised in a review of the literature, a documentary called “Dark Girls” (Duke & Berry,

2011), and a discussion facilitated among a group of 12 African American undergraduate and graduate students regarding the messages they recalled hearing about skin tone while growing up. Skin tone socialization was examined as a moderator and mediator of the skin tone-psychological adjustment link in the study. A principal components analysis (PCA) revealed the presence of two components: 1) messages that emphasized an appreciation for all shades of skin such as “Blacks comes in many beautiful shades” (APPR; 3 items; $\alpha = .71$); and 2) messages that communicated a bias against certain shades such as being “told not to date or marry someone because of their shade of skin,” (BIAS; 9 items; $\alpha = .86$). The frequency of these message types was measured on a 3-point scale: (1 = *never*, 2 = *a few times or twice*, 3 = *lots of times*). Then, an average score was obtained for each scale.

Psychological well-being. Four indicators of psychological well-being were evaluated as dependent variables: 1) depressive symptoms; 2) problem behaviors; 3) self-esteem; and 4) well-being.

Depressive symptoms. Depressive symptoms were measured using the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977; $\alpha = .76$). This 20-item inventory assessed the frequency with which participants experienced various symptoms of depression (e.g., “I did not feel like eating; my appetite was poor”) over the past week. Responses were coded such that higher scores indicated more frequent experiences of depressive symptoms (0 = *experienced symptoms less than 1 day* to 3 = *5-7 days*). This scale has shown good psychometric properties among an African American emerging adult sample in previous work (e.g., Banks & Kohn-Wood, 2007).

Problem behaviors. Problem behaviors were assessed using a 7-item inventory ($\alpha = .36$) adapted from work by Elliott, Huizinga, and Menard (1989). This inventory was used to measure

the frequency with which participants had engaged in problem behaviors over the course of the past year including: 1) vandalism for fun; 2) skipping class without a valid reason; 3) fighting at school; 4) fighting outside of school; 5) being officially reprimanded by the university; 6) getting into trouble with the police for something you did; and 7) cheating on exams. Some items were adapted to be more developmentally appropriate (e.g., being sent to the principal's office versus being officially reprimanded by the university or job). Each item was rated on a 5-point scale ranging from never to more than 20 times (1=*never* to 5=*more than 20 times*) and an average score was obtained across the seven items. Higher scores indicated more frequent engagement in problem behaviors. This measure was dropped from the study and not used in subsequent analyses due to poor reliability.

Self-esteem. Global self-esteem was assessed using the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965; $\alpha = .90$). Participants rated the degree to which they agreed with 10 statements (e.g., "I feel that I have a number of good qualities") on a 4-point scale (1 = *strongly agree* to 4 = *strongly disagree*). An average across all items was calculated. Items were coded such that higher scores indicated higher global esteem. This scale has shown good psychometric properties among an African American emerging adult sample in previous work (e.g., Bang, 2015).

Psychological well-being. Psychological well-being was assessed using a 24-item abbreviated version of the Psychological Well-being Scale (PWB; Ryff, 1989; $\alpha = .82$). The PWB measures well-being across six areas including: 1) *self-acceptance* (e.g., "In general, I feel confident and positive about myself"); 2) *positive relationships with others* (e.g., "My friends and I sympathize with each other's problems"); 3) *autonomy* (e.g., "In general, I feel I am in charge of my life"; 4) *environmental mastery* (e.g., I am quite good at managing the

responsibilities of my daily life”); 5) *purpose in life* (e.g., “I have a sense of direction and purpose in life”); and 6) *personal growth* (e.g., “I feel that I have developed a lot as a person over time”). Items were rated on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. All items were averaged to obtain an overall score of well-being with higher scores indicating higher levels of well-being.

Covariates.

Parent-emerging adult relationship quality. The quality of the parent-emerging adult relationship was assessed via participant report using the 28-item Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1987; $\alpha = .95$). The IPPA measures three dimensions of relationship quality including: 1) *mutual trust* (e.g., “I can count on my parents when I need to get something off my chest”); 2) *quality of communication* (e.g., “I like to get my parents’ point of view on things I’m concerned about”); and 3) *extent of anger and alienation* (e.g., “My parents accepts me as I am”). Items were rated on a 5-point scale from 1=*almost never or never true* to 5=*almost always or always true*. Peer relationships were not assessed. Some items were reverse coded and then all items were averaged to form one total scale average. Armsden and Greenberg recommend not utilizing subscales with the measure. Higher scores indicated that participants viewed their parents as sources of psychological security. This measure was used to account for the role of broader parenting factors when conceptualizing the role of racial socialization.

Socioeconomic status. Given that skin tone is related to socioeconomic stratifications (e.g., Thompson & Keith, 2001), socioeconomic status was controlled for in this study. Participants were asked to report on the highest level of education their male and female primary

caregivers had obtained (e.g., high school education), and these were used as proxies of socioeconomic status.

Age. Participants reported their ages in years in whole numbers. Given that the sample ranged developmentally from undergraduate freshmen to graduate students, age was controlled for in the study.

Sex. Participants reported their sex as male (coded as 1) or female (coded as 2). Sex was utilized as a covariate in some of the analyses as males and females often have different experiences with their skin tone, socialization, and psychological adjustment. Sex was used as a moderator in one set of analyses.

RESULTS

Data Analytic Approach

Preliminary analyses. All analyses were performed using SPSS version 22.

Preliminary analyses included descriptive statistics among the covariates (i.e., maternal and parental education, age, and parental relationship quality), skin tone, racial and skin tone socialization variables, and psychological adjustment variables (i.e., depressive symptoms, well-being, self-esteem, and problem behaviors). Specifically, means, standard deviations, and Cronbach alphas were obtained. Additionally, using bivariate zero-order correlations, associations among and between variables were calculated among the key continuous variables. Data were evaluated for assumptions of normality, linearity, multicollinearity, and homoscedasticity. Preliminary analyses also included a principal component factor analysis of the 13-item skin tone socialization questionnaire developed to examine the impact of skin tone socialization messages on the relationship between skin tone and psychological adjustment.

Aims 1 and 2. The relationship between skin tone and the psychological adjustment outcome variables (Aim 1), as well as the moderating impact of individual racial socialization messages (Aim 2), were tested using hierarchical regression analyses. Variables were centered before creating interaction terms. In the first step of hierarchical multiple regression, maternal and parental education, age, gender, and parental attachment quality were entered as covariates. The gender variable was coded as 0 for female and 1 for male. The linear and quadratic skin tone effects were added in the second and third steps, respectively; five racial socialization variables were added in the fourth step; two-way interactions were entered in the fifth step; and quadratic

two-way interactions were added in the sixth step. A statistically significant R square change was interpreted as evidence that a block of variables made a statistically significant contribution to the model, and coefficients of each variable within blocks of variables were examined to assess the unique contribution of each variable. Significant interactions were interpreted by plotting regression lines (or quadratic effects) 1 *SD* above and below the mean for skin tone and the racial socialization moderators. Separate regression models were run for each of three dependent variables: depressive symptoms, self-esteem, and well-being. Exploratory analyses to examine the moderating effects of skin tone socialization messages included three additional regression analyses (i.e., one for each DV) utilizing the previous steps. In the exploratory regression analyses, the two variables representing the skin tone socialization subscales replaced the five racial socialization subscale variables.

Aims 3 and 4. To examine the mediating effects of racial socialization in the relationship between skin tone and psychological adjustment (Aim 3), as well as the moderating role of participant gender on the mediation effect (Aim 4), I planned to conduct three mediation and then three moderated mediational analyses using the PROCESS macro developed by Andrew Hayes (2012). The multiple mediation analytic procedure was used to evaluate whether or not component dimensions of racial socialization and skin tone socialization indirectly influenced the association between skin tone and psychological adjustment. This approach is recommended for assessing models in which multiple intervening variables are simultaneously tested and conveys advantages over the traditional causal steps approach in which the investigator estimates the paths of the model and assesses the extent to which several criteria are met (see Preacher & Hayes, 2008). Preacher and Hayes recommend the bootstrapping method which consists of deriving confidence intervals for the specific indirect effects through multiple mediators – to

address the assumption that the paths that constitute the indirect effect follow a multivariate normal distribution (an assumption which often is not true; Neblett, Banks, Cooper, & Smalls-Glover, 2013). For Aim 3 (i.e., mediation), each of the three psychological adjustment outcome variables was regressed onto the four covariates (i.e., age, maternal education, paternal education, and parental attachment quality), the predictor variable (i.e., skin tone), and all five racial socialization variables. For Aim 4 (i.e., moderated mediation), I planned to conduct similar analyses to Aim 3, but because the moderation effect was hypothesized to occur at the pathway between skin tone and the socialization mediators, the mediators were also each regressed onto skin tone, gender, and the interaction between skin tone and gender.

Descriptive Statistics: Skin Tone, Racial and Skin Tone Socialization Variables, and Psychological Adjustment Outcomes

Means, standard deviations, and correlations for study variables are summarized in Table 1. Participants rated their skin tone on average as medium ($M = 56.14$, $SD = 18.29$). Participants reported receiving mainstream (EM) messages ($M = 1.30$, $SD = .34$) “almost never”; cultural coping with antagonism (CCA; $M = 1.91$, $SD = .47$), cultural appreciation of legacy (CAL; $M = 2.08$, $SD = .55$), and cultural alertness to discrimination (CAD; $M = 2.19$, $SD = .58$) messages, “a few times”; and receiving somewhat more cultural pride reinforcement (CPR; $M = 2.49$, $SD = .35$) messages. Participants also reported almost “never” receiving skin tone bias messages ($M = 1.24$, $SD = .36$) and receiving skin tone appreciation messages only “a few times” ($M = 2.14$, $SD = .67$). Participants, on average, demonstrated favorable psychological adjustment as indexed by “rarely” experiencing depressive symptoms ($M = 1.02$, $SD = .36$), moderate to high levels of self-esteem ($M = 2.30$, $SD = .58$), and having high levels of psychological well-being ($M = 3.67$, $SD = .47$).

The associations among skin tone, racial and skin tone socialization, and psychological adjustment were evaluated using bivariate zero-order correlations (Table 1). Most racial and skin tone messages were positive correlated with one another. CCA messages were strongly related to CPR ($r = .63; p < .01$), CAL ($r = .58; p < .01$), CAD ($r = .53; p < .01$) messages, and moderately related to EM ($r = .44; p < .01$), APPR ($r = .35; p < .01$), and BIAS ($r = .26; p < .01$) messages. CPR messages were also strongly related to CAL ($r = .62; p < .01$) and CAD ($r = .55; p < .01$), and moderately related to EM ($r = .32; p < .01$) and APPR ($r = .44; p < .01$). CAL messages were strongly related to CAD ($r = .61; p < .01$) messages, and moderately related to EM ($r = .33; p < .01$) and APPR ($r = .42; p < .01$) messages. CAD messages were moderately related to EM ($r = .33; p < .01$) and APPR ($r = .26; p < .01$) messages. EM messages were moderately related to BIAS ($r = .24; p < .01$) messages. BIAS messages were also related to APPR messages ($r = .18; p < .05$).

There was only one association between skin tone and the socialization variables. Specifically, skin tone was positively associated with CAL messages ($r = .15; p < .05$), such that participants with darker skin tone reported receiving more messages about the importance of knowing your cultural legacy.

Racial socialization was also significantly associated with psychological adjustment outcomes. CCA messages were positively related to depressive symptoms ($r = .16; p < .05$); CPR messages were positively related to well-being ($r = .15; p < .05$); APPR messages were positively related to both self-esteem ($r = .27; p < .01$) and well-being ($r = .26; p < .01$); and BIAS messages were negatively related to well-being ($r = -.22; p < .01$).

There were no associations between skin tone and psychological adjustment outcomes at the bivariate level.

Factor Analysis: Skin Tone Socialization Scale

The 13-items of the skin tone socialization scale were subjected to a principal components analysis (PCA) using SPSS version 22 (Table 2). It was determined that the data were suitable for factor analysis. The correlation matrix was examined and it was determined that there were many coefficients .3 and above. The Kaiser-Meyer-Olkin value of .83 exceeded the recommended value of .6 (Kaiser, 1970), and Bartlett's Test of Sphericity (Bartlett, 1954) was significant, supporting the factorability of the correlation matrix.

PCA revealed the presence of two components with eigenvalues exceeding 1, explaining 36.77% and 14.71% variance, respectively. The scree plot (Figure 3) showed a clear break after the second component. Using Cattell's (1966) scree test, it was decided to retain two components for further examinations.

The two-component solution explained a total of 51.48% of the variance, with Component 1 contributing 36.77% and Component 2 contributing 14.71%. Oblimin rotation was performed to help with interpretation of the components. The rotated solution showed a simple structure (Thurstone, 1947), with both components having a number of strong loadings and all items, except for one, loading substantially on only one component. The item that loaded onto both components (i.e., "your parents have said that you or someone you know was attractive because of the color of your skin") was removed from the scale. Reliabilities were then obtained to ensure both components still held together sufficiently. The items loading strongly on the first component represented items associated with skin tone bias, or colorism ideals (e.g., parents told you not to date/marry someone because they were light or dark), while items loading strongly onto the second component represented an appreciation for skin tone differences (e.g., your parents told you Blacks come in many beautiful shades). There was a weak positive correlation

between the two factors ($r = .18$). The results of this analysis support the use of the bias items (BIAS) and the appreciation (APPR) items as separate scales.

Primary Analyses

Aim 1: Association between skin tone and psychological adjustment. To examine if there is an association between skin tone and psychological adjustment (Aim 1), curvilinear regression, which included the main effect of skin tone along with its squared term, was performed for each of the three psychological adjustment outcomes (Table 3). As noted previously, sex, parental attachment, age, gender, and maternal and paternal educational attainment were controlled for in the first step. The linear effect of skin tone was added as a main effect in the second step; while the quadratic effect was added in the third step. A significant R-square change for step 2 or 3 indicated that the linear or quadratic effect of skin tone accounted for a statistically significant portion of the variance in the psychological outcome under investigation, respectively.

Covariates of psychological adjustment outcomes (step 1).

The first step of the curvilinear regression models that assessed the impact of racial socialization on psychological adjustment explained approximately 9.9% of the variance in depressive symptoms, 17.2% of the variance in self-esteem, and 22.3% of the variance in well-being (Table 3). The only significant covariate in all of the models was the level of parental attachment. The level of parental attachment was negatively related to depressive symptoms ($b = -.14$; $p < .001$), and positively related to self-esteem ($b = .30$; $p < .001$) and well-being ($b = .25$; $p < .001$).

Linear association between skin tone and psychological adjustment outcomes (step 2).

The linear association between skin tone and psychological adjustment was nonsignificant for depressive symptoms ($b = .002$; $p = .28$), self-esteem ($b = -.003$; $p = .16$), and well-being ($b = .00$; $p = .86$). In other words, there was no apparent linear relationship between skin tone and any of the psychological adjustment variables assessed in the study (Table 3).

Quadratic effect of skin tone and psychological adjustment outcomes (step 3).

The quadratic association between skin tone and psychological adjustment was nonsignificant for depressive symptoms ($b = -.00$; $p = .12$) and self-esteem ($b = -.00$; $p = .53$). However, the quadratic effect of skin tone was significant for well-being (and $b = .00$; $p = .01$) as evidenced by a significant R square change (Table 3, Step 3). Individuals with lighter and darker skin tones had slightly less favorable psychological well-being than their counterparts with moderate or medium skin tone (see Figure 4).

Aim 2: Racial socialization as a moderator of the association between skin tone and psychological adjustment. To examine if socialization moderates the association between skin tone and psychological adjustment (Aim 2), I first examined the main effects of racial (Table 3) and skin tone racial socialization (Table 4) in separate models (Step 4), followed by evaluation of the interaction effects of socialization with skin tone (Step 5) and the quadratic effect of skin tone (Step 6). A significant R-squared change for step 4 suggested that racial socialization was related to psychological adjustment outcomes across all skin tones. A significant R-square change for step 5 suggested a significant linear interaction effect that accounted for additional variance in the psychological adjustment outcome, while a significant R-square change for step 6 indicated that the moderation of the quadratic skin tone effect significantly accounted for incremental variance in psychological adjustment.

Socialization predictors of psychological adjustment outcomes (step 4).

Depressive symptom. For the model that examined the impact of racial socialization as a moderator between skin tone and depressive symptoms, the main effects of racial socialization were nonsignificant (Table 3): CCA ($b = .12; p = .14$), CPR ($b = .01; p = .90$), CAL ($b = .03; p = .69$), CAD ($b = -.05; p = .38$), and EM ($b = .08; p = .39$). The main effects of skin tone socialization (Table 4) also were unrelated to depressive symptoms: BIAS ($b = .05; p = .49$) and APPR ($b = -.05; p = .29$).

Self-esteem. For the self-esteem model, the main effects of racial socialization were nonsignificant (Table 3): CCA ($b = .02; p = .85$); CPR ($b = .06; p = .73$); CAL ($b = -.003; p = .98$); CAD ($b = .01; p = .92$); and EM ($b = -.10; p = .49$). However, the main effect of APPR skin tone socialization was significant such that greater frequency of skin tone appreciation messages (APPR) was associated with greater self-esteem ($b = .17; p = .01$). BIAS messages were unrelated to self-esteem ($b = .12; p = .56$).

Well-being. For well-being, the main effects of racial socialization were nonsignificant: CCA ($b = -.12; p = .21$); CPR ($b = .13; p = .35$); CAL ($b = -.04; p = .64$); CAD ($b = .14; p = .07$); and EM ($b = .01; p = .94$). Of note, however, BIAS skin tone messages were negatively associated with well-being ($b = -.21; p = .02$), while APPR messages were positively associated with well-being ($b = .13; p = .01$).

Moderated linear association between skin tone and psychological adjustment outcomes (step 5).

Depressive symptoms. For depressive symptoms, there were no significant linear interactions for the racial socialization messages (Table 3). However, there was a significant linear interaction for skin tone socialization messages (Table 4). Specifically, the impact of skin

tone on depressive symptoms depended on the frequency of BIAS messages participants reported receiving ($b = .01$; $p = .002$). The interaction was probed using an online calculator at www.quantpsy.org. Simple slopes for the association between skin tone and depressive symptoms were tested for low (-1 SD below the mean), moderate (mean), and high (+1 SD above the mean) amounts of BIAS messages received. For individuals who received lower amounts of BIAS messages, skin pigmentation was negatively associated with depressive symptoms ($b = -.01$; $p < .001$). For individuals who received high amounts of BIAS messages, greater skin pigmentation (or darker skin) was associated with more depressive symptoms ($b = .01$; $p < .001$, respectively). This interaction is depicted in Figure 5. The Johnson-Neyman technique was used in order to identify regions in which the association between skin tone and depressive symptoms was significant for various levels of BIAS messages (Hayes & Matthes, 2009; Johnson & Neyman, 1936; Spiller, Fitzsimons, Lynch, & McClelland, 2012). Consistent with the patterns described above, the Johnson-Neyman points for $p < .05$ occur at values below $z = -.4702$ (i.e., individuals .47 SD below the mean) and above $z = .1681$ (.17 SD above the mean) for BIAS messages.

Self-esteem. There was no significant moderated linear effect of racial or skin tone socialization on the association between skin tone and self-esteem.

Well-being. There also was no significant linear interaction between skin tone and the racial or skin tone socialization messages for psychological well-being.

Summary. Only one significant linear interaction emerged of the three dependent variables assessed. BIAS skin tone socialization messages acted as a vulnerability factor that exacerbated the association between skin tone and depressive symptoms.

Moderated quadratic association between skin tone and psychological adjustment outcomes (step 6).

Depressive symptoms. For depressive symptoms, there were no significant quadratic interactions for racial or skin tone socialization messages.

Self-esteem. There was no significant moderated quadratic effect of racial or skin tone socialization on the association between skin tone and self-esteem.

Well-being. A significant interaction effect emerged for the quadratic effect of skin tone and appreciation skin tone socialization messages (Table 4; $b = .00$; $p = .05$). Using Excel worksheets at <http://www.jeremydawson.co.uk/slopes.htm> for plotting quadratic interactions moderated by one variable, an inverted-U relationship was apparent for individuals receiving high levels of APPR (appreciation) messages (Figure 6). Individuals with medium or moderate skin tone who received more APPR messages evidenced more favorable well-being than individuals with light or dark skin tone who also received high levels of APPR messages. There was no quadratic association between skin tone and well-being for individuals who reported lower levels of APPR messages. The Johnson-Neyman technique was used in order to identify regions in which the quadratic association between skin tone and well-being was significant at various levels of APPR messages (Hayes & Matthes, 2009; Johnson & Neyman, 1936; Spiller et al., 2012). The Johnson-Neyman point for $p < .05$ occurs at 2.4350 for the APPR messages, indicating a significant quadratic association between skin tone and well-being for individuals with APPR messages above this cutoff (approximately one-third of the sample).

Summary. Only one significant quadratic interaction emerged for the three dependent variables assessed. APPR skin tone socialization messages moderated the quadratic association between skin tone and psychological well-being yielding different patterns as a function of APPR messages reported.

Aim 3: Socialization as mediators of skin tone and psychological adjustment.

To examine the mediating effect of general and skin tone racial socialization, I assessed whether the five general racial socialization variables, or the two types of skin tone socialization mediated the relation between skin tone and the three psychological outcomes. In each of the mediational analyses that were conducted, skin tone was the predictor, psychological adjustment (i.e., depressive symptoms, self-esteem, or psychological well-being) was the outcome, and either the five racial socialization variables, or the two skin tone socialization variables were examined as parallel or simultaneous mediators.

Depressive symptoms. Results did not support the necessary relationship for mediation in the model examining the five types of racial socialization as simultaneous mediators of the association between skin tone and depressive symptoms. The path from skin tone to CAL messages was significant, suggesting that participants with darker skin reported receiving more messages about their cultural legacy; however, none of the indirect effects of skin tone on depressive symptoms were significant (Table 5, Figure 7).

Attachment was negatively related to BIAS ($b = -.09, p = .01$) and positively related to APPR messages ($b = .27, p < .001$), but results did not support the indirect effect of skin tone on depressive symptoms through BIAS and APPR messages as all of the confidence intervals for the indirect effects of skin tone on depressive symptoms contained zero (Figure 8).

Self-esteem. In the models examining self-esteem, attachment ($b = .09, p = .005$) and age ($b = -.04, p = 0.03$), were positively and negatively related to cultural pride reinforcement messages (CPR), respectively, but the indirect effects of skin tone on self-esteem through the racial socialization subscales were nonsignificant (Table 6, Figure 9). Attachment was also related to BIAS ($b = -.09, p = .02$) and APPR ($b = .28, p < .001$), and the path from APPR

messages to self-esteem was significant ($b = .16, p = 0.03$), but the data did not support evidence of an indirect effect through skin tone racial socialization (Table 6, Figure 10).

Well-being. The indirect effects of skin tone on psychological well-being through racial socialization messages were nonsignificant (Table 7, Figure 11). In the skin tone socialization models, BIAS ($b = -.24, p = .007$), and APPR messages ($b = .14, p = .005$) were both related to psychological well-being but similar to the racial socialization model, the indirect effects of skin tone on psychological well-being were not explained by the skin tone socialization variables (Table 7, Figure 12).

Summary. While skin tone was found to be related to cultural appreciation legacy (CAL) messages, and the skin tone socialization variables (i.e., BIAS and APPR messages) were related to self-esteem and psychological well-being, evidence did not support the presence of mediated effects through racial socialization.

Aim 4: Moderated mediation models for skin tone and psychological adjustment.

The fourth aim of the study was to examine whether racial socialization would be a stronger or weaker mediator as a function of gender. Unfortunately, as the results did not support evidence of mediation (Aim 3), there was no evidence of moderated mediation (Tables 8 – 13).

DISCUSSION

The overarching aim of this study was to explore the association between skin tone and psychological adjustment outcomes, and in particular when and how the two are related among African American emerging adults. My first objective was to examine the nature of the association (e.g., curvilinear or not) between skin tone and psychological adjustment. My second objective was to examine if racial socialization experiences would moderate the association between skin tone and psychological adjustment. My third aim was to explore whether racial socialization explained the link between skin tone and psychological adjustment, and my fourth aim was to determine if explanations differed for males and females. I also engaged in some exploratory work in which I developed a two-subscale skin tone socialization measure and explored the role of skin tone socialization in changing and explaining the link between skin tone and psychological adjustment.

Study findings were mixed and generally modest, but demonstrated evidence of a curvilinear association between skin tone and psychological well-being in African American emerging adults. Of note, this curvilinear relationship depended on appreciation skin tone socialization messages. There was no evidence to support the second hypothesis that racial socialization messages changed the curvilinear relationships between skin tone and psychological adjustment. However, skin tone socialization, and BIAS messages in particular, appeared to exacerbate the link between skin tone and depressive symptoms, while appreciation skin tone messages appeared to shape the curvilinear association between skin tone and psychological well-being. The third hypothesis that racial socialization would mediate the

relationship between skin tone and psychological adjustment was not supported. As such, gender did not moderate the pathways among skin tone, socialization and psychological adjustment. While only a peripheral aspect of this study, the exploratory efforts of the study contribute to the knowledge in this field by providing a preliminary two-subscale measure of skin tone socialization and evidence that skin tone specific socialization is both related to skin tone and to psychological outcomes.

Aim 1: Skin Tone and Psychological Adjustment

I expected a curvilinear association between skin tone and psychological adjustment as indexed by depressive symptoms, self-esteem, and well-being. Accordingly, individuals who reported being either very light or very dark evidenced slightly less favorable well-being than those with moderate or medium skin tone. This finding offers some support for my hypothesis that individuals on the skin tone extremes might evidence poorer psychological health. Though the finding does not show a drastic difference in well-being for dark and light skin individuals relative to their medium-toned counterparts, the historical bias against darker-skinned individuals may contribute to such individuals more frequently being subjected to experiences that result in prolonged and strong negative emotional reactions like frustration, anger, or even self-doubt; this may be especially true at a younger age when individuals are building their identity and self-esteem. Indeed, prolonged negative emotions are a purported mechanism by which general and race-related stress impacts mental and physical health over time (Clark, Anderson, Clark, & Williams, 1999). For lighter skinned individuals, being identified as outgroup members may remove important in-group coping options and social support (e.g., processing with friends). For example, when discussing personal accounts of racial injustices with other African Americans, their experiences may be discounted. Another possibility is that lighter-skinned youth may not be

as accustomed to and prepared (by parents) for discriminatory experiences such that when these experiences occur, they are less able to process and react in an adaptive manner (Fegley et al., 2008). Furthermore, research suggests that medium toned individuals compared to lighter and darker individuals are most consonant in their skin tone preferences, meaning they are more likely to state that their ideal skin tone preference is closer to their actual skin tone (Fegley et al., 2008). Research among Black emerging adults also shows that medium skin tone is preferred (Coard et al., 2001); thus, more favorable mental well-being might seem to be a natural extension of “possessing” this preferred skin tone. The curvilinear finding was not observed among all outcome variables and may be due to the absence of an association between skin tone and the various outcome variables or the presence of other moderating variables such as racial or skin tone socialization messages.

Aim 2: Socialization as a Moderator of the Relationship Between Skin Tone and Psychological Adjustment

My second question was whether racial socialization experiences would moderate the relationship between skin tone and each of the psychological adjustment outcomes. I did not find evidence to support the presence of curvilinear relationships moderated by racial socialization messages. This lack of moderation may have been due to the fact that general racial socialization messages are not as directly relevant or influential in the context of experiences pertaining to skin tone. In other words, it may be that the relationship between skin tone and psychological adjustment is more dependent on messages whose explicit content invokes references to skin tone.

Along these lines, both types of skin tone socialization messages (BIAS and APPR messages) moderated linear and quadratic relationships between skin tone and psychological

adjustment. The linear interaction showed that for those who received high amounts of bias messages, there was a positive relationship such that depressive symptoms increased as individuals were darker. Secondly, for those who received low amounts of bias messages, there was a negative relationship such that depressive symptoms decreased as individuals were darker. Although the sample contained young men and women, these findings echo tenets of qualitative work demonstrating the detrimental psychological effects that darker-skinned women experience due to family socialization that emphasizes skin tone bias (e.g., being told not to date darker-skinned individuals) (Wilder & Cain, 2011). These results suggest that the potential impact of a particular kind of messages varies as a function of one's skin tone and that skin tone also shapes psychological experiences in tandem with the level of specific kinds of skin tone socialization youth may receive.

The moderated quadratic effect between skin tone and skin tone appreciation messages further supports the notion of skin tone socialization playing a role in the process by which skin tone impacts psychological outcomes. Medium toned individuals who received frequent appreciation messages appeared to have the best well-being in comparison to medium toned individuals who received fewer such messages as well as all light and dark individuals, regardless of message frequency. It may be that individuals on the extremes experience more discriminatory-related stress as a function of their skin tone so they cannot reap the benefits of appreciation messages as much as medium individuals. Some work has shown that medium skin tone is the most preferred among Blacks; thus, hearing appreciation messages might be consistent with medium skin individuals' life experiences whereas for individuals on the extremes, it may not be consistent with their experience. For example, a darker individual may be told by their mother that all skin tones are beautiful, but their experience is that they are being

mistreated for their skin tone, so they may find these messages hard to believe. Boykin and Tom's (1985) work may support this idea in that their work purports that parental messages around race often contradict messages youth receive from broader society. Because medium tone individuals may experience fewer contradictions in the messages they receive from both inter- and intra-racial interactions –because they are not too dark as to evoke as much bias as their darker counterparts, and not too light to be considered outgroup members by their fellow African Americans – they may be more readily able to reap the benefits of appreciation skin tone messages. Work examining if discrimination experiences (e.g., frequency of discrimination, type of discrimination such as blatant versus subtle or peer versus authority figure, etc.) vary by skin tone is needed.

Aim 3: Socialization as a Mediator of Relationship Between Skin Tone and Psychological Adjustment

My third question was whether racial socialization experiences mediated the relationship between skin tone and psychological adjustment. There was no evidence of either racial socialization or skin tone socialization mediating the relationships between skin tone and psychological adjustment outcomes. The lack of mediation may be due to the fact that racial and skin tone socializations truly do not explain or account for the relationship between skin tone and psychological adjustment. Racial socialization messages also may not be as relevant as skin tone socialization to the process of how skin tone is associated with psychological adjustment outcomes. However, skin tone messages also did not explain the relationship between skin tone and psychological adjustment. Perhaps a more appropriate mediator to consider would be the degree to which participants internalized or endorsed skin tone appreciation or bias values. Such an approach may be more developmentally appropriate given that participants were emerging

adults. While parental values are certainly foundational in influencing emerging adults' values (Barni, Alfieri, Marta, & Rosnati, 2013), emerging adults are also at a developmental stage where their level of internalization (or lack thereof) of parental values becomes a stronger predictor of their behavior and attitudes (Barry, Padilla-Walker, Nelson, 2012). It is also possible that the cross-sectional nature of this study limits the ability to observe mediation. Though they did not study psychological outcomes, Landor and colleagues (2013) found that skin tone predicted racial socialization in a longitudinal study among Black preteens. In the current cross-sectional study, I also found that skin tone was related to racial socialization, but a longitudinal study may be needed to observe longer term effects of skin tone and socialization on psychological adjustment.

It should also be noted that participants with darker skin reported receiving more messages about their cultural legacy; thus, the current study adds to the extant literature more evidence that parenting techniques – specifically, racial socialization – are tailored to such youth factors as skin tone, and demonstrates this effect of skin tone on parenting among an emerging adult sample (Hughes et al., 2006). Parents of darker-skinned youth may feel their youth need to hear more positive messages to counteract the negative mainstream messages they may receive about themselves. Cultural legacy messages likely function to interrupt the negative messages by emphasizing Black youths' connections to African royalty and a cultural of perseverance through slavery (e.g., Conrad, Dixon, & Zhang, 2009).

Aim 4: Gender as a Moderator of Mediational Links Among Skin Tone, Socialization, and Psychological Adjustment

My fourth question was whether the mediational relationships among skin tone, racial socialization, and psychological adjustment would differ for males and females. There was not

evidence to support a moderated mediation effect. Thomas and Blackmon (2015) found that the shooting of Trayvon Martin prompted many parents to express their concerns specifically for their sons and discuss ways to protect themselves and appear less threatening to other ethnic groups. Coupled with Landor and colleagues (2013) finding that compared to lighter-skinned males, darker-skinned males reported receiving more racial socialization around mistrust of other ethnic groups, it is curious that the pathway – or rather lack thereof – from skin tone to socialization was not moderated by gender. Methodologically, there may have been a power issue given that Landor and colleagues (2013) found their effect among a sample of nearly 800 African American youth. A conceptual reason for the lack of a moderated mediation effect in the current study could be that the effect depends on the message type. Landor et al. found their effect for a specific type of message – racial mistrust – that was not measured in this study, but did not find an effect for messages that more closely resembled those examined in this study. Thus, there may truly not be a relationship among the constructs examined.

Study Limitations and Future Directions

The current study adds important information to the literature such as: 1) the importance of considering curvilinear impacts of skin tone; and 2) the knowledge that some youth are more vulnerable to the impact of skin tone on their psychological health, but that parenting techniques, above and beyond parenting quality of the relationship, can mitigate this risk; and 3) that skin tone socialization is a unique aspect of racial socialization that should be given more attention. However, this study is not without limitations. This was a well-adjusted sample and no one was in the poor psychological health range. Though it is not always so easy to disentangle methodological issues from conceptual issues, I discuss each of these in turn.

Methodological limitations and future directions. First, the statistical models were complex and may have been underpowered; thus, increasing the sample size of the study would be needed before mediation and moderated mediation effects should be ruled out. Second, the study utilized an online data collection method. While this method increased the rate at which data were collected – for females – it impeded the ability to observe participants’ skin tones.

Third, the current study collected retrospective reporting of messages that youth had received across their lifetime, which lends itself to memory biases. A longitudinal design with bursts of data collected along the way would be ideal in revealing how skin tone, socialization, and psychological outcomes are related transituationally and within specific situations. Fourth, the sample contained a sizeable amount of individuals from other Black ethnic groups, and there may have been differences in how those participants related to and interpreted questions about racial socialization in particular. In the future, scholars should explore the various racial socialization experiences of not only African Americans, but also African and Caribbean immigrants to the United States.

Conceptual limitations. First, skin tone was a self-reported construct in this study. Self-reported skin tone may be part of the reason for the curvilinear relationship with well-being. Individuals who see themselves on the extreme – whether they are or are not – may have poorer well-being. Fegley et al. (2008) found evidence that medium toned individuals tended to have more consonant skin tones preferences and that those with consonant preferences tended to have better personal and academic outcomes. Thus, this study could be enhanced by utilizing both self- and observer-reported skin tone. Second, I did not control for variables such as physical attractiveness or other features often associated with skin tone in the cultural psyche such as hair texture and the degree of other Africentric features (e.g., width of nose, thickness of lips) (Boyd-

Franklin, 1991; Okazawa-Rey, Robinson, & Ward, 1987). All of these features together make up individuals phenotype and contribute to whether individuals are seen as more Africentric or more Eurocentric, in turn influencing how they are perceived by their environment. Future work should incorporate these features.

Third, other socializing agents (e.g., peers, coaches, pastors, teachers, police officers, etc.) may be influential during emerging adulthood and scholars should begin developing theories about how the processes of socialization look across different socializing agents. Fourth, the covariate parental attachment quality was significant in all analyses suggesting that researchers should continue exploring the ways in broader parenting and race-specific parenting techniques overlap and differ, and the significance of these comparisons for psychological outcomes. Fifth, I may not have found as many relationships between skin and my outcomes because of the nature of the outcomes I examined. Perhaps other outcomes – more relationally or interpersonally focused – such as the quality of one’s relationships with peers, family, professors, employers, or authority figures would begin to show more variance in experiences across the skin tone spectrum. Sixth, I identify as a light-skinned African American woman, and my perspective on how skin tone is related to psychological adjustment is very much shaped by my experience as such. This work should continue to be undertaken by scholars across the skin tone spectrums.

Clinical Implications

Skin tone socialization as compared to more general racial socialization appears to be important in how the key variables were linked in at least relationships between skin tone and psychological adjustment – particularly, depressive symptoms and well-being; thus, encouraging parents to be mindful of the messages they give their children around skin tone and not just race are important – especially given the lasting impact that these messages have on individuals

across their life span (Wilder & Cain, 2011). The curvilinear relationship observed between skin tone and well-being somewhat supports the notion that both those with very dark and very light skin encounter difficulties related to their skin tone. The finding suggests it would be helpful to include in the discourse around skin tone bias, experiences of lighter skinned individuals. That is not to say that darker skinned and lighter skinned individuals bear the same weight of the bias, but only that there should be work to dispel bias against individuals of all shades.

This work also shows the differential impact of skin tone messages for individuals along the skin tone spectrum, and suggests that individuals have different psychological needs to be met. Perhaps, parent psychoeducation groups could assist parents in identifying those needs for their own children, or in building confidence in their ability to identify their needs. Such groups could be expanded into treatment such that parents learn how to help their youth emotionally process negative experiences related to their skin tone. Thomas and Blackmon (2015) identified that parents were engaging in emotional processing of direct and vicarious racial traumas with their youth. Perhaps principles (e.g., psychoeducation and parenting skills, emotional and cognitive coping, trauma narrative processing, and safety planning) from evidenced-based trauma treatments such as trauma-focused cognitive behavioral therapy (TF-CBT; Cohen & Mannarino, 2008) could be useful in guiding parents or community leaders in this endeavor. Church leaders or campus student group leaders could be trained by clinicians in basic principles and techniques of TF-CBT to help emerging adults to process the direct and vicarious skin tone and racial traumas they have experienced or witnessed/been made aware of through observation or media.

Though not without critique, two documentary-style films were released in the past two years focusing on the experiences of darker-skinned girls ("Dark Girls," Duke & Berry, 2011) and lighter-skinned girls ("Light Girls," Duke, 2015). From an intra-racial relations perspective,

showing these films or exploring the topics raised in them in safe spaces such as small psychotherapy groups for African Americans could be helpful. It may make for a safer space to have African American clinically-trained co-leaders (perhaps one very dark and one very light) to facilitate the groups to help the participants engage in respectful discourse, meaning making, and healing around traumas related to skin tone bias. Indeed, psychotherapy groups addressing these issues already exist for Black women (Boyd-Franklin, 1991). These small groups could be packaged to be facilitated in community or church settings as well. From both an intra- and inter-racial relations perspective, information about the antebellum origins of skin tone bias, the ongoing impact of that bias, and the role that bias can play in different settings (e.g., considering a lighter-skinned patient or student more credible) can be explicitly imbedded into annual ethics trainings among health (e.g., clinicians) and education providers (e.g., teachers). This would also be helpful knowledge for clinicians to help them to not pathologize their Black patients who endorse skin tone biases.

The linear interaction observed between skin tone and skin tone bias messages suggests that parents of darker-skinned youth should be particularly careful not to communicate messages filled with bias against skin tone. Parents should be provided with psychoeducation around the impact of such messages on depressive symptoms. Negatively biased messages to their darker-skinned youth serve to pass on normative ideologies about skin tone, instead of opposing them. Wilder and Cain (2011) provide evidence of the enduring, harmful impact of color ideologies being passed on, and how families taking an oppositional stance in which they challenge normative skin tone ideologies can instill pride in individuals.

Conclusion

This study shows the importance of considering skin tone specific messages. Racial socialization messages did not change (moderate) or explain (mediation) any relationships between skin tone and psychological adjustment, but skin tone messages did. This pattern suggests that the field of racial socialization in its current state should extend beyond general racial socialization to capture all the racial experiences of African American youth. Also, much of the quantitative work that examines skin tone focuses on life outcomes such as socioeconomic status and marriage status, whereas it is the qualitative work that introduces themes of socialization around race and how socialization impacts psychological outcomes. This study was an early initial step and a much needed effort to examine emergent themes from qualitative work in a quantitative approach.

Table 1

Means, Standard Deviations, and Correlations Among Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Skin Tone	-															
2. Gender	.11	-														
3. Age	.05	.20**	-													
4. Maternal Education	-.03	.04	-.15	-												
5. Paternal Education	-.05	.05	-.13	.51	-											
6. Attachment	-.02	-.15*	.07	-.06	-.10	-										
7. CCA	.13	.03	-.10	.06	.05	.00	-									
8. CPR	.04	.02	-.12	.14*	.11	.19*	.63**	-								
9. CAL	.15*	.08	-.10	.15*	.21**	.04	.58**	.62**	-							
10. CAD	.10	.04	-.04	.12	.13	-.07	.53**	.55*	.61**	-						
11. EM	.02	.13	-.10	.17*	.16*	-.08	.44**	.32**	.33**	.33**	-					
12. BIAS	-.06	.02	.01	.02	.04	-.18*	.26**	.11	.07	.13	.24**	-				
13. APPR	.04	-.12	.01	.03	.00	.31**	.35**	.44**	.42**	.26**	.13	.18*	-			
14. Depressive Symptoms	.06	-.09	.01	.04	.08	-.28**	.16*	.05	.07	.06	.10	.06	-.11	-		
15. Self-esteem	-.09	.01	.05	-.03	-.09	.41**	.01	.09	.02	-.02	-.08	-.06	.27**	-.38**	-	
16. Well-being	-.00	-.11	.02	-.10	-.17	.45**	.01	.15*	.02	.09	-.07	-.22**	.26**	-.40**	.65**	-
Mean	56.14	-	20.3	4.70	4.40	3.74	1.91	2.49	2.08	2.19	1.30	1.24	2.14	1.02	2.30	3.67
SD	18.29	-	1.58	1.51	1.86	.79	.47	.35	.55	.58	.34	.36	.67	.36	.58	.47

* $p < .05$, ** $p < .01$.

Table 2

Pattern and Structure Matrix for PCA with Oblimin Rotation of Two Factor Solution of Skin Tone Socialization Items

Item	Pattern coefficients		Structure coefficients		Communalities	Component Matrix (Unrotated)	
	Component 1	Component 2	Component 1	Component 2		Component 1	Component 2
1. LS better	.790	-.058	.780	.086	.611	.765	-.160
3. DS more authentic	.772	-.059	.761	.082	.466	.751	-.094
4. LS believe better	.755	.007	.757	.145	.582	.747	-.159
11. Treated negatively	.724	.023	.728	.155	.573	.725	-.075
13. Unattractive	.724	-.022	.720	.110	.366	.711	-.117
2. DS better	.693	-.084	.677	.042	.324	.660	-.173
8. Over-baked	.606	.141	.632	.251	.682	.644	.053
5. Stop playing in sun	.601	.019	.605	.128	.418	.602	-.062
6. Do not date/marry	.578	-.069	.565	.036	.710	.577	.216
12. Attractive	.489	.296	.543	.385	.531	.551	-.142
9. Beautiful	-.113	.856	.043	.835	.531	.155	.828
7. Beautiful shades	-.052	.834	.100	.824	.379	.209	.799
10. Treated positively	.141	.690	.266	.715	.519	.354	.637

Note: major loadings for each item are bolded.

LS = Lighter-skinned individuals; DS = Darker-skinned individuals

Table 3

Regression Coefficients for Curvilinear and Moderated Curvilinear Models for Each Outcome

	Depressive Symptoms	Self-esteem	Well-being
STEP 1			
Sex	-.102 (.054)+	.068 (.085)	-.054 (.065)
Age	.010 (.018)	.008 (.028)	.000 (.021)
Maternal Education	.004 (.021)	.006 (.031)	-.002 (.024)
Paternal Education	.010 (.017)	-.017 (.026)	-.032 (.020)
Attachment	-.136 (.034)***	.302 (.052)***	.254 (.041)***
R ²	.099**	.172***	.223***
STEP 2			
Skin Tone	.002 (.001)	-.003 (.002)	.000 (.002)
R ²	.105	.181	.223
ΔR ²	.006	.009	.000
STEP 3			
Skin Tone ²	.000 (.000)	.000 (.000)	.000 (.000)**
R ²	.118	.183	.253
ΔR ²	.013	.002	.030***
STEP 4			
CAD	-.054 (.061)	.010 (.099)	.136 (.075)+
EM	.078 (.090)	-.098 (.142)	.008 (.109)
CCA	.118 (.081)	.024 (.130)	-.121 (.097)
CAL	.027 (.069)	-.003 (.111)	-.039 (.084)
CPR	.014 (.113)	.061 (.179)	.126 (.134)
R ²	.151	.186	.280
ΔR ²	.033	.004	.027
STEP 5			
SkTxCAD	-.005 (.003)+	.004 (.005)	.009 (.004)*
SkTxEM	.008 (.004)+	-.004 (.007)	-.002 (.005)
SkTxCCA	.002 (.005)	-.008 (.007)	.000 (.005)
SkTxCAL	.003 (.004)	-.006 (.007)	-.008 (.005)
SkTxCPR	-.003 (.005)	.014 (.009)	-.003 (.006)
R ²	.187	.209	.308
ΔR ²	.036	.022	.028
STEP 6			
SkT ² xCAD	.000 (.000)	.000 (.000)	.000 (.000)
SkT ² xEM	.000 (.000)	.000 (.000)	.000 (.000)
SkT ² xCCA	.000 (.000)	.000 (.000)	.000 (.000)
SkT ² xCAL	.000 (.000)	.000 (.000)	.000 (.000)+
SkT ² xCPR	.000 (.000)	.000 (.000)	.000 (.000)
R ²	.218	.222	.348
ΔR ²	.031	.014	.040+

Note: CAD = Cultural Alertness to Discrimination; EM = Emphasis on Mainstream; CCA = cultural coping with antagonism; CAL = cultural appreciation of legacy; CPR = cultural pride reinforcement; SkT=skin tone; SkT² = skin tone squared

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

<i>Regression Coefficients for Curvilinear and Moderated Curvilinear Models for Each Outcome</i>			
	Depressive Symptoms	Self-esteem	Well-being
STEP 1			
Sex	-.099 (.054)+	.069 (.085)	-.055 (.066)
Age	.012 (.018)	.009 (.028)	.000 (.021)
Maternal Education	.004 (.021)	.008 (.032)	-.001 (.025)
Paternal Education	.010 (.017)	-.017 (.026)	-.032 (.020)
Attachment	-.137 (.034)***	.301 (.053)***	.254 (.041)***
R ²	.099**	.171***	.221***
STEP 2			
Skin Tone	.002 (.001)	-.003 (.002)	.000 (.002)
R ²	.106	.180	.221
ΔR^2	.007	.009	.000
STEP 3			
Skin Tone ²	.000 (.000)	.000 (.000)	.000 (.000)*
R ²	.118	.182	.252
ΔR^2	.012	.002	.030*
STEP 4			
BIAS	.053 (.077)	-.069 (.118)	-.209 (.091)*
APPR	-.046 (.043)	.171 (.067)*	.129 (.051)*
R ²	.125	.213	.291
ΔR^2	.007	.031*	.039*
STEP 5			
SkTxBIAS	.010 (.003)**	-.009 (.005)+	.001 (.004)
SkTxAPPR	-.001 (.002)	.001 (.004)	.001 (.003)
R ²	.175	.226	.292
ΔR^2	.050**	.013	.001
STEP 6			
SkT ² xBIAS	.000 (.000)	.000 (.000)	.000 (.000)
SkT ² xAPPR	.000 (.000)	.000 (.000)+	.000 (.000)+
R ²	.190	.247	.334
ΔR^2	.015	.021	.042**

Note: BIAS = Skin tone bias messages; APPR = Skin tone appreciation messages; SkT=Skin tone; SkT² = Skin tone squared

+ $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 5

Indirect Effects of Skin Tone on Depressive Symptoms through Racial and Skin Tone Socialization.

Mediator	Estimate	SE	BC 95% CI	
			Lower	Upper
Racial Socialization				
Mediators				
CCA	.0005	.0004	-.0001	.0015
CPR	.0000	.0002	-.0005	.0004
CAL	.0000	.0003	-.0006	.0006
CAD	-.0001	.0003	-.0008	.0002
EM	.0000	.0002	-.0003	.0005
Total Indirect Effect	.0004	.0005	-.0005	.0014
Skin Tone				
Socialization				
Mediators				
BIAS	.0000	.0002	-.0004	.0007
APPR	-.0001	.0002	-.0006	.0002
Total Indirect Effect	-.0001	.0003	-.0006	.0006

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; CAD = Cultural Alertness to Discrimination; EM = Emphasis on Mainstream; CCA = cultural coping with antagonism; CAL = cultural appreciation of legacy; CPR = cultural pride reinforcement; BIAS = Skin tone bias messages; APPR = Skin tone appreciation messages

Table 6

Indirect Effects of Skin Tone on Self-esteem through Racial and Skin Tone Socialization.

Mediator	Estimate	SE	BC 95% CI	
			Lower	Upper
Racial Socialization				
Mediators				
CCA	.0001	.0005	-.0009	.0013
CPR	.0001	.0003	-.0006	.0009
CAL	.0000	.0005	-.0009	.0010
CAD	.0000	.0004	-.0009	.0008
EM	.0000	.0003	-.0007	.0005
Total Indirect Effect	.0001	.0006	-.0010	.0015
Skin Tone				
Socialization				
Mediators				
BIAS	.0001	.0003	-.0007	.0007
APPR	.0004	.0005	-.0005	.0013
Total Indirect Effect	.0005	.0006	-.0007	.0015

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; CAD = Cultural Alertness to Discrimination; EM = Emphasis on Mainstream; CCA = cultural coping with antagonism; CAL = cultural appreciation of legacy; CPR = cultural pride reinforcement; BIAS = Skin tone bias messages; APPR = Skin tone appreciation messages

Table 7

Indirect Effects of Skin Tone on Well-being through Racial and Skin Tone Socialization.

Mediator	Estimate	SE	BC 95% CI	
			Lower	Upper
Racial Socialization Mediators				
CCA	-.0002	.0004	-.0010	.0005
CPR	.0001	.0003	-.0004	.0010
CAL	-.0003	.0004	-.0012	.0003
CAD	.0004	.0004	-.0003	.0015
EM	.0000	.0002	-.0004	.0005
Total Indirect Effect	.0000	.0005	-.0009	.0012
Skin Tone Socialization Mediators				
BIAS	.0004	.0006	-.0004	.0019
APPR	.0003	.0004	-.0005	.0012
Total Indirect Effect	.0007	.0006	-.0003	.0021

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; CAD = Cultural Alertness to Discrimination; EM = Emphasis on Mainstream; CCA = cultural coping with antagonism; CAL = cultural appreciation of legacy; CPR = cultural pride reinforcement; BIAS = Skin tone bias messages; APPR = Skin tone appreciation messages

Table 8

Effects of Skin Tone on Depressive Symptoms through Racial Socialization by Gender.

Direct Effect								
	Effect	SE	t		p	LLCI	UCLI	
	.0009	.0015	.6208		.5356	-.0020	.0038	
Conditional Effect								
		Females			Males			
			BC 95% CI				BC 95% CI	
Mediator	Effect	SE	Lower	Upper	Effect	SE	Lower	Upper
CCA	.0002	.0005	-.0010	.0011	.0008	.0006	-.0001	.0023
CPR	.0000	.0003	-.0007	.0005	.0000	.0003	-.0005	.0008
CAL	.0000	.0003	-.0006	.0005	.0000	.0004	-.0008	.0008
CAD	-.0001	.0003	-.0010	.0004	-.0002	.0003	-.0009	.0003
EM	.0000	.0002	-.0006	.0004	.0001	.0004	-.0006	.0011
Index of Moderated Mediation								
			BC 95% CI					
Mediator	Index	SE	Lower	Upper				
CCA	.0006	.0008	-.0004	.0025				
CPR	.0000	.0004	-.0006	.0011				
CAL	.0000	.0003	-.0006	.0007				
CAD	-.0001	.0004	-.0010	.0007				
EM	.0001	.0006	-.0008	.0015				

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; CAD = Cultural Alertness to Discrimination; EM = Emphasis on Mainstream; CCA = cultural coping with antagonism; CAL = cultural appreciation of legacy; CPR = cultural pride reinforcement

Table 9

Effects of Skin Tone on Depressive Symptoms through Skin Tone Socialization by Gender.

Direct Effect								
	Effect	SE	t		p	LLCI	UCLI	
	.0015	.0015	1.0178		.3102	-.0014	.0044	
Conditional Effect								
		Females			Males			
			BC 95% CI				BC 95% CI	
Mediator	Effect	SE	Lower	Upper	Effect	SE	Lower	Upper
BIAS	.0000	.0002	-.0004	.0004	-.0001	.0004	-.0005	.0011
APPR	-.0002	.0003	-.0009	.0004	.0000	.0002	-.0004	.0004
Index of Moderated Mediation								
			BC 95% CI					
Mediator	Index	SE	Lower	Upper				
BIAS	.0000	.0004	-.0006	.0012				
APPR	.0002	.0004	-.0005	.0011				

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; BIAS = Skin tone bias messages; APPR = Skin tone appreciation messages

Table 10

Effects of Skin Tone on Self-esteem through Racial Socialization by Gender.

Direct Effect								
	Effect	SE	t		p	LLCI	UCLI	
	-.0030	.0023	-1.3223		.1879	-.0076	.0015	
Conditional Effect								
		Females			Males			
		BC 95% CI			BC 95% CI			
Mediator	Effect	SE	Lower	Upper	Effect	SE	Lower	Upper
CCA	.0000	.0005	-.0008	.0014	.0001	.0006	-.0011	.0016
CPR	.0001	.0005	-.0008	.0013	.0000	.0004	-.0008	.0010
CAL	.0000	.0005	-.0010	.0010	.0000	.0005	-.0010	.0011
CAD	.0000	.0005	-.0011	.0011	.0000	.0005	-.0010	.0010
EM	.0001	.0004	-.0006	.0011	-.0001	.0006	-.0016	.0009
Index of Moderated Mediation								
		BC 95% CI						
Mediator	Index	SE	Lower	Upper				
CCA	.0001	.0006	-.0014	.0015				
CPR	.0000	.0006	-.0014	.0013				
CAL	.0000	.0004	-.0010	.0008				
CAD	.0000	.0005	-.0011	.0012				
EM	-.0003	.0008	-.0024	.0010				

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; CAD = Cultural Alertness to Discrimination; EM = Emphasis on Mainstream; CCA = cultural coping with antagonism; CAL = cultural appreciation of legacy; CPR = cultural pride reinforcement

Table 11

Effects of Skin Tone on Self-esteem through Skin Tone Socialization by Gender.

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Direct Effect								
	Effect	SE	t	p	LLCI	UCLI		
	-.0034	.0022	-1.5228	.1297	-.0078	.0010		
Conditional Effect								
		Females			Males			
		BC 95% CI			BC 95% CI			
Mediator	Effect	SE	Lower	Upper	Effect	SE	Lower	Upper
BIAS	.0000	.0002	-.0003	.0007	.0002	.0005	-.0011	.0009
APPR	.0010	.0008	-.0003	.0029	-.0001	.0007	-.0018	.0013
Index of Moderated Mediation								
		BC 95% CI						
Mediator	Index	SE	Lower	Upper				
BIAS	.0002	.0005	-.0013	.0009				
APPR	-.0012	.0012	-.0038	.0007				

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; BIAS = Skin tone bias messages; APPR = Skin tone appreciation messages

Table 12

Effects of Skin Tone on Well-being through Racial Socialization by Gender.

Direct Effect								
	Effect	SE	t		p	LLCI	UCLI	
	-.0005	.0018	-.2584		.7964	-.0039	.0030	
Conditional Effect								
		Females			Males			
			BC 95% CI				BC 95% CI	
Mediator	Effect	SE	Lower	Upper	Effect	SE	Lower	Upper
CCA	-.0001	.0004	-.0010	.0007	-.0003	.0005	-.0015	.0005
CPR	.0002	.0005	-.0007	.0014	.0000	.0004	-.0007	.0012
CAL	-.0003	.0004	-.0014	.0004	-.0003	.0004	-.0014	.0003
CAD	.0004	.0007	-.0009	.0020	.0005	.0005	-.0003	.0016
EM	.0001	.0003	-.0004	.0007	.0000	.0003	-.0007	.0005
Index of Moderated Mediation								
			BC 95% CI					
Mediator	Index	SE	Lower	Upper				
CCA	-.0002	.0006	-.0018	.0007				
CPR	-.0002	.0006	-.0014	.0012				
CAL	.0000	.0004	-.0010	.0009				
CAD	.0001	.0008	-.0015	.0018				
EM	-.0001	.0004	-.0011	.0007				

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; CAD = Cultural Alertness to Discrimination; EM = Emphasis on Mainstream; CCA = cultural coping with antagonism; CAL = cultural appreciation of legacy; CPR = cultural pride reinforcement

Table 13

Effects of Skin Tone on Well-being through Skin Tone Socialization by Gender.

Direct Effect								
	Effect	SE	t		p	LLCI	UCLI	
	-.0012	.0017	-.6746		.5009	-.0045	.0022	
Conditional Effect								
		Females			Males			
			BC 95% CI				BC 95% CI	
Mediator	Effect	SE	Lower	Upper	Effect	SE	Lower	Upper
BIAS	.0002	.0004	-.0007	.0010	.0006	.0010	-.0009	.0032
APPR	.0009	.0007	-.0001	.0025	-.0001	.0006	-.0014	.0010
Index of Moderated Mediation								
			BC 95% CI					
Mediator	Index	SE	Lower	Upper				
BIAS	.0004	.0011	-.0012	.0031				
APPR	-.0010	.0009	-.0031	.0005				

Note: Based on 1,000 bootstrap samples. BC = bias corrected; CI = confidence interval; BIAS = Skin tone bias messages; APPR = Skin tone appreciation messages

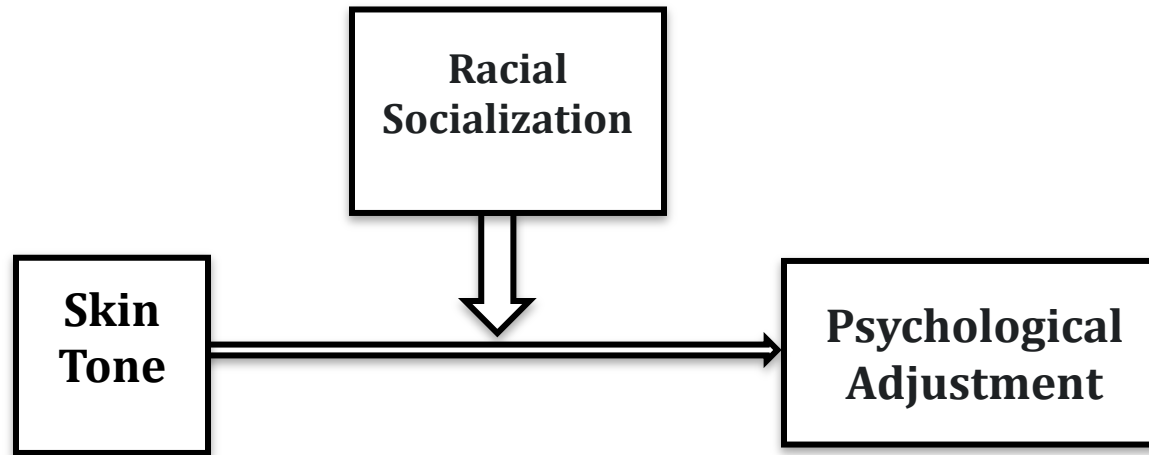


Figure 1. Racial socialization moderation model.

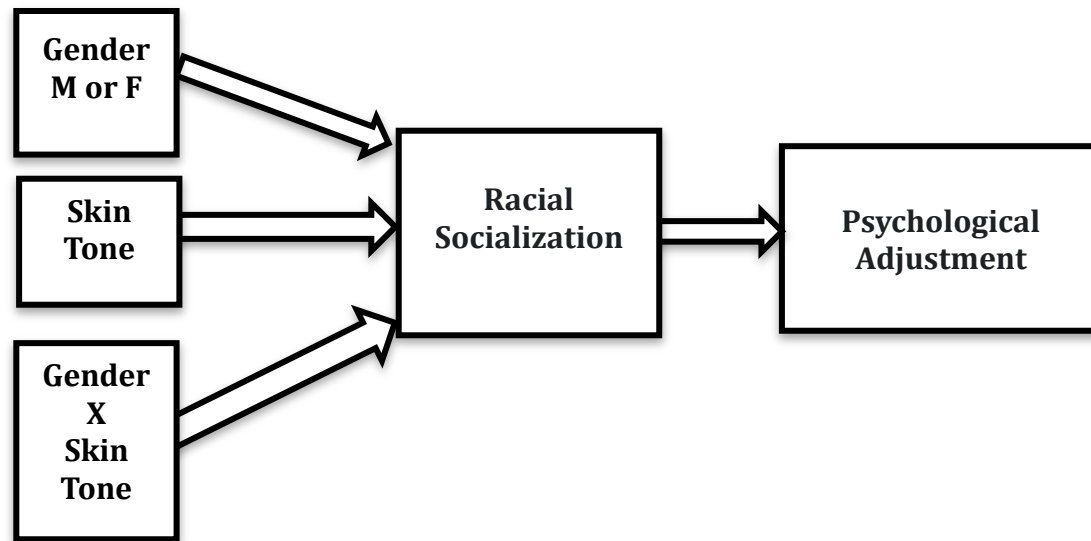


Figure 2. Moderated mediation model.

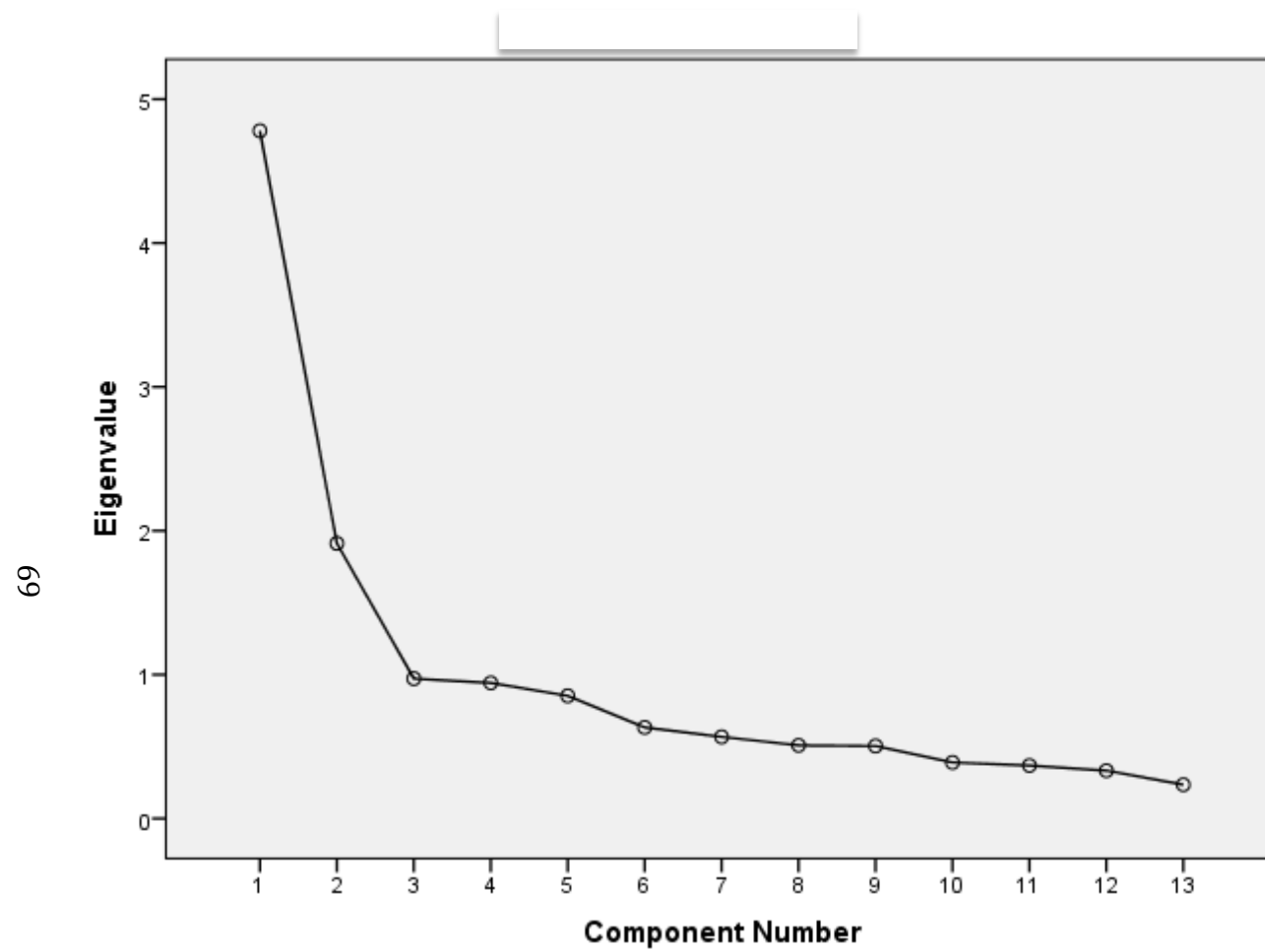


Figure 3. Scree plot for skin tone socialization measure components.

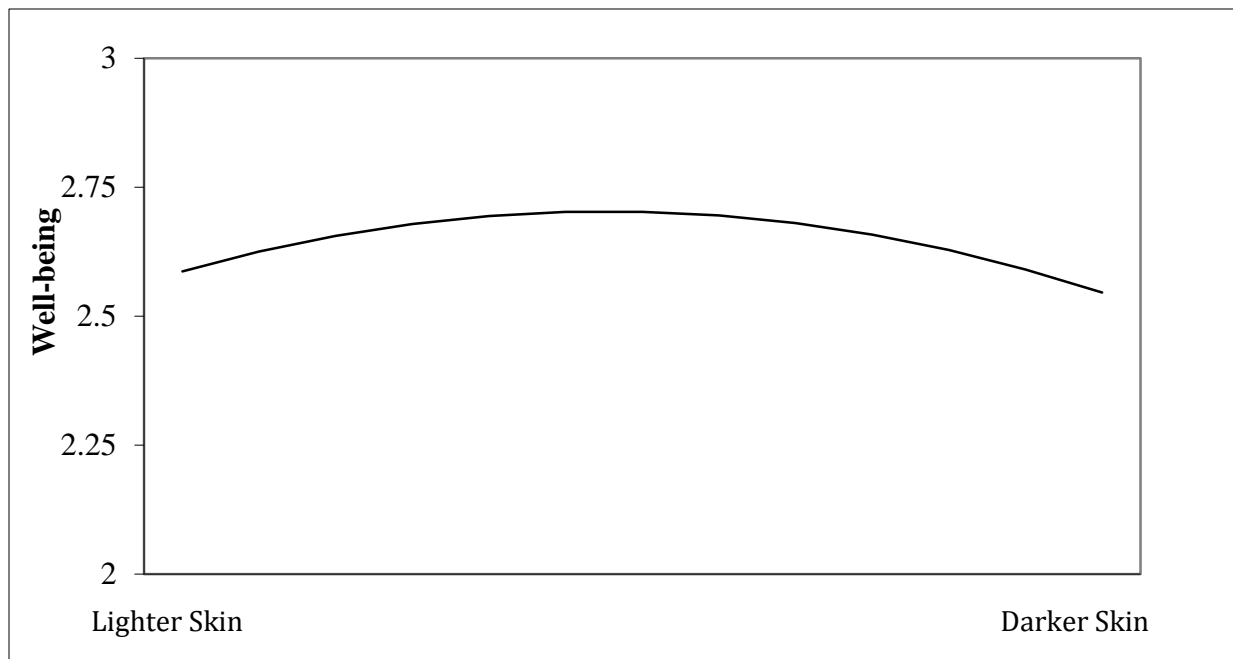


Figure 4. Curvilinear relationship between skin tone and well-being.

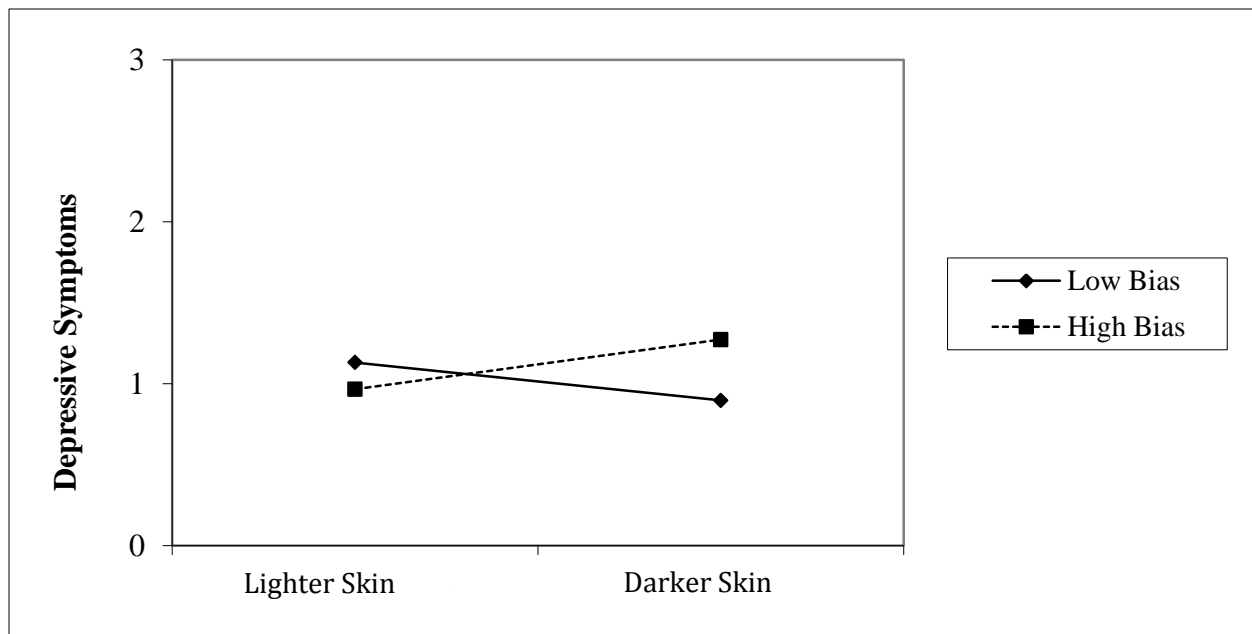


Figure 5. The interaction between skin tone and bias messages on depressive symptoms.

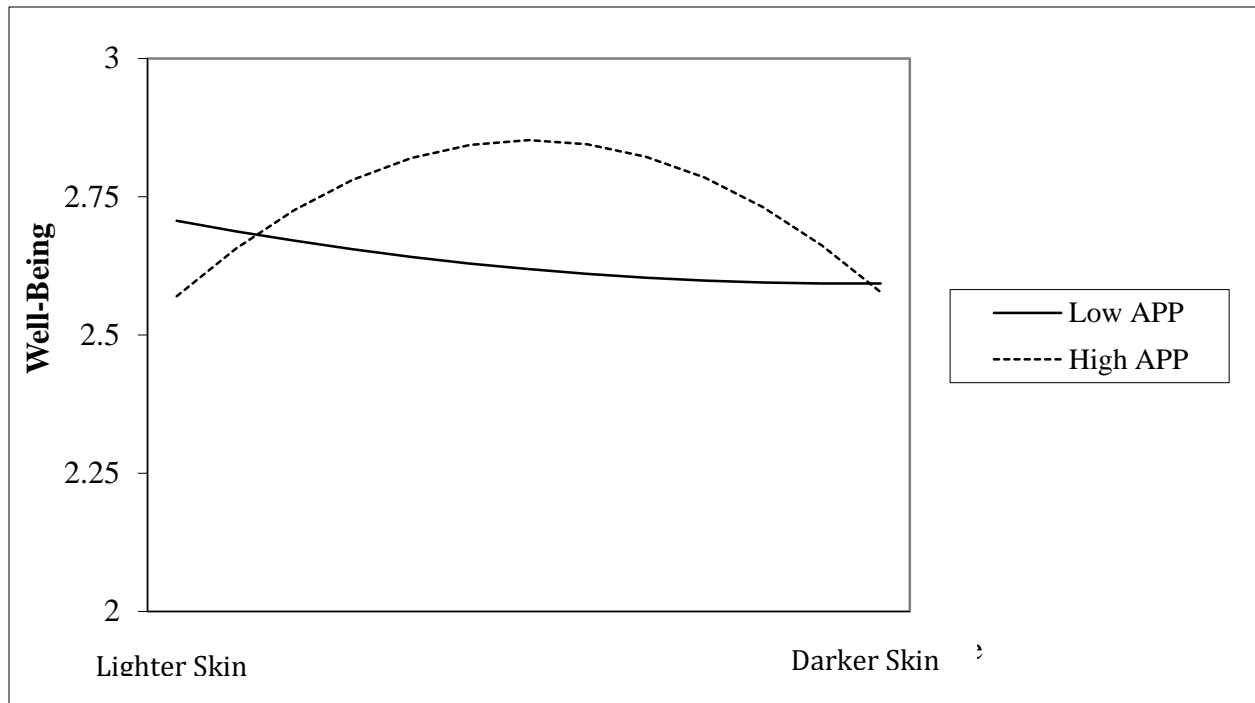


Figure 6. Curvilinear relationship between skin tone and well-being moderated by appreciation messages.

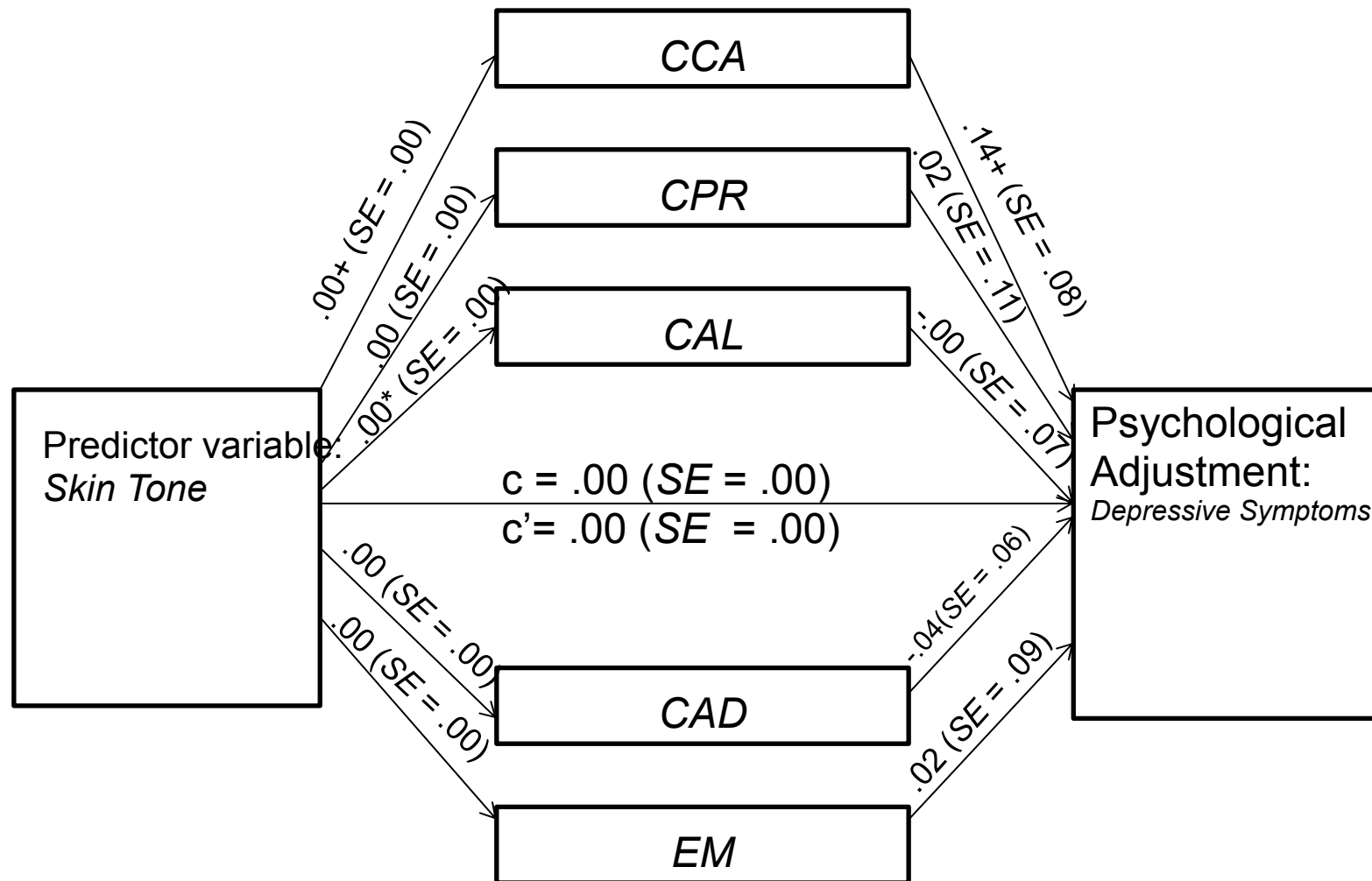


Figure 7. Racial socialization mediation pathways for depressive symptoms.
 $+p < .10$

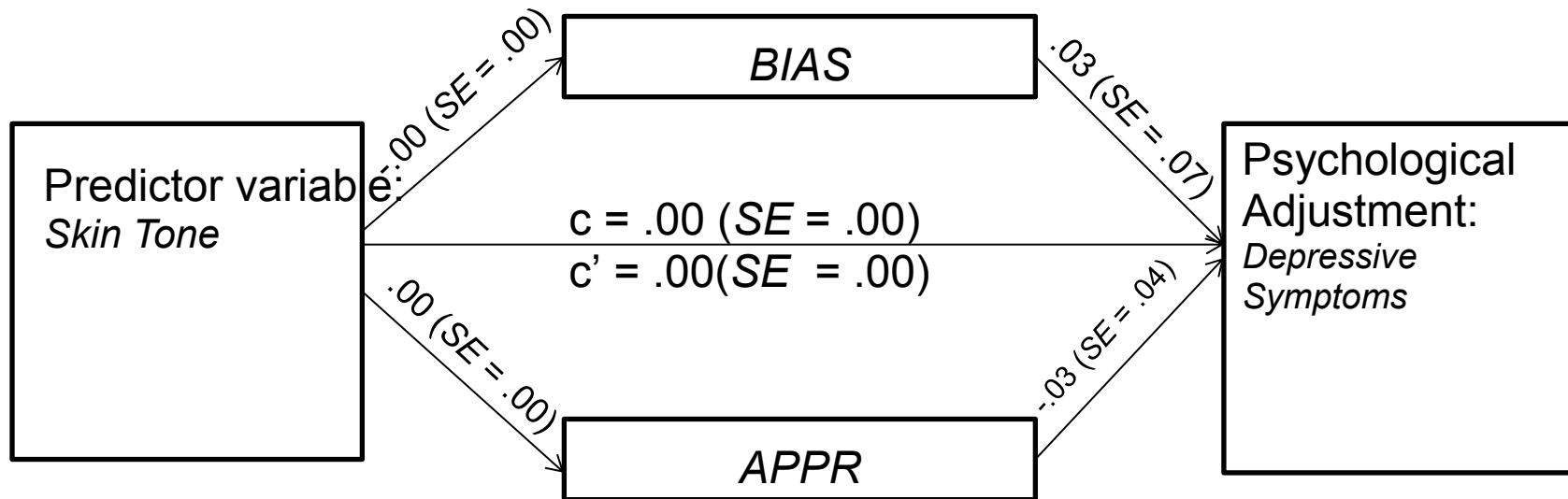


Figure 8. Skin tone socialization mediation pathways for depressive symptoms.

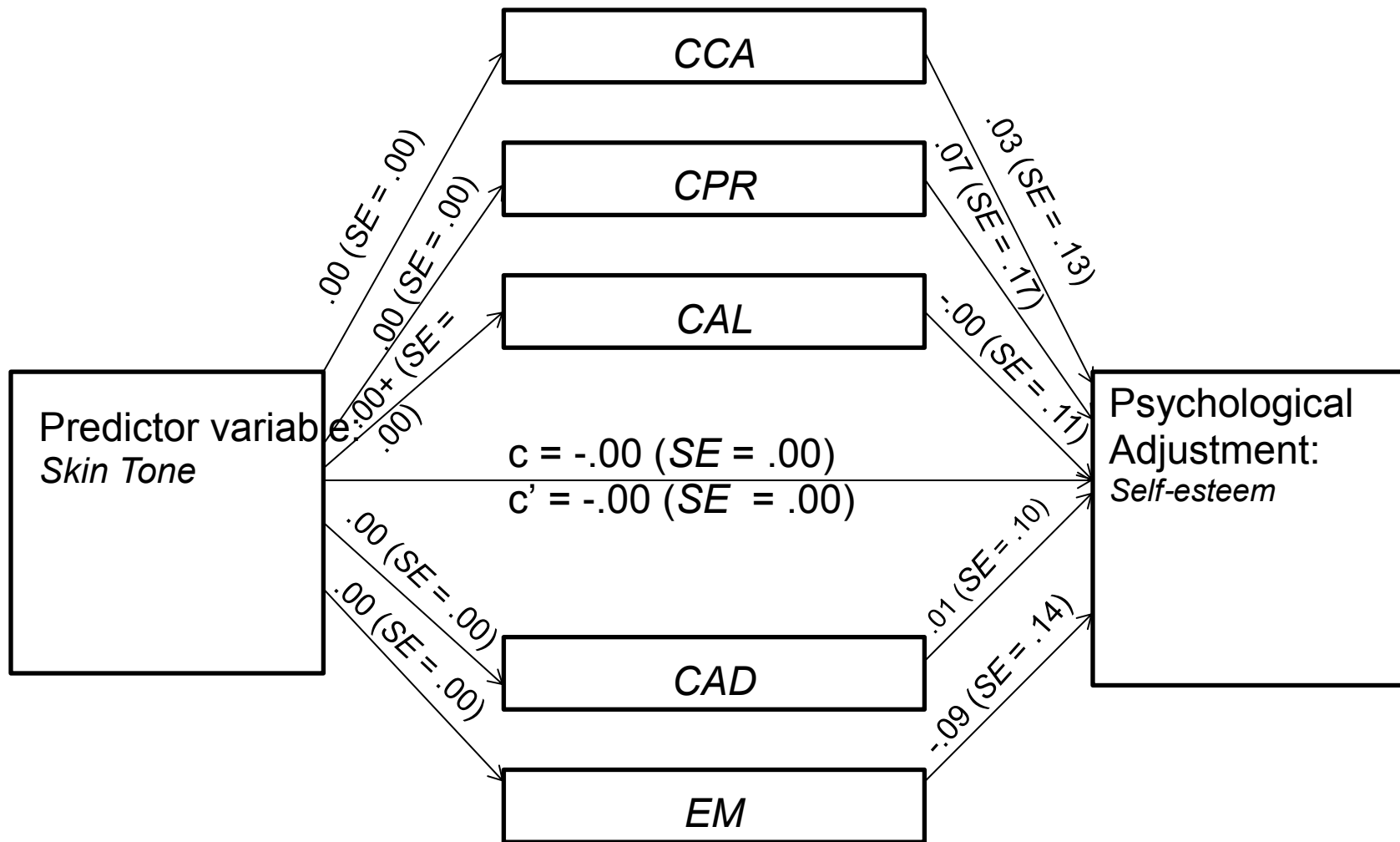


Figure 9. Racial socialization mediation pathways for self-esteem.
+ $p < .10$

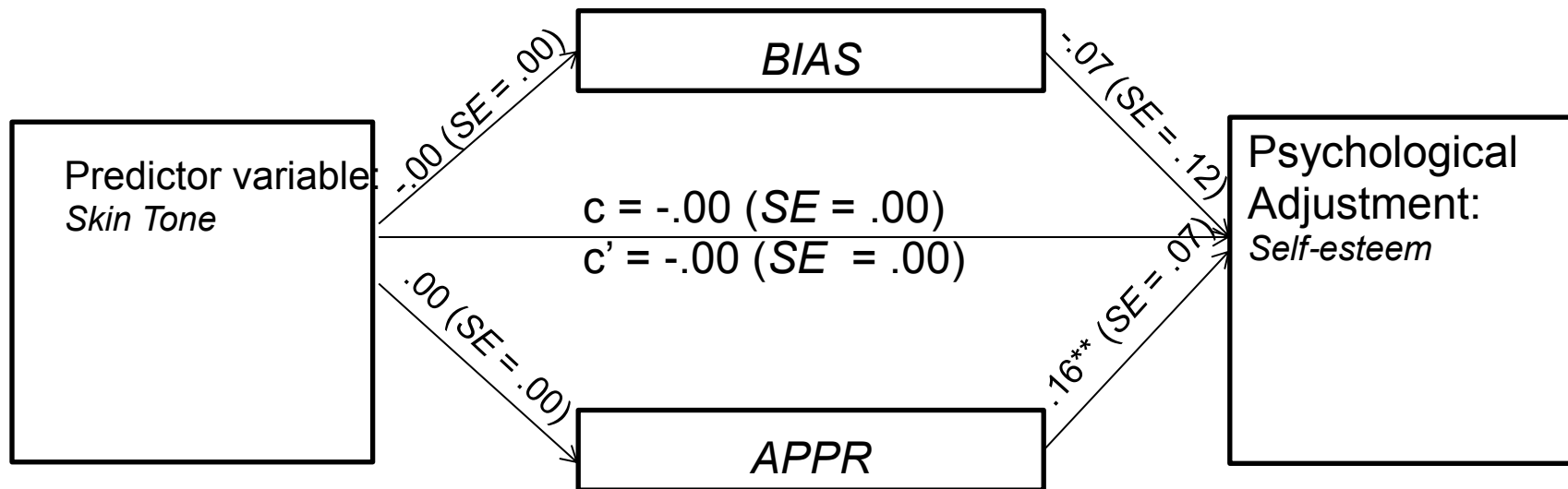


Figure 10. Skin tone socialization mediation pathways for self-esteem.

* $p < .05$

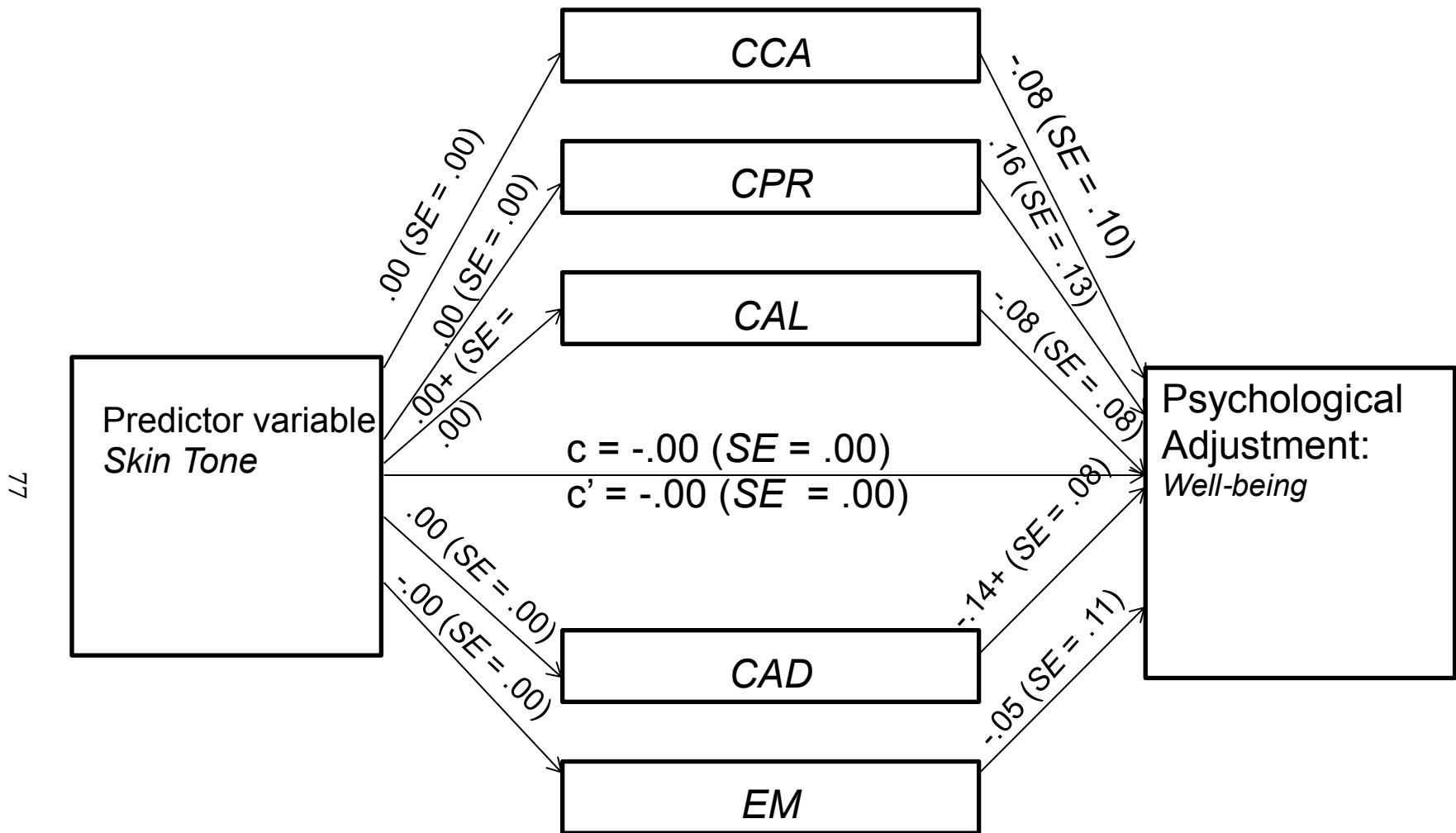


Figure 11. Racial socialization mediation pathways for well-being.

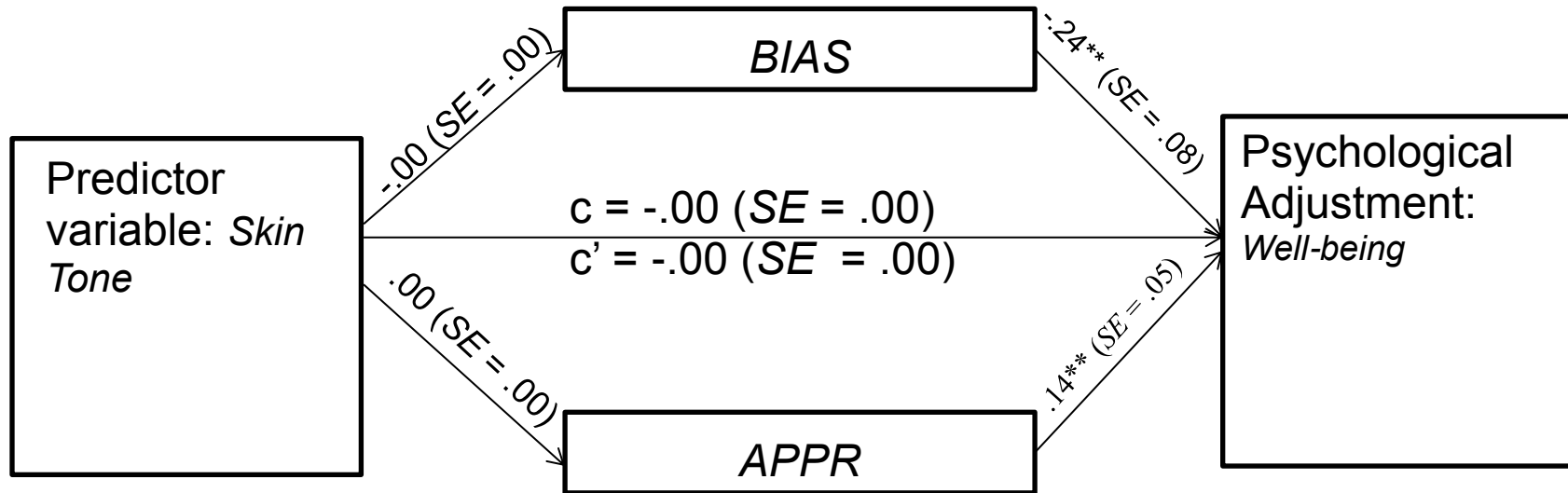


Figure 12. Skin tone socialization mediation pathways for well-being.
 $^{**}p < .01$

APPENDIX: SKIN TONE SOCIALIZATION SCALE

For these statements, please indicate how often your parents have given you the following messages throughout your lifetime, even if the messages were not verbally stated, but communicated in other ways:	Never ▼	A few times ▼	Lots of times ▼
a. Lighter-skinned Blacks are better than darker-skinned Blacks.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
b. Darker-skinned Blacks are better than lighter-skinned Blacks.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
c. Darker-skinned Black are more real than lighter-skinned Blacks.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
d. Lighter-skinned Blacks think they are better than darker-skinned Blacks.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
e. Told you to stop playing in the sun so you don't get darker.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
f. Told you not to date someone because they were light or dark.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
g. Told you Blacks come in many beautiful shades.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
h. Joked that someone was "baked in the oven" too long or not long enough.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
i. Told you all Blacks are beautiful regardless of their skin tone.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
j. Treated you positively/negatively because of your skin tone.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
k. Said that you or someone else was attractive because of your skin tones.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃
l. Said that you or someone else was unattractive because of your skin tone.	<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃

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