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## **Influence of Ethnic-Racial Similarities and Ethnic-Racial Support on Student Well-being: The Role of Natural Mentors**

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**Influence of Ethnic-Racial Similarities and Ethnic-Racial Support on Student Well-being:  
The Role of Natural Mentors**

A Thesis

Presented in

Fulfillment of the

Requirements for the Degree of

Master of Arts

By Yesenia Garcia-Murillo

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Department of Psychology

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**Thesis Committee**

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### **Biography**

The author was born in León, Guanajuato, Mexico on October 3, 1994. She graduated from Bloom High School in Chicago Heights, Illinois in 2013. She received her Associate of Arts degree in Psychology from Prairie State Community College in 2015, and her Bachelor of Arts degree in Psychology from Saint Xavier University in 2017. Yesenia began the Community Psychology Ph.D. program at DePaul University in 2018.

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### **Abstract**

According to Rhodes' model of youth mentoring, one of the ways through which positive outcomes are achieved is through identity development. This study considered ethnic-racial identity (ERI) in the lives of college students of color and how that identity is promoted through natural mentoring relationships. The focus of this study was on ethnic-racial private regard, a component of ERI. This study examined: (a) the associations among mentor ethnic-racial similarity and support and student ERI and (b) the relationships among mentor ethnic-racial similarity and support and student psychological well-being. The sample included 266 college students of color who completed an online survey and reported having a natural mentor. ERI private regard did not play a mediational role in the associations between similarity and support and well-being, but it was found that higher ethnic-racial support from mentors was significantly related to higher ERI private regard and self-esteem in students. To date, few studies have examined both mentor ethnic-racial similarity and support on ethnic-racial identity with a college sample. The findings contribute to the gap in literature on ethnic-racial support and similarity in mentoring relationships and help to identify potential means for promoting well-being while embracing young adults' ERI.

## **Introduction**

Mentors play a positive role in youth's lives during adolescence and into young adulthood (Miranda-Chan et al., 2016). Natural mentors, who are defined as non-parental adults from existing social networks who provide support and guidance to a young person, have been found to promote positive outcomes (Zimmerman et al., 2005; Fruith & Wray-Lake, 2013; Timpe & Lunkenheimer, 2015) while also reducing the negative effects of stressful experiences that young adults may encounter (Hurd & Zimmerman, 2010). Mentoring relationships are characterized by strong bonds, mutuality, and trust (Rhodes et al., 2002). Natural mentors can include extended family members, teachers, or other supportive adults in an individual's life (Bowers et al., 2014).

For young adults, having a natural mentoring relationship can bring many positive outcomes in education, psychological well-being, behavior, and overall physical health (DuBois & Silverthorn, 2005). Beneficial psychological outcomes from mentoring include heightened self-esteem (Miranda-Chen et al., 2016) and decreased psychological distress (Hurd et al., 2018) in young adulthood. Moreover, having a mentor has been associated with an increased likelihood of graduating from high school (DuBois & Silverthorn, 2005) and college enrollment (Miranda-Chan et al., 2016). Mentoring relationships can become increasingly important as students transition from high school to college and students gain more independence (Aquilino, 1997). During this transition, mentor guidance may be highly sought after by students in need of support for unique challenges and stressors that may impact their well-being.

### **Mentoring Underrepresented College Students**

For college students, having a more experienced adult to reach out to is critical when seeking support, companionship, and advice without having their autonomy undermined (Beam



et al., 2002; Zimmerman et al., 2005). Having support and guidance may be especially critical in the case of underrepresented students attending predominantly White institutions (PWI) of higher education (Hurd et al., 2016; Hurd et al., 2018). Underrepresented students in higher education fall within one or more of the following categories: first-generation college students, low-income students, and students from underrepresented ethnic-racial minority groups (i.e., Black/African-American, Latinx/Hispanic, Native American, and/or Pacific Islander; National Association of Colleges and Employers, 2018). The challenges of transitioning to college can be heightened for underrepresented college students who face unique challenges in addition to those generally faced by majority students (Schreiner et al., 2011).

Research has shown that having a mentor during college is positively associated with improved academic outcomes and well-being for underrepresented college students (Hurd et al., 2016). In a study of underrepresented college students, Hurd and colleagues (2016) found a significant association between retention (continued relationship) of students' natural mentors over their first year in college and improved GPAs, which was mediated by reductions in symptoms of depression. The retention of a natural mentor in this study had a meaningful contribution to student academic and psychological outcomes. Another study found mentor educational encouragement to increase underrepresented college students' sense of self-worth which predicted reductions in psychological distress (Hurd et al., 2018). In a similar study with a sample of college-age women, Liang and colleagues (2002) found that higher quality mentoring relationships were associated with lower levels of loneliness and higher self-esteem in students. For underrepresented college students transitioning into higher education, the presence of a mentor has been shown to elicit benefits for student well-being that may not otherwise take place without the support and guidance provided by a mentor.

### **Theoretical Framework**

Based on Rhodes' (2005) model of youth mentoring, mentors can positively influence youth development through three processes: social and emotional development, cognitive development, and identity development. Theoretically, these developmental processes influence positive academic, emotional, and behavioral outcomes in young people (Rhodes, 2005). The present study explores the promotion of ethnic-racial identity in students and with a focus on the process of identity development in Rhodes' model. Ethnic-racial identity (ERI) refers to the beliefs and attitudes about one's own ethnic-racial group membership (Umaña-Taylor et al., 2014). Promoting positive identity development takes place when mentors serve as a role model and an advocate and help shift youth's conceptions of their current and potential identity (Rhodes, 2005). The shift in youth's conceptions of themselves can occur when youth have opportunities to observe adults around them to inform their own choices and behavior while their mentor's views of mentees become internalized (Rhodes, 2005). When ethnicity or race is shared in a mentoring relationship, the mentee may likely be influenced because mentees closely identify with their mentors. For college students of color, having a mentor of a similar ethnicity-race may be conducive to viewing mentors as relatable role models and promoting ERI.

The current study focuses on how mentoring promotes positive well-being in college students through ethnic-racial private regard. As mentioned, when mentors embody positive characteristics within themselves in addition to advocating for youth, youth can develop their own sense of identity and embrace their own attributes (Rhodes, 2005). However, for many underrepresented youth, access and exposure to a mentor is quite limited (Blechman, 1992). Specifically, students of color may lack role models who can promote their educational and professional experiences. This lack of exposure and absence of resources can restrict possible

growth for youth in these areas and negatively influence career trajectories for underrepresented populations.

### **Ethnic-Racial Identity**

ERI is an individual's beliefs and attitudes about their ethnic-racial group membership, including the processes by which these beliefs and attitudes develop over time (Umaña-Taylor et al., 2014). The development of ERI includes both social and psychological experiences (Rivas-Drake et al., 2014a) based on an individual's cultural background, including practices and values, or experiences related to ethnicity-race, such discrimination, and derived from self-perceived ethnic or racial group membership (Helms et al., 2005). There are various components to ERI that include private regard (affect towards one's ethnic-racial group), centrality (importance of group membership to self-concept), exploration (thinking about or exploring one's group membership), and public regard (perceptions of others' evaluations of group; Rivas-Drake et al., 2014a).

For the purpose of this study, I focus on private regard. Private regard refers to youth's evaluations of and affect towards their ethnic-racial group and often includes belongingness (Rivas-Drake et al., 2014b; Scottham et al., 2008). In the research literature, private regard is also referred to as positive affect, group esteem, affirmation, or pride towards one's ethnic-racial group (e.g., Scottham et al., 2008; French et al., 2000; Phinney, 1992). In a review of the literature on the effects of ERI among ethnic minority adolescents, Rivas-Drake and colleagues (2014b) identified private regard, compared to the other components of ERI, as most consistently linked to positive psychosocial outcomes like higher self-esteem, fewer depressive symptoms, and fewer anxiety symptoms (e.g., Swenson & Prelow, 2005; Rivas-Drake et al., 2009; Yip & Fuligni, 2002).

Ethnic minorities vary in how they regard their racial group during different developmental levels and across different contexts. Research shows that ERI group esteem, a component similar to private regard, increases from early to middle adolescence, particularly for Latino and African American youth (French et al., 2006b). Increases in private regard, and other components of ERI, may be the product of increases in abstract reasoning abilities and exploration of the multiple facets of identity. These increases in group esteem are more salient with school transitions; the authors suggest this may be a result of transitioning to more ethnically heterogeneous schools that can make adolescents more aware of their own ethnic identity (French et al., 2006b). In an earlier study, French (2002) found that increases in the demographic diversity of a school environment was associated with increases in group esteem. Considering the research establishing the strong link between private regard and psychological well-being (Bracey et al., 2004; Smith & Silva, 2011; Rowley et al., 1998) and how adolescents' private regard can change during this developmental stage, private regard is particularly relevant to this study.

### **Ethnic-Racial Identity and Well-being in Ethnic Minority Youth**

ERI can play a salient role in the lives of college-age students because of the importance placed on social identity during this time. Particularly for emerging adults in higher education institutions, college experiences provide the time and space to revisit and re-evaluate many identities (Arnett, 2000). ERI influences the lives of ethnic minority youth in different ways (i.e., educational, psychological, social). Previous research has consistently demonstrated a significant association between an ERI and higher self-esteem (i.e., Romero & Roberts, 2003; Jones & Galliher, 2007; Umaña-Taylor & Shin, 2007) and lower psychological distress (i.e., anxiety and depression; Mandara et al., 2009; Caldwell et al., 2002; Banks & Kohn-Wood, 2007) in ethnic

minority young adults. College students from underrepresented backgrounds can often face negative experiences that impact their psychological well-being, such as discrimination, lack of belongingness, and culture shock (Choy et al., 2000; Inkelas et al., 2007; Rankin & Reason 2005; Smith et al., 2007; Wei et al., 2010). Considering the positive impact private regard can have on psychological well-being, I focus on the relationship between ethnic-racial private regard and two forms of psychological well-being: self-esteem and psychological distress which could be important in the persistence and academic achievement of students of color in PWIs of higher education.

### **Ethnic-Racial Private Regard and Self-Esteem**

Multiple studies have demonstrated a link between ethnic-racial private regard and self-esteem for ethnic minority adolescents (e.g., Bracey et al., 2004; Romero & Roberts, 2003; Jones & Galliher, 2007; Umaña-Taylor & Shin, 2007). Bracey and colleagues (2004) conducted a study on a large multi-ethnic sample of high school students to test the relationship between dimensions of ERI, including positive feelings towards their ethnic-racial group, and self-esteem. They found that higher scores of ethnic affirmation were associated with higher scores of self-esteem (Bracey et al., 2004). In a study on the protective factors of dimensions of ERI among Mexican American adolescents, Romero and Roberts (2003) found that adolescents who reported high ethnic affirmation also reported high self-esteem despite facing discrimination. Thus, higher ethnic affirmation in youth can buffer negative experiences with discrimination and enhance self-esteem. The relationship between private regard and self-esteem has also been found in Native American samples. Jones and Galliher (2007) found a significant association between Navajo adolescents' sense of pride and comfort with their ERI and higher self-esteem. The authors concluded that in the face of acculturative stress, having a strong sense of affirmation can be

crucial in overcoming negative experiences. Umaña-Taylor and Shin (2007) studied a multi-ethnic sample of college students from two different geographic locations (Midwest and West Coast) to examine the relationship between components of ERI, such as affirmation/belonging, and self-esteem. It was found that affirmation was significantly and positively correlated with self-esteem for Asian American students in the Midwest sample. The same association between ethnic identity affirmation and self-esteem was found for European Americans in the West coast sample.

### **Ethnic-Racial Private Regard and Psychological Distress**

Another benefit of high private regard in ethnic minority youth is lower levels of psychological distress (Mandara et al., 2009; Caldwell et al., 2002; Banks & Kohn-Wood, 2007), with most of the literature using samples of African Americans. In a longitudinal study with African American teens, Mandara and colleagues (2009) examined the effect of ethnic affirmation on participants' depressive and anxiety symptoms when transitioning from 7th to 8th grade. It was found that for males, higher levels of affirmation predicted fewer depressive symptoms. Whereas for females, higher levels of affirmation across time were associated with significantly fewer anxiety symptoms (Mandara et al., 2009). In another study with African American adolescents, researchers found that participants reporting higher private regard towards their ethnic-racial group also reported less stress (Caldwell et al., 2002). Banks and Kohn-Wood (2007) found that for African American college students with high private regard, their racial identity moderated the relationship between discrimination and depressive symptoms such that high private regard served as a protective factor for students who reported fewer depressive symptoms after experiencing discrimination. These studies highlight the positive role of ethnic minority adolescents' and college students' psychological well-being.

College students of color can have adverse experiences, such as discrimination and culture shock, that impact their psychological well-being (Choy et al., 2000; Inkelas et al., 2007; Rankin & Reason, 2005; Smith et al., 2007), particularly when attending a PWI. Private regard may play a positive role in students' psychological well-being in the face of adversities while in college. Much of the current literature focuses on samples of early (10-14 years old; French, 2002; 2006; Romero & Roberts, 2003; Sánchez et al., 2018) or middle adolescence (15-17 years old; Mandara et al., 2009; Bracey et al., 2004; Jones & Galliher, 2007; Romero & Roberts, 2003) and largely with samples of African Americans (i.e., Mandara et al., 2009; Caldwell et al., 2002; Banks & Kohn-Wood, 2007). It is important to extend the existing research by investigating the association between private regard and psychological well-being in a racially-ethnically diverse sample of college students, who are in late adolescence/young adulthood.

### **Ethnic-Racial Similarity and Support in Mentoring**

Having a supportive and trustworthy mentor may be important in promoting identity development in young adults. Hurd and colleagues (2012) found that the presence of a natural mentor was associated with higher racial identity, including private regard, in a sample of African American older adolescents. A limitation of this study, however, is that the authors examined the role of the presence of a mentor in racial identity, and hence, it is unclear what it is about the presence of a mentor that is related to ERI. The present study aimed to bridge this gap by examining two ways in which mentors may promote youth's ERI.

The two possible ways in which mentors may promote ERI in students of color is by sharing a similar ethnicity-race with their mentee and by supporting the mentee around their ERI. Researchers have suggested that meaningful trust, sharing, and cooperation in a mentoring relationship is more likely to be realized in relationships in which there is a similar ethnicity or

race between mentors and mentees (Rhodes et al., 2002). This is based on beliefs that a mentor of a different ethnicity-race than a youth of color may not completely understand the life of the youth as an ethnic minority in the U.S. and therefore may not provide realistic coping advice or solutions (Rhodes et al., 2002; DeBerry et al., 1996; Johnson et al., 1987). In natural mentoring relationships, mentors and youth tend to share demographic characteristics and backgrounds, such as ethnicity-race (Hurd et al., 2012; Kogan et al., 2011; Sánchez et al., 2006). They may share the same ethnicity-race perhaps because the mentee seeks this type of mentor or because a mentee's social network is composed of people of the same ethnicity-race. These shared qualities may make it more comfortable for youth to trust the adult. Beyond establishing trust and cooperation, when a mentor's ethnicity-race is shared with historically underrepresented youth, the mentoring relationships may be more likely to accomplish positive mentoring outcomes for identity development.

Mentor support for mentees' ethnicity-race is widely understudied but could hold potential insight into how it affects ERI and psychological well-being in mentees. Ethnic-racial support can take the form of demonstrating interest in and respect for an individual's ethnic-racial background or encouraging a sense of pride for belonging to that ethnic-racial group (Sánchez et al., 2018). Researchers suggest that, for people of color, the social support received from members of their ethnic community can be more beneficial for their mental health than from people outside of their ethnic community (Halpern, 1993; Massey & Denton, 2001). Although these researchers refer to general social support, these findings suggest that specific support for a young person's racial-ethnic identity may be particularly important for their ERI and psychological well-being. Thus, receiving support on their ethnic-racial identity from their natural mentors could be conducive to their ERI development. To date, there is only one study



specifically studying the role of mentors' support for youth's ERI in a study of girls in early adolescence (mean age was 11.75; Sánchez et al., 2018). There are no studies that have examined the relationship between mentor support for ERI and diverse college students' ERI. This study examined the association between this kind of support and psychological well-being outcomes in ethnic minority college students.

### **ERI as a Mediator Between Similarity and Support and Well-being**

Given the positive role that ERI plays in the psychological well-being of young adults and the influence that natural mentors may have on the unfolding of this identity, it is essential to understand how to effectively achieve these outcomes for minority young adults. As stated earlier, two aspects of mentoring that are important to consider in promoting young adults' ERI are ethnic-racial similarity in a mentoring relationship and mentors' support for young adults' ERI. For ethnic minority young adults, having an ethnic-racially similar mentor can provide youth with having a role model they could identify with and view as more relatable to their potential selves.

In addition to a shared ethnic-racial background, having a mentor who provides support to youth's ethnic-racial identity may be related to the development of their ERI and the positive effect towards that identity. Given ethnic-racial similarity and support may help the development of ERI in young adults, it is possible that similarity and support can indirectly influence youth's well-being through their ERI private regard. In support of this idea, Gaylord-Harden and colleagues (2007) found that ERI partially mediated the relationship between social support and depression among African American adolescents. Specifically, more social support from peers and family was significantly associated with lower levels of depression for both males and females and lower levels of anxiety for females, through positive ethnic attitudes and higher

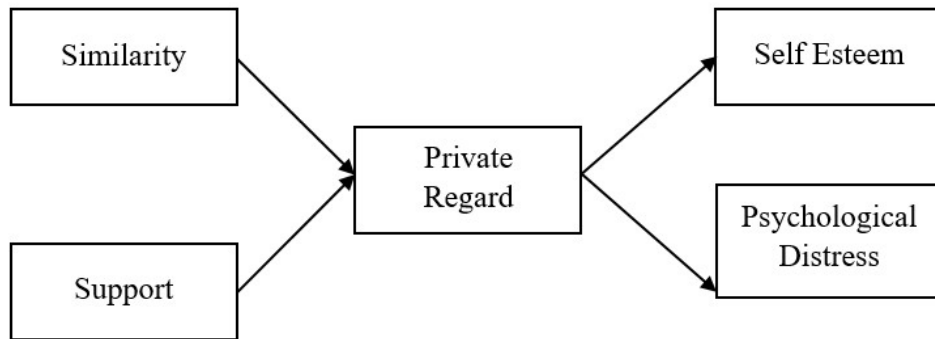
sense of belonging to their ethnic-racial group (Gaylord-Harden et al., 2007). This study has implications for how support for ERI can affect psychological well-being outcomes, such as higher self-esteem and lower psychological distress, through adolescents' private regard.

### **Current Study Rationale**

Considering the salient role natural mentors have in the lives and well-being of underrepresented college students, it is beneficial to understand how ethnic-racial similarities and support can heighten positive mentoring outcomes for youth. Specifically, researchers should gain a better understanding of how ethnic-racial private regard can be further promoted in mentoring relationships with minority youth. Private regard has been identified as a key component of ERI that is consistently linked to positive psychosocial outcomes, yet it is considerably understudied with college samples. While there is literature that speaks of the impact of ERI in college students, ethnic-racial private regard has not been examined as a mediator between mentor-mentee ethnic-racial similarity and support and mentee well-being. Additionally, ethnic-racial support has not previously been explored in college students who are in the later stages of adolescence and later phases of ERI development. This study addresses these gaps and provides insight into how ethnic-racial similarity and ERI support can be used to improve mentoring outcomes. Although ethnic-racial similarity and ERI support may be essential in the unfolding of ERI, it is important to be aware of other contributing factors. For example, even if college students are ethnically-racially similar to their mentors, they may differ along social class, which may influence their relationship and the resulting youth outcomes.

In this study, I examined the associations among mentoring ethnic-racial similarities and support, ethnic-racial private regard, and psychological outcomes (see Figure 1). First, I expected that more ethnic-racial similarity between mentors and mentees and more support for mentees'

ERI would predict a higher private regard in mentees. Second, I expected that higher private regard would be significantly associated with lower psychological distress and higher self-esteem. Third, I proposed an indirect relationship between ethnic-racial similarity and support and mentee well-being. In other words, ethnic-racial similarity and support would be indirectly associated with psychological distress and self-esteem through students' private regard.



*Figure 1:* Proposed Path Model of Ethnic-Racial Similarity and Support, Student ERI, and Student Well-Being.

## Method

### Participants and Procedures

Participants were 266 undergraduate college students from two private universities in the U.S. Participants were part of a larger study and were recruited from introductory psychology courses through the university's subject pool and received one hour of academic credit as compensation for their participation. Participants needed to be at least 18 years of age to be eligible for the study. Participants completed a survey which was self-administered on a web-based platform via Qualtrics and received research credit for their psychology course after completing the survey that took approximately 60 minutes to complete. The sample for the current study only includes participants who reported having at least one natural mentor either on their college campus or off campus at the time the survey was taken.

The majority of the participants were female ( $n = 194$ ; 73%) and their mean age was 20.30 ( $M = 20.30$ , range 18 to 46 years). Participants were able to check multiple race/ethnicity categories, and they identified as the following: Latinx/Hispanic (35%;  $n = 93$ ), Asian/ Asian-American (22.9%;  $n = 61$ ), African American/Black (16.5%;  $n = 44$ ), Mixed race (16.2%;  $n = 43$ ), Multiracial (4.9%;  $n = 13$ ), Middle Eastern/North African (3.4%;  $n = 9$ ), Alaskan/Native (.4%;  $n = 1$ ), and/or Pacific Islander/Native Hawaiian (.4%;  $n = 1$ ).

### **Measures**

The study measures are in Appendix A.

### ***Demographics***

Participants were asked to report their age, gender, and race/ethnicity. Race was measured with the item: “Although the categories listed below may not represent your full identity or use the language you prefer, for the purpose of this survey, please indicate which group below most accurately describes your racial identification? Check all that apply.” The possible response categories are: Native American/American Indian/Alaska Native/Indigenous, Asian, Black, Latinx/Hispanic, Middle Eastern/North African, Pacific Islander, Native Hawaiian, White, Multiracial, and not listed. The participants’ response to the race item was used to determine their inclusion or exclusion in the present study’s sample. Participants who responded only “White” were excluded from the study.

### ***Presence of On-Campus and Off-Campus Natural Mentor***

Participants were asked to report whether they have an on-campus mentor and/or an off-campus mentor. Participants were asked about on-campus mentors with the following item:

“Other than a parent or the person who raised you, is there an adult on your college campus,

someone who you have met since attending college, who is older and more experienced than you who you go to for support and guidance? Do not include friends or romantic partners.”

Participants were then asked about an off-campus mentor with a similar item: “Other than a parent or the person who raised you, is there an influential adult who is off campus, someone who you have met since attending college, who is older and more experienced than you who you go to for support and guidance? Do not include friends or romantic partners.” Participants who answered yes to either question were included in the present study. Participants could answer “yes” to both items indicating they have both an on-campus and off-campus natural mentor.

### ***Ethnic Racial Similarity***

Participants’ perceived similarities in ethnic-racial identity to their mentor was measured with the following question: “To what extent is your personal background similar to your mentor’s racial/ethnic background?” Responses were on a 4-point scale (1 = *not at all similar*; 4 = *very similar*), with an additional option of “I don’t know/ not applicable.” This question was asked for both on- and off-campus mentors. If a participant had both an on- and off-campus mentor, the mean was calculated across both scores.

### ***Support for Ethnic Racial Identity***

Participants’ perceived mentor support for their ethnic-racial identity was measured with a scale developed by Sánchez and colleagues (2018) which assesses the extent to which mentors provide support to mentees’ ethnic-racial identity. This is a 6-item measure and was previously used with an early adolescent sample of Black, Latina, and Asian American girls ( $\alpha = .82$ ; Sánchez et al., 2018). The six items are rated on a 4-point Likert-type scale (1 = *not at all true*; 4 = *very true*). One negative item was reverse coded. Sample items of the scale are: “My mentor is

respectful of my racial/ethnic background and culture,” “My mentor makes me feel proud of my racial/ethnic background and culture,” and “My mentor helps me learn new things about my racial/ethnic background and culture.” The scale for mentor support demonstrated good internal consistency ( $\alpha = .75$ ). A mean score was calculated for each participant; higher scores indicate more mentor support for ethnic-racial identity. If a participant had both an on- and off-campus mentor, the mean was calculated across both scores.

### ***Ethnic-Racial Identity***

Student’s ethnic racial identity was assessed with a modified version of the *Multidimensional Inventory of Black Identity-Teen* (MI-BI), a 9-item ethnic racial identity scale that has been used with multiple racial minority youth samples (Scottham et al., 2008). This scale was previously adapted for use with multiple ethnic groups including Latinx, Black, and Asian American youth samples (i.e., Rivas-Drake et al., 2009; Rivas-Drake, 2011; Yip et al., 2013). Only the *private regard* subscale was used in this study, which measured how positive the respondent feels towards their own racial-ethnic group. The subscale has three items and is on a 5-point Likert-type scale (1 = *strongly disagree*; 5 = *strongly agree*). A sample item from the subscale is: “I feel good about people from my ethnic group.” The private regard subscale demonstrated good internal consistency ( $\alpha = .88$ ). A mean score for the subscale was computed. A higher score indicates stronger/more positive feelings towards their ethnic group.

### ***Psychological Distress***

Psychological distress was measured with *The Brief Symptom Inventory-18* (BSI-18), an 18-item scale ( $\alpha = .87$ ; Wiesner et al., 2010). The BSI-18 has been previously validated with racial minority samples (Assari et al., 2018). Each question asks the extent to which participants

have experienced each item in the past seven days. Responses are on a 5-point Likert-type scale (0 = *not at all*; 4 = *extremely*). A sample item from the *depression* ( $\alpha = .85$ ; Wiesner et al., 2010) subscale is: “Feeling no interest in things.” A sample item from the *anxiety* ( $\alpha = .79$ ; Wiesner et al., 2010) subscale is: “Nervousness or shakiness inside.” A sample item from the *somatization* ( $\alpha = .75$ ; Wiesner et al., 2010) subscale is: “Pains in the heart or chest.” Each item contributes to only one subscale and scored by aggregating the scores on each of the three subscale items. The BSI scale ( $\alpha = .92$ ) demonstrated good internal consistency. A mean score for the whole BSI was computed where a higher score indicates more psychological distress.

### ***Self-Esteem***

Self-esteem was measured using the *Rosenberg Self Esteem Scale* (RSE), a 10-item scale previously validated with adolescents (Rosenberg, 1965), that has demonstrated adequate reliability ( $\alpha = .77$ ; Rosenberg, 1965). The scale measures global self-worth by encompassing positive and negative feelings about the self. Responses are on a 4-point Likert-type scale (1 = *strongly agree*; 4 = *strongly disagree*) with items phrased in both positive and negative directions. A sample positive item is: “I feel that I’m a person of worth, at least on an equal plane with others.” A sample negative item is: “I certainly feel useless at times.” Negative items (items 2, 5, 6, 8 and 9) were reverse coded. The self-esteem scale demonstrated good internal consistency ( $\alpha = .90$ ). A mean score for self-esteem was computed where higher scores indicate higher self-esteem.

### **Data Analytic Strategy**

To test the hypotheses, four separate mediation analyses were conducted due to the nature of the hypotheses. The hypotheses included two predictors: ERI similarity and ERI support, and two outcome variables: psychological distress and self-esteem. PROCESS macro for SPSS (Hayes, 2013), which was used to test the mediation models, only allows one predictor to be included in each model. The models tested the mediational paths from each predictor to each outcome variable, with ERI private regard as the mediator of each model. Model 1 tested the relationship between ERI similarity and psychological distress, mediated by ERI private regard. Model 2 tested the relationship between ERI similarity and self-esteem, mediated by ERI private regard. Model 3 tested the relationship between ERI support and psychological distress, mediated by ERI private regard. Model 4 tested the relationship between ERI support and self-esteem, mediated by ERI private regard.

Each mediational model was tested using bias-corrected bootstrapping with PROCESS macro. In bootstrapping, resamples are repeatedly drawn from the data with replacement, and unstandardized estimates of the effect are calculated for each resample (5,000 for this study). These unstandardized estimates are then used to construct a 95% confidence interval. If the confidence interval does not contain zero, the indirect effect is considered significant. This test for significance testing is preferred over other approaches, such as the Sobel test, because it does not assume the data are normally distributed (Hayes, 2009; Preacher & Hayes, 2008). Bootstrapping is used to derive the point estimate of  $ab$ , representing the product of ( $a$ ) the effect of the independent variable ( $X$ ) on the mediator and ( $b$ ) the effect of the mediator on the dependent variable ( $Y$ ) controlling for  $X$ . Statistically,  $ab$  is equivalent to the difference between the total effect of  $X$  on  $Y$  (independent of the mediator) and the direct effect of  $X$  on  $Y$  (controlling for the mediator), and is thus a simpler way of assessing mediation than the causal



steps approach (Preacher & Hayes, 2008). There are several ways to calculate the effect size for mediation models, but bias-corrected bootstrap interval estimates of  $ab/sy$  (the partially standardized indirect effect) for single-mediator models are preferred because they are less biased than other methods. This statistic is automatically calculated for mediation models in PROCESS.

## Results

### Descriptive Statistics

Descriptive statistics were calculated, and bivariate Pearson correlations were conducted of the key study variables. As shown in Table 1, ethnic-racial similarity in mentoring relationships was positively and significantly associated with ethnic-racial support from mentors and with psychological distress, but not significantly associated with ERI private regard. Ethnic-racial support from mentors was positively and significantly associated with ERI private regard and with self-esteem, but not with psychological distress. ERI private regard was not significantly associated with self-esteem nor psychological distress. Self-esteem was not significantly associated with psychological distress. The correlations between gender and age and the outcome variables, self-esteem, and psychological distress, were examined but were not found to be significantly correlated. Therefore, gender and age were not included as covariates in the mediation models. There were 221 students of color with one on-campus or off-campus mentor, and 45 students who had both an on-campus and off-campus mentor.

### Table 1

*Means, standard deviations, and Pearson bivariate correlations of key variables*

Variable	<i>M</i>	<i>SD</i>	<i>Range</i>	1	2	3	4
1. ERI Similarity	3.00	1.55	1-4	–			
2. ERI Support	3.17	.63	1.58-4	.43**	–		
3. ERI Private Regard	4.31	.76	1-5	.12	.30**	–	
4. Self-Esteem	2.38	.77	1-4	.11	.15*	.08	–
5. Psychological Distress	2.15	.87	1-5	.20**	.03	.02	.03

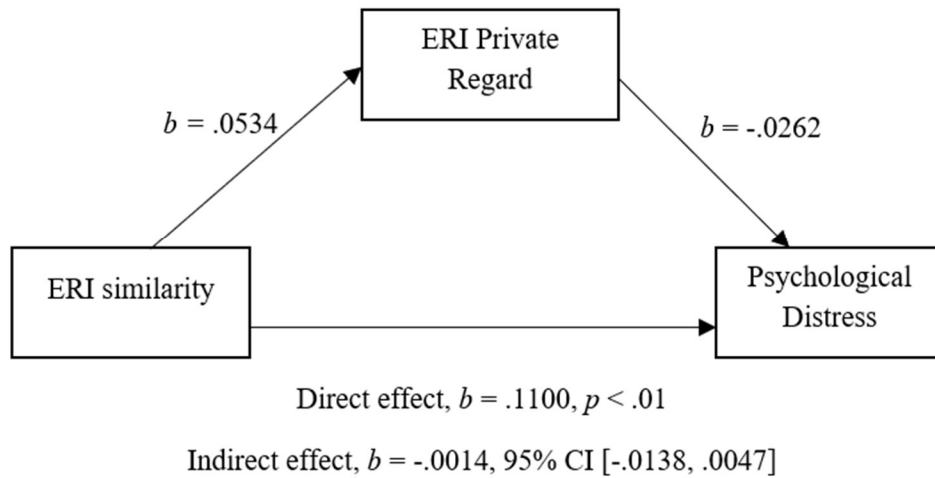
*Note:* *M* represents mean and *SD* represents standard deviation. \* $p < .05$ ; \*\*  $p < .01$

### The Roles of Ethnic-Racial Similarity, Ethnic-Racial Support and Private Regard in Psychological Well-Being

The first model examining ethnic-racial similarity, ERI private regard, and psychological distress was significant,  $F(2, 231) = 4.60, p < .05, R^2 = .04$  (see Figure 1). The direct effects are reported in Table 2. The hypothesis that ERI similarity would predict ERI private regard was not significant. The hypothesis regarding ERI private regard and psychological distress showed that hypothesis two was not supported; higher private regard did not significantly predict lower psychological distress. Finally, ERI private regard was not a significant mediator between ERI similarity and psychological distress, ( $b = -.0014, 95\% \text{BCa CI } [-.01, .0047]$ ). Although it was not hypothesized, there was a significant direct effect between ERI similarity and psychological distress, such that higher ERI similarity was associated with higher psychological distress.

#### Figure 1

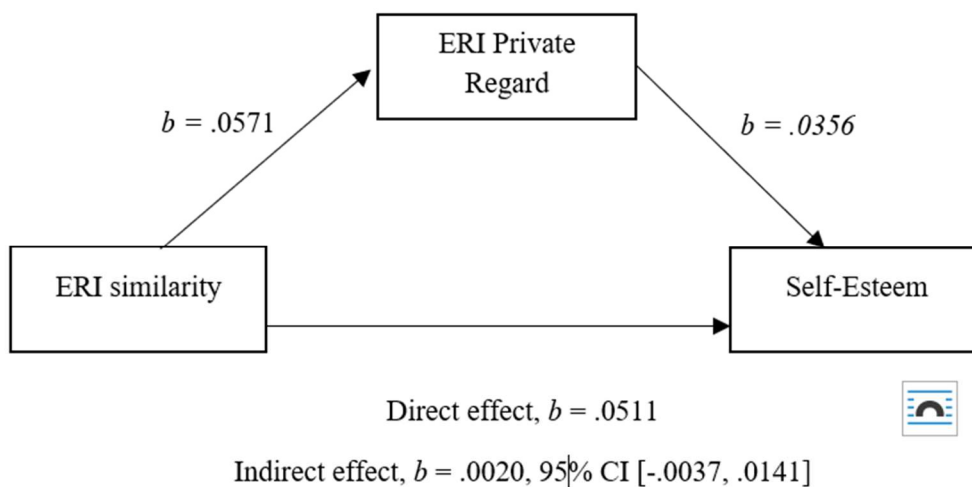
*ERI as a Mediator between ERI similarity and Psychological Distress*



The overall model examining ethnic-racial similarity, ERI private regard and self-esteem was not significant,  $F(2, 237) = 1.52, p = .22, R^2 = .01$  (see Figure 2). The direct effects are reported in Table 2. The hypothesis regarding ERI private regard and self-esteem was not supported; private regard was not significantly related to self-esteem. Further, there was no significant indirect effect between ERI similarity and self-esteem via ERI private regard, ( $b = .0020, 95\% \text{ BCa CI } [-.0037, .0141]$ ).

### Figure 2

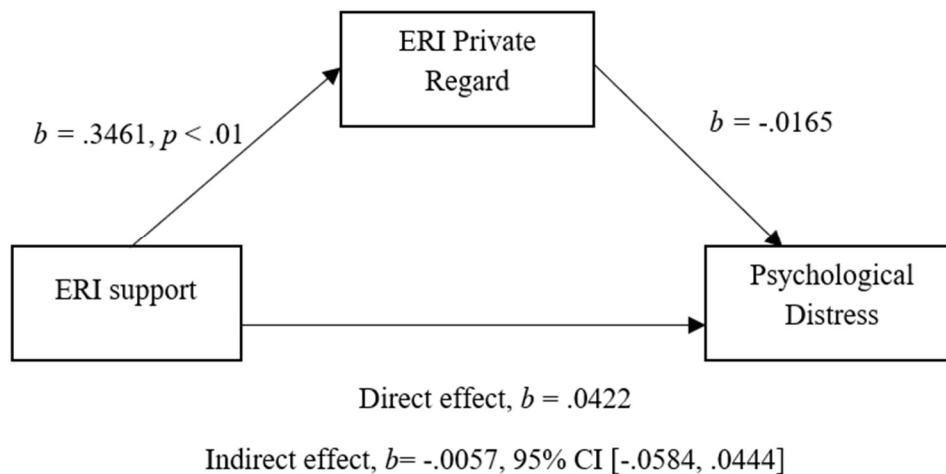
*ERI Private Regard as a Mediator between ERI Similarity and Self-esteem*



The overall model examining ERI support, ERI private regard, and psychological distress was not significant,  $F(2, 232) = .11, p = .89, R^2 = .001$  (see Figure 3). The direct effects are reported in Table 2. Consistent with the study hypothesis, higher ERI support from mentors was significantly associated with a higher private regard. However, the indirect effect of ERI support on psychological distress via ERI private regard was not significant, ( $b = -.0057, 95\% \text{ BCa CI } [-.0584, .0444]$ ).

### Figure 3

*ERI Private Regard as a Mediator between ERI Support and Psychological Distress*

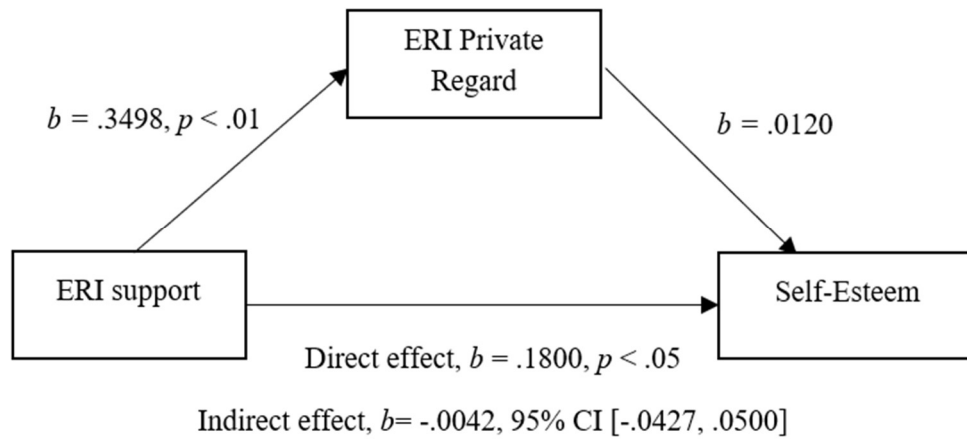


The overall model examining ethnic-racial support, ERI private regard and self-esteem was not significant,  $F(2, 238) = 2.76, p = .07, R^2 = .02$  (see Figure 4). The direct effects are reported in Table 2. The hypothesis regarding ERI private regard and self-esteem was not supported; higher private regard did not significantly predict higher self-esteem. Finally, the hypothesis that ERI private regard would mediate the association between ERI support and self-esteem was not supported as the indirect effect was not significant, ( $b = -.0042, 95\% \text{ BCa CI } [-.0427, .0500]$ ; see Figure 4). Although it was not hypothesized, there was a significant direct

effect between ERI support and self-esteem. Higher ERI support was associated with more positive self-esteem.

**Figure 4**

*ERI Private Regard as a Mediator between ERI Support and Self-esteem*



**Table 2**

*Direct effects in the models testing the ethnic-racial similarity and support, private regard and psychological well-being*

Predictor	<i>b</i>	<i>t</i>	CI
Model 1: ( <i>n</i> = 234)			
ERI Similarity □ Psychological distress	.11	3.03**	[.04, .18]
ERI Private Regard □ Psychological distress	-.03	-.36	[-.17, .12]
ERI Similarity □ ERI Private Regard	.05	1.67	[-.01, .12]
Model 2: ( <i>n</i> = 240)			
ERI Similarity □ Self-Esteem	.05	1.58	[-.01, .11]
ERI Private Regard □ Self-Esteem	.04	.54	[-.09, .17]
ERI Similarity □ ERI Private Regard	.06	1.80	[-.01, .12]
Model 3: ( <i>n</i> = 235)			
ERI Support □ Psychological distress	.04	.47	[-.14, .23]
ERI Private Regard □ Psychological distress	-.02	-.21	[-.17, .14]
ERI Support □ ERI Private Regard	.35	4.58***	[.20, .50]
Model 4: Self-Esteem ( <i>n</i> = 241)			
ERI Support □ Self-Esteem	.18	2.19*	[.02, .34]
ERI Private Regard □ Self-Esteem	.01	.18	[-.12, .15]
ERI Support □ ERI Private Regard	.35	4.69***	[.20, .50]

*Note: \**p* < .05; \*\**p* < .01; \*\*\**p* < .001*

## Discussion

The purpose of this study was to gain a better understanding of how ERI private regard mediates the relationships between ethnic-racial similarity and support in natural mentoring and psychological well-being of college students of color. This study fills a gap in the mentoring literature by exploring whether mentors contribute to the development of an ERI in older adolescents through ethnic-racial similarity and provision of ERI support. Results revealed that ethnic-racial support was a predictor of ERI private regard. Second, ethnic-racial support was

found to predict student self-esteem. And third, ethnic-racial similarity predicted psychological distress in students. Exploring and understanding these associations are key because of the implications they have for positive ERI development, which are essential for college students of color and achieving positive well-being.

Rhodes' (2005) model of youth mentoring states that mentoring relationships promote identity development in youth, such as ERI, and promoting a positive identity then helps foster positive outcomes in these relationships, such as positive psychological outcomes. Past research has demonstrated a strong link between components of ERI, such as private regard, and psychological well-being (Bracey et al., 2004; Jones & Galliher, 2007; Mandara et al., 2009; Caldwell et al., 2002). However, less is known about how mentors foster a positive ERI in youth to achieve these outcomes, particularly in college-aged youth. Exploring ethnic-racial similarity and support in mentoring can provide guidance for mentoring practices and significant insight into the development of ERI private regard in college students of color.

Although the current study did not support the hypothesis that higher ethnic-racial similarity would predict positive ERI private regard, this is a relationship that has not been examined thoroughly in past studies and warrants further research in natural mentoring relationships. Rhodes (2005) suggests that promoting positive identity development takes place when mentors serve as a role model and help shift youth's conceptions of their current and potential identity. However, having a mentor with a similar race-ethnicity may not automatically foster ERI in youth, particularly if the mentor does not have a strong ERI themselves. Sharing ethnicity-race in a mentoring relationship may facilitate shifts in identity development when youth of color more closely relate and identify with their mentors based on this similarity, but this may be dependent on how salient race-ethnicity is to the mentor and whether or not they

proactively promote it in the relationship. Moreover, mentors and youth in natural mentoring relationships tend to share demographic characteristics and backgrounds such as a shared ethnicity-race (Hurd et al., 2012; Kogan et al., 2011; Sánchez et al., 2006), which could mean that youth seek these ethnic-racially similar mentors. Youth of color may be more comfortable with trusting an adult who shares these similarities and be more likely to achieve positive outcomes for identity development when there is a shared race-ethnicity. Although a shared ethnicity could make ERI development more likely, there are other factors that may be more salient and promote ERI private regard. For example, the people or environment where the youth spend more time can have a bigger impact on whether ERI is embraced. If their family or community encourage or even reinforce blending into White America instead of valuing their ethnic/racial uniqueness, having a shared ERI with a mentor would not make a difference to their ERI private regard.

This study is one of the first to demonstrate that ERI support from a mentor is significantly related to higher private regard and positive self-esteem in college students of color. Apart from Sánchez and colleagues (2018), support for ERI has not been studied in mentoring research which points to a gap in the understanding of how or whether ERI is embraced in natural mentoring relationships and the significance it may have on ERI development. Support for ethnicity-race can be valuable to youth of color because of its potential to promote their ERI. Youth's private regard and how they feel towards that part of their identity may be influenced by the validation they receive from important people in their lives, such as a mentor. Mentees learn to internalize their mentors' views towards them through observation and role modeling (Rhodes, 2005), having mentor support around youth's ethnicity-race may be one of the ways that youth internalize and develop a positive ERI. For youth who have low private regard for



their ERI or are beginning to explore their identity, having support for their ERI may be critical to the positive development of their ERI. Although previous studies have found that the presence of a natural mentor is associated with private regard, (Hurd et al., 2012), the present findings may be useful in understanding more about what that presence means through avenues of ethnic-racial support and similarity that may promote youth's ERI.

Whereas past research has demonstrated that ERI private regard has been linked to positive psychosocial outcomes, including fewer depressive symptoms and higher self-esteem (Swenson & Prelow, 2005; Rivas-Drake et al., 2009; Armenta et al., 2011; Worrell, 2007; Yip & Fuligni, 2002), the present study did not find that private regard was significantly related to self-esteem or psychological distress. A possible explanation could be the ethnic/racial differences between the current study sample and the samples in previous research; this investigation had a sample of diverse students of color (i.e., Black, Latinx/Hispanic, Asian American) whereas other studies have focused on a specific ethnic/racial group (e.g., Romero & Roberts, 2003; Jones & Galliher, 2007). The relationship between private regard and psychological outcomes may vary across ethnicity/race and having a heterogeneous group of students of color may hide those nuances of positive or negative relationships. Additionally, previous studies have not exclusively examined youth of color; some have used ethnically diverse samples that include White or European-American youth (e.g., Swenson & Prelow, 2005; Rivas-Drake et al., 2009; Worrell, 2007) which may also influence the outcome and direction of the relationship.

Another possible explanation could be related to the differences in the measures used in this study compared to previous studies that have examined the relationship of ERI components and psychological well-being. Previous studies examining ethnic identity have used varying measures that capture components of ethnic identity that are similar to private regard but with a

different scale, like the Multigroup Ethnic Identity Measure (MEIM; Swenson & Prelow, 2005; Rivas-Drake et al., 2009; Worrell, 2007; Yip & Fuligni, 2002). Similarly, these studies have utilized scales other than the Brief Symptom Inventory to measure psychological distress symptoms that include the Center for Epidemiological Studies Depression Scale—Brief Version (Roberts & Sobhan, 1992) and the Profile of Mood States (POMS; McNair et al., 1971). Other scales used to measure psychological distress include discrete subscales for mental health conditions (i.e., anxiety, depression) or only focus on one mental health condition. The Brief Symptom Inventory used for this study has 18 items that do not break down into even and discrete subscales. There are items that ask about symptoms related to various mental health disorders (e.g., depression, anxiety, somatization, insomnia, etc.) and therefore capture an overall, general picture of the participant's levels of psychological distress. Perhaps if I had examined symptoms related to one specific mental health disorder (e.g., depression), I would have found that ERI private regard was related to that particular set of symptomatology. The combination of different measures of ERI and psychological well-being-related measures could explain why the present study did not find a significant relationship between private regard and psychological distress nor self-esteem.

Findings did not support the hypothesis that ERI private regard would mediate the association between ethnic-racial support and similarity and well-being outcomes: psychological distress and self-esteem. This study was the first to directly test this mechanism and while the findings were not significant, it is a mechanism that should be further explored given the limited research on this topic, particularly in natural mentoring. The predicted relationship may not have been found significant in this study because there could be other components of ERI that could explain the relationship between ethnic-racial similarity and support and well-being outcomes.

For instance, other ERI components such as centrality (importance of group membership to self-concept), exploration (thinking about or exploring one's group membership), and public regard (perceptions of others' evaluations of group) could potentially mediate the relationship and strengthen indirect effects between the mentoring relationship and psychological distress. As previously mentioned, Rhodes' (2005) model on youth mentoring states that mentoring relationships influence identity development in youth, but there is more to learn about the distinct mentoring practices or qualities that may strengthen this association.

There were additional findings that were not hypothesized but provide further insight into how ethnic-racial similarity and support play a role in well-being. First, results showed a positive association between ethnic-racial similarity in the natural mentoring relationships and psychological distress. This was an unexpected direction, such that more similarity was related to higher psychological distress. However, because of the cross-sectional nature of this study, we cannot assume that this relationship is causal nor fully understand how this relationship unfolds across time. A possible explanation could be that college students of color who are experiencing high levels of distress were more actively seeking support from ethnic-racially similar adults in their life or on their campus. Students of color may feel more comfortable in reaching out to adults who are more similar to them when they are experiencing more distress. We need longitudinal studies where psychological distress and mentoring can be observed over time and inform whether similarity or support directly impact levels of distress and/or distress impacts the development of mentoring relationships with similar race-ethnicity mentors. There are other factors not accounted for or measured in this study that could inevitably impact this relationship in various ways.

An additional finding was that ethnic-racial support was positively associated with self-esteem, such that more support was significantly related to higher self-esteem in youth. Although not specifically on ethnic-racial support, there is a plethora of literature that establishes the link of social support and well-being in ethnic-racial minorities (e.g., Chu et al., 2010; Gariépy et al., 2016; Piquart & Sörensen, 2000). In this study, support for ethnic-racial identity in youth of color demonstrates a similar pattern in relation to levels of self-esteem. For instance, having mentor support for ethnicity/race (e.g., mentor encouraging youth to learn more about their ERI, mentor demonstrating interest) could make youth of color feel more confident and good about themselves overall. As a result, this would increase youth of color's sense of self-esteem and self-worth.

### **Strengths, Limitations, and Future Directions**

The present study demonstrates many strengths that are worth noting. One strength is the context from which the sample was based: college students of color attending a PWI. Attending a PWI could make the students' ERI particularly salient to them because there may not be many students that look like them. Furthermore, underrepresented college students attending PWIs may be in particular need of support from their mentors (Hurd et al., 2016; Hurd et al., 2018) because of various racial stressors that they face in the environment, which would result in needing ethnic/racial support. This support can be beneficial for students' mental well-being or in ways that benefit the development of their ERI. Another strength of this study is its focus on college-age students, a sample that is understudied in research on ERI and mentoring. Most of the research on ERI and mentoring together have widely focused on early adolescence and less on older adolescents. This study provides a step towards understanding ERI in mentoring

relationships for older adolescents who often have salient identities that unfold during their college years (Arnett, 2000).

Although there were many strengths to the study, it is not without limitations. The first limitation is that ethnic-racial similarity in the mentoring relationship was measured with only one item. This item may not capture the different aspects of an ERI where a student may be similar or different to their mentor based on ethnicity or race. A second limitation concerns students who reported having both an on- and off-campus mentor. In the measures asking about their mentors (i.e., similarity and support for ERI), the mean was calculated to get an average of on-campus and off-campus mentor similarity or support. Using the mean could hinder the ability to notice any significant differences in individual mentoring relationships. Third, the statistical approach used to test the hypotheses and proposed model limited the mediational models to testing only one predictor and one outcome at a time. This hindered the ability to test a path model where both predictors, mediator and both outcome variables were analyzed at the same time. A fourth limitation is that the sample that included students from various ethnicities/races were grouped into one group. This could limit the ability to notice any differences in results across ethnic/racial groups. Additional analyses could take a closer look at differences or similarities across groups. The measure for psychological distress, which captured a general level of distress without a breakdown of distinct mental health disorders, was another limitation that prevented a more detailed picture of different sets of symptoms by disorder. Last, a final limitation is the cross-sectional design of the study that prevents the ability to draw any conclusions about causality or understand how these relationships can develop over time for students of color.

This study has implications for research and interventions. Future research would benefit by looking at these relationships in a longitudinal design to shed light on how these variables unfold, including ERI and well-being. It would also be valuable to apply a longitudinal design that observes college students of color throughout their college years. During college years, salient mentors may change or new ones could be gained. Other directions for research can examine the way that other components of ERI (i.e., centrality, exploration, and public regard) could mediate or moderate the relationship between mentoring and outcomes for youth of color. Public regard's relationship to positive well-being outcomes in youth has been heavily researched by previous studies (Mandara et al., 2009; Caldwell et al., 2002; Banks & Kohn-Wood, 2007), but less has focused on other components of ERI and academic, social, or health outcomes in youth. Last, future research should explore whether mentor role type (e.g., teacher, staff, family) is associated with the amount of ethnic/racial support provided. It would be valuable to have further insight on the mentor roles (e.g., family member, religious leader, professor) and how they may differ in the provision of support for youth's ERI.

Study findings can also inform faculty and staff training within higher education institutions, particularly in PWIs, on how to effectively support college students of color and promote the development of students' ERI. These findings demonstrate the significance of providing ERI support and the well-being benefits it reaps, which may be critical for college students of color. For students of color attending PWIs, support and representation for their ethnicity/race may not be readily available or even acknowledged on their campus. Faculty and staff are in a unique position to extend and demonstrate their support to these students. Such trainings could focus on ways that this support can be shown (e.g., including literature/material representative of a student's ethnic/racial group and contributions) and things to avoid (e.g.,

asking the student of color to speak on behalf of their entire ethnic/racial group and experiences). Further, ERI is critically important to the healthy development of youth of color (Rivas-Drake et al., 2014a). A positive ERI has been found to influence positive outcomes but also buffer the negative effects of stressors and detrimental events (Rivas-Drake et al., 2014a) in the lives of youth, such as discrimination and cultural insensitivity in college. Having staff and faculty foster an inclusive and supportive college environment can help students feel more connected and represented on their campus. Therefore, it is imperative that ERI development be a focus in mentoring relationships and future research.

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## Appendix A

### Measures used in the study

#### Demographic Questions

##### Age

What is your current age? (please write in answer)

##### Gender Identity

What is your gender identity?

1. Cisgender man
2. Cisgender woman
3. Transgender
4. Nonbinary-fluid-queer-gender queer
5. Not listed, please specify if you choose

##### Racial Identity

Although the categories listed below may not represent your full identity or use the language you prefer, for the purpose of this survey, please indicate which group below most accurately describes your racial identification? Check all that apply.”

1. Native American/American Indian/Alaska Native/Indigenous
2. Asian, Black, Latinx/Hispanic
3. Middle Eastern/North African
4. Pacific Islander, Native Hawaiian
5. White
6. Multiracial
7. not listed.

#### Ethnic-Racial Identity Support

1		2		3		4			
Not At All True		A Little True		Pretty True		Very True			
1. My Mentor helps me learn new things about my racial/ethnic background and culture.						1	2	3	4
2. My Mentor seems interested in my racial/ethnic background and culture.						1	2	3	4
3. My Mentor seems uncomfortable talking to me about my racial/ethnic background and culture.						1	2	3	4
4. My Mentor makes me feel proud of my racial/ethnic background and culture.						1	2	3	4
5. My Mentor is respectful of my racial/ethnic background and culture.						1	2	3	4
6. My Mentor seems to understand my racial/ethnic background and culture.						1	2	3	4

**Ethnic-Racial Similarity**

	<b>(Circle One Answer)</b>				
2. To what extent is your personal background similar to your mentor's...	Not At All Similar	Not Very Similar	Somewhat Similar	Very Similar	I Don't Know/Not Applicable
Racial/ethnic background?	1	2	3	4	8

**Ethnic-Racial Identity Private Regard**

<b>MODIFIED_MIBI-T</b>	
<b>Instructions:</b> Please think about how you felt in the <u>past 30 days</u> when answering these next questions, and continue to think about the ethnic group that you feel most a part of.	
<b>Responses:</b>	1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly agree
	3. I am happy that I am my ethnicity.
	6. I feel good about people from my ethnic group.
	9. I am proud to be part of my ethnic group.

**Rosenberg Self-Esteem Scale**

Instructions: Below is a list of statements dealing with your general feelings about yourself.

**If you strongly agree, circle SA. If you agree with the statement, circle A. If you disagree, circle D. If you strongly disagree, circle SD.**

- |   |    |   |   |    |
|---|----|---|---|----|
| 1. On the whole, I am satisfied with myself.                                  | SA | A | D | SD |
| 2. At times, I think I am no good at all.                                     | SA | A | D | SD |
| 3. I feel that I have a number of good qualities.                             | SA | A | D | SD |
| 4. I am able to do things as well as most other people.                       | SA | A | D | SD |
| 5. I feel I do not have much to be proud of.                                  | SA | A | D | SD |
| 6. I certainly feel useless at times.   | SA | A | D | SD |
| 7. I feel that I'm a person of worth, at least on an equal plane with others. | SA | A | D | SD |
| 8. I wish I could have more respect for myself.                               | SA | A | D | SD |
| 9. All in all, I am inclined to feel that I am a failure.                     | SA | A | D | SD |
| 10. I take a positive attitude toward myself.                                 | SA | A | D | SD |

**The Brief Symptoms Inventory-18 (BSI-18)**

Here is a list of problems people sometimes have. As I read each one to you, I want you to tell me **HOW MUCH THAT PROBLEM HAS DISTRESSED OR BOTHERED YOU DURING THE PAST 7 DAYS INCLUDING TODAY**. These are the answers I want you to use.

**0 = Not at all 1 = A little bit 2 = Moderately 3 = Quite a bit 4 = Extremely R = Refused**

DURING THE PAST 7 DAYS, how much were you distressed by:

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 1. Nervousness or shakiness inside                       | 0 | 1 | 2 | 3 | 4 | R |
| 2. Faintness or dizziness                                | 0 | 1 | 2 | 3 | 4 | R |
| 3. The idea that someone else can control your thoughts  | 0 | 1 | 2 | 3 | 4 | R |
| 4. Feeling others are to blame for most of your troubles | 0 | 1 | 2 | 3 | 4 | R |
| 5. Trouble remembering things                            | 0 | 1 | 2 | 3 | 4 | R |
| 6. Feeling easily annoyed or irritated                   | 0 | 1 | 2 | 3 | 4 | R |
| 7. Pains in the heart or chest                           | 0 | 1 | 2 | 3 | 4 | R |
| 8. Feeling afraid in open spaces                         | 0 | 1 | 2 | 3 | 4 | R |
| 9. Thoughts of ending your life                          | 0 | 1 | 2 | 3 | 4 | R |

DURING THE PAST 7 DAYS, how much were you distressed by:

- |  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| 10. Feeling that most people cannot be trusted   | 0 | 1 | 2 | 3 | 4 | R |
| 11. Poor appetite                                | 0 | 1 | 2 | 3 | 4 | R |
| 12. Suddenly scared for no reason                | 0 | 1 | 2 | 3 | 4 | R |
| 13. Temper outbursts that you could not control  | 0 | 1 | 2 | 3 | 4 | R |
| 14. Feeling lonely even when you are with people | 0 | 1 | 2 | 3 | 4 | R |
| 15. Feeling blocked in getting things done       | 0 | 1 | 2 | 3 | 4 | R |
| 16. Feeling lonely                               | 0 | 1 | 2 | 3 | 4 | R |

17. Feeling blue	0	1	2	3	4	R
18. Feeling no interest in things	0	1	2	3	4	R