Examining pre-service teachers' color-blind racial ideology, emotion regulation, and inflexibility with stigmatizing thoughts about race

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ABSTRACT

In this study, we examined the relationship between 159 predominately White pre-service teachers' color-blind racial attitudes, emotion regulation, and psychological inflexibility with stigmatizing thoughts about race. Results indicated strong relationships between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race. Specifically, emotion regulation difficulties (suppression strategies) served as a mediator between color-blind racial ideology (unawareness of racial privilege) and psychological inflexibility with stigmatizing thoughts about race. In addition, emotion regulation difficulties (lack of emotional clarity) served as a moderator between color-blind racial ideology (blatant racial issues) and psychological inflexibility with stigmatizing thoughts about race. Similarly, emotion regulation difficulties (impulse control difficulties) served as a moderator between color-blind racial ideology (institutional discrimination) and psychological in-flexibility with stigmatizing thoughts about race. The study's overall findings highlight pre-service teachers' difficulties with regulating their emotions in racial situations as well as how this difficulty in turn influences their ability to change negative thoughts regarding other racial groups. The study has implications for how pre-service teachers regulate racial emotions in the classroom as well as how they may potentially interact with racially diverse students.

1. Introduction

Recently, Dayanna Volitich, a middle school social studies teacher in Florida, hosted a White nationalist podcast called "Unapologetic" using the pseudonym, "Tiana Dalichov". In this podcast, Volitich espoused emotionally-laden racist statements (Stevens, 2018). Her racist ideology, as well as that of her followers, were vividly displayed. For instance, she often had guests that discussed their perceptions of People of Color as inferior. Also, she even encouraged her followers to "infiltrate" public schools and "covertly" interject White nationalist beliefs, including the promotion of color-blind racial ideology, the minimizing of the role of race and racism in society. It was later revealed that her racist beliefs were being infused within the classroom through subtle and overt commentary and assignments. When the school district learned of her behavior, Volitich was removed from the classroom. However, she later resigned claiming that her podcast was simply "political satire and exaggeration" (Stevens, 2018).

Volitich's actions demonstrates that it is nearly impossible to separate racial ideology, emotions, and racial beliefs from professional contexts, particularly the classroom. People are often influenced by

negative racial views, experience unpleasant emotions when encountering mixed-raced situations, and then react based upon their negative racial beliefs. This is the case because people have a difficult time changing their stigmatizing thoughts or beliefs about race, the negative thoughts that people have about members of particular racial groups (Levin et al., 2014, 2016). Also, the very involvement in a racial situation elicits a variety of emotions, often unpleasant emotions, and is often accompanied with difficulties in engaging in emotion regulation (Spanierman & Cabrera, 2015). Specifically, people need to change their stigmatizing thoughts about race, particularly their utilization of psychological inflexibility, the lack of willingness to change their thoughts about race. In order to do so, we need to better understand the relationships between racial ideology, emotion regulation, and psychological inflexibility with stigmatizing thoughts about race, especially within populations of future teachers.

As such, this study aims to better understand the relationships between pre-service teachers' color-blind racial ideology, emotion regulation/difficulties in emotion regulation, and inflexibility with stigmatizing thoughts about race. As shown in Fig. 1, we conceptualize the three constructs as working synchronously to either alter or uphold
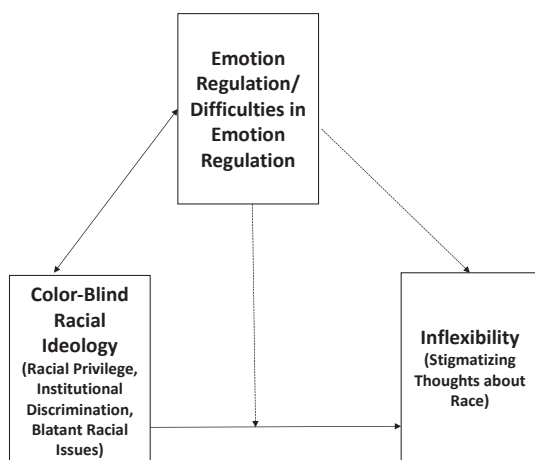
Fig. 1. Conceptual model of the relationship between color-blind racial ideology, emotion regulation/difficulties with emotion regulation, and inflexibility with stigmatizing thoughts about race. Difficulties with emotion regulation serves as a mediator and moderator for color-blind racial ideology and inflexibility.

one's stigmatizing thoughts about race. While color-blind racial ideology directly influences difficulties in emotion regulation, difficulties in emotion regulation may also mediate or moderate one's inflexibility with stigmatizing thoughts about race. Gaining deeper insight between the dynamics of these three constructs is necessary to inform future efforts for developing a more race conscious and culturally empathetic teacher workforce.

2. Overview of literature

2.1. Color-blind racial ideology

Bonilla-Silva (2001) describes *ideology* as 'broad mental and moral frameworks, or "grids", that social groups use to make sense of the world, to decide what is right and wrong, true or false, important or unimportant' (p. 62). Although ideologies are not an explicit guide on what to think or how to behave, they provide basic guidelines with which people filter through confusing or conflicting information to make sense of social reality (Bonilla-Silva, 2018). In addition, Lewis (2001) explains that "ideologies tell particular kinds of stories about the way the world works" (p. 799). As such, racial ideology is an individual's views about race, how race functions in society, and how racial information is interpreted (Neville, Awad, Brooks, Flores, & Bluemel, 2013). Omi and Winant (2015) emphasize the collective nature of racial ideology and explain the ways it functions to affect our consciousness. For example, in our daily lives, it influences who we choose as friends and marriage partners, what neighborhoods we live in, and what we consider knowledge, truth, moral, and deserving. Similarly, it influences teachers' perceptions and decision-making processes, such as which schools they choose to teach in and why, who deserves an education and who does not, what policies are implemented and for whose benefit, and which knowledge and truth is valued over another. Ultimately, individuals' racial ideologies, including teachers', serve to maintain the racialized social structure in our society. There are various racial ideologies, with color-blind racial ideology being one of the most pervasive (Neville et al., 2013) in our current time.

Color-blind racial ideology arose after the Post-Civil Rights movement to obscure racialized structures that maintain racial inequalities and conceals the advantages and resources Whites benefit from at the expense of People of Color (Bonilla-Silva, 2018). Color-blind ideology, which includes this general false belief that racism ended with the Post-Civil Rights movement (Alexander, 2010), minimizes the reasons for

the real effects of oppression and marginalization of People of Color, from educational and economic inequities, to cultural differences and individual traits, to focusing on victim blaming (Bonilla-Silva, 2001). Scholars have coined this new dominant racial ideology as "laissez-faire racism" (Bobo, Kluegel, & Smith, 1997), "competitive racism" (Essed, 1996), "meta racism" (Kovel, 1970; Ryan, 1971), and "color-blind racism" (Bonilla-Silva, 2018).

Due to its hegemonic nature, the majority of people (White and People of Color) embrace color-blind ideology in some form. It is manifested in various ways, such as when an individual claims that race does not matter anymore or that they do not see color. Color-blind ideology reifies the belief that racism and discrimination are mostly a problem of the past and justifies the racial status quo. Therefore, when racist behaviors do occur, they are inaccurately seen as unacceptable behaviors committed by a small number of irrational groups of people. Consequently, color-blind ideology decentralizes race, racism and racial discrimination from social, political, economic, and historical contexts and suppresses the experiences of the racially oppressed (Bonilla-Silva, 2001). It has been central to the process of normalizing White supremacy, racism, and discrimination (Bonilla-Silva, 2018; Wise, 2010).

Color-blind racial ideology has been studied in different academic fields, such as sociology (e.g., Lewis, 2004; Bonilla-Silva, 2018), education (e.g., Lewis, 2001 Lewis, Chesler, & Forman, 2001), psychology (e.g., Neville, Lilly, Duran, Lee, & Browne, 2000), and in activism (e.g., Wise, 2010). Bonilla-Silva (2001, 2018) coined it color-blind racism, which is defined as a framework through which individuals racially interpret the world around them. He explains that this racially interpretive repertoire is used by the majority of people as it regards racial matters. This interpretive repertoire includes common central frames, styles and storylines. The central frames are the common topics used to sustain the racial order, such as *abstract liberalism* (color-blind justifications), *cultural racism* (using culturally-based arguments to promote color-blindness), *naturalization of racial matters* (normalization of racist practices), and the *minimization of racism* (discounting the role of race/racism). Color-blind styles or racetalk, on the other hand, are the common linguistic ways and rhetorical strategies employed to communicate racial perspectives. Storylines are the common narratives individuals use to justify and sustain racial privilege. These elements work together (as an interpretive repertoire) to racially interpret the world through a color-blind filter, defined as color-blind ideology.

Color-blind ideology has also been studied in the field of psychology (e.g., Neville et al., 2000). Over the last 20 years, the American Psychological Association (APA) published a pamphlet (1997) and a report (Task Force on Preventing Discrimination and Promoting Diversity, 2012) which emphasized, contrary to dominant color-blind beliefs in psychology, that race does matter and encouraged psychologists to learn about race and racial discrimination. Since then, some psychologists have studied racial discrimination and the many ways it is manifested. For example, Helen Neville and her research colleagues (e.g., Neville et al., 2013, 2000) developed a scale to measure color-blind ideology called the Color-Blind Racial Attitudes Scale (Neville et al., 2000) and a corresponding Color-Blind Racial Ideology (CBRI; 2013) framework. The CBRI framework consists of two interrelated dimensions, color-evasion and power-evasion. Color-evasion, as a color-blind strategy, focuses on the idea that "we are all the same" and consequently "do not see race" as a way to claim "we are not racist" using a race-neutral perspective. They argue, this strategy does not reduce racism because it merely ignores the reality of racism. Rather, color-evasion can enhance and perpetuate racism. The second dimension, power-evasion, minimizes the role that power relationships have on racial disparities. Neville et al. (2013) list three different types of power-evasion that characterize CBRI, including "the denial, minimization, and/or distortion of (a) blatant forms of racism…, (b) institutional racism…, and (c) racial privilege…" (p. 458) For example, individuals who state (a) "In this day and age, racism does not matter anymore", (b) "affirmative action unfairly advantages People of Color",

and (c) "people do not receive an unfair amount of advantage because they are White", reflects the ways individuals espouse the three types of power-evasion, respectively. Individuals using a power-evasion strategy believe everyone has equal opportunities to succeed and if a Person of Color does not succeed, then it's that person's fault. The focus on the individual within a framework of equal opportunity and fairness disregards the power relationships that have been at play historically in society, particularly racism. Since power-evasion is used to explain and justify the racial status quo, evading the significance of power relationships and racism, it is considered a color-blind racial ideology strategy. As such, similar to Bonilla-Silva (2018), Neville et al. (2013) have defined CBRI, with a specific focus on power-evasion, as the current dominant racial ideology that conceals how racial inequalities are perpetuated by feigning racial ignorance.

Anyone (i.e., Whites and People of Color) can espouse CBRI, impacting both groups differentially (Neville et al., 2013). Higher levels of CBRI in People of Color is associated with internalized racism whereas greater CBRI in Whites is related to greater racial intolerance, racism, and White emotions (e.g., White fear, White anger, lower levels of cultural empathy). For example, a White teacher who espouses a color-blind perspective will rationalize why she overwhelmingly places children from minoritized racial groups in low performing tracks, when in reality it is about race, specifically her negative academic perceptions of People of Color. Similarly, the fear Whites experience when encountering People of Color, or their fear of being perceived as a racist is heightened with CBRI. Anger is another emotion manifested when Whites, for example, are asked to consider the role racism has played and still play in their lives.

Neville et al. (2013) include racialized emotions in their conceptualization of CBRI, which is not included in Bonilla-Silva's framework. Racialized emotions are the emotions that individuals, including Whites and People of Color, often experience in connection to racial matters, especially when the racial issue contradicts the dominant color-blind framework. In educational psychology, emotions and emotional regulation have been studied concomitantly; however, there is minimal literature examining the dynamics of race, emotions, and emotion regulation among pre-service teachers (Dunbar, Leerkes, Coard, Supple, & Calkins, 2017; Graham, Calloway, & Roemer, 2015; Park, Wang, Williams, & Alegría, 2018).

2.2. Emotions and race

Racial situations or discussions of race can cause individuals to experience a barrage of emotions, particularly unpleasant emotions, and to react in a variety of ways. Individuals embracing color-blind ideology experience discomfort when discussing racial issues, increasing the experience of racial emotions (Cabrera, 2014) or racialized emotions (Bonilla-Silva, 2018). Within education practice and research, color-blind ideology perpetuates norms of whiteness that otherize People of Color (Bonilla-Silva, 2019). Color-blind racial ideology upholds whiteness by insulating individuals from unpleasant race emotions (DiAngelo, 2011). While people of any racial background can ascribe to color-blind ideology, it particularly allows White individuals to protect themselves from critical, self-reflective, and unpleasant emotions. DiAngelo (2011) defines white fragility as the state of white racial equilibrium, where racial triggers lead to defensive emotions of fear, anger, and guilt. Behavior manifestations of these defensive emotions, such as arguing, avoidance by leaving the racially triggered situation, or silence, function to reinstate white racial equilibrium and protect standards of whiteness (DiAngelo, 2011). Hence, critical investigations of racial emotions are essential to disrupting norms of whiteness and challenging the trivialization of systemic racism, especially in schools. In turn, critically examining the racial emotions of pre-service teachers is paramount.

Teachers often experience a variety of emotions in the classroom largely because teaching is a very challenging and emotional job (Lee

et al., 2016; Zembylas, 2003). Previous research has shown that teachers frequently experience a variety of emotions in the classroom as they engage with students, colleagues, administration, and parents. For example, it is not uncommon for teachers to experience pleasant emotions (e.g., enjoyment and pride) when students work hard and make the honor roll; likewise, teachers often experience unpleasant emotions (e.g., anger, and anxiety) when they are pressured by administration to raise standardized test scores or when they encounter a discipline issue with a student (Sutton & Wheatley, 2003; Taxer & Frenzel, 2015; Williams-Johnson et al., 2008).

Although the research literature provides a variety of examples of teacher emotions, there is limited research discussing the relationship between teacher emotions and racial emotions within schools. The existing research has largely explored negative racialized emotional encounters that are experienced by teachers as they encounter growing racial diversity in schools (e.g., Zembylas, 2010a, 2010b, 2011). Also, there has been some work surrounding racial emotions when teachers are faced with a racial discussion or situations while teaching (Matias, 2016). There has, however, been a growing body of research regarding pre-service teachers and the racial emotions they often experience when discussing issues of race in multicultural education courses in teacher education programs. When enrolled in such courses, pre-service teachers, particularly White pre-service teachers, often have difficulty discussing issues of race, especially when discussing issues surrounding white privilege and related constructs (Milner, 2010; Sleeter, 2001; Solomona, Portelli, Daniel, & Campbell, 2005). This difficulty often leads to the experiencing of unpleasant White emotions such as guilt, shame, and anger, among others (Matias & Zembylas, 2014). As such, it is important to explore the processes involved in regulating such emotions.

2.3. Emotion regulation & race

The way one thinks about race and experiences racial emotions is essential to explore. Educational researchers (e.g., Matias, 2016) have shown the role racial emotions play in sustaining color-blind ideology. As such, understanding how individuals, particularly pre-service teachers, utilize emotion regulation strategies to address racial emotions is critical (Gross & John, 2003). Rather than viewing emotions as fleeting and uncontrollable passions (Solomon, 1976), there is a growing understanding that individuals exert a great deal of control over their emotions, using various regulation strategies to influence what emotions they experience and when they experience them (Gross, 1998). Since everyday situations serve as potential triggers for emotions, individuals learn how to regulate their emotions to, for example, achieve their social goals and maintain positive relationships with significant others (Gross & John, 2003). Concerning racial situations, the goal for emotion regulation is to determine the desired outcome and regulate emotions to achieve it.

Gross and John (2003) process model of emotion regulation demonstrates individual emotion regulation across a timeline of the developing emotional response. The emotion regulation process begins with a situation that triggers the emotion regulation process. Once the situation is cognitively attended to and evaluated upon, it triggers a set of response tendencies involving experiential, behavioral, and physiological systems. These response tendencies can be adjusted in various ways. As emotion regulation is a process, emotion regulation strategies are distinguished based upon when they have the strongest impact in the process (Gross & John, 2003).

For the present study, we specifically examine cognitive reappraisal and expressive suppression under Gross and John (2003) process model of emotion regulation. Reappraisal is an antecedent-focused regulation strategy, occurring early in the emotion regulation process to alter subsequent emotions and responses. Reappraisal can effectively reduce the behavioral and experiential tendencies of negative emotions. Alternatively, suppression is a response-focused strategy occurring late in

the emotion regulation process, to modify behavioral responses, but does not reduce the experiencing of negative emotions.

Furthermore, difficulties with emotion regulation have also been researched for clinical purposes. Gratz and Roemer (2004) developed the Difficulties in Emotion Regulation Scale (DERS) to measure difficulties with emotion regulation processes in clinical settings. The DERS conceptualizes emotion regulation as not only the modulation of emotional arousal, but also the awareness, understanding, and acceptance of emotions in the ability (and lack of ability) to respond to situations in desired ways. Gratz and Roemer's findings revealed six dimensions of difficulties in emotion regulation, including lack of awareness of responses, lack of clarity of responses, nonacceptance of responses, limited access to emotion regulation strategies, difficulty controlling impulses when experiencing negative emotions, and difficulties engaging in goal-directed behavior when experiencing negative emotions. The six dimensions are related, but distinct in reflecting various difficulties in emotion regulation. Although our current study is not within a clinical context, race-based situations can elicit unpleasant emotions, potentially reflecting difficulties within emotion regulation processes. Specifically, studying pre-service teachers' color-blind racial ideology and difficulties in emotion regulation is significant in understanding how this impacts pre-service teachers' ability to change negative thoughts regarding racially diverse students.

2.4. Inflexibility with stigmatizing thoughts about race

Stigma is the process of perceiving some type of characteristic or indicator negatively by the observer. The observer's negative perception of such characteristic or indicator produces negative attitudes towards an individual or group that functions to degrade, discredit, and humiliate (Thornicroft, Rose, Kassam, & Sartorius, 2007). As such, scholars have found that the process of stigmatization can be caused by ignorance, prejudice, and discrimination manifested as problems of knowledge, attitudes, and behavior respectively (Thornicroft et al., 2007). For example, many groups or individuals have been stigmatized because of their race. The observer engages in the process of stigmatization leading to stigmatizing thoughts, which could be caused by ignorance manifested as a problem of knowledge (e.g., the belief that White people are more intelligent than Black people), by prejudice (e.g., I do not trust Black people) manifested as a problem of negative attitudes, or by discrimination (e.g., I will not hire a Black person) manifested as a problem of behavior.[1] Researchers (e.g., Levin, Luoma, Lillis, Hayes, & Vilardaga, 2014) interested in studying stigma and stigma reduction have worked to identify the psychological processes that influence stigma (as a generalized process) in order to target these processes through interventions, focusing on psychological inflexibility and flexibility.

Psychological inflexibility and flexibility are processes that have been shown to be related to stigmatizing thoughts and actions (Levin et al., 2014). Psychological inflexibility is defined as "patterns of behavior in which actions are rigidly guided by internal experiences (i.e., thoughts, feelings, and urges), rather than personal values or direct contingencies" (Levin et al., 2016, p. 181). These sources of inflexibility stem from experiential avoidance (i.e., avoidance and suppression of internal experiences) and cognitive fusion (i.e., dominating thoughts in order to control actions). For example, a teacher sees that a Black student has been increasingly misbehaving in class. When operating from psychological inflexibility, the teacher would draw upon the stereotypes of Black boys as being more aggressive, choose to ignore the

student's past non-aggressive behavior or positive interactions with the student, consider the student's current behavior as his new way of behaving, view the student's current behavior as a major offence, and then decide to send the student to the principal's office for suspension. On the other hand, psychological flexibility is the ability to act independently from one's internal experiences and overcome psychological barriers. More specifically, psychological flexibility is "the capacity to engage in valued patterns of activity, independent of the internal experiences that may arise" (Levin et al., 2016, p. 181). The sources of flexibility stem from mindfulness and acceptance. For example, when engaging in psychological flexibility, that same teacher in the aforementioned example would interpret the actions of the Black student. Although aware of all of the stereotypes of Black boys as being aggressive, she would tell herself to ignore or even challenge her own thinking regarding the stereotypes. Then, the teacher would consider the student's non-aggressive past behavior and choose to see the change in behavior as a sign of potential problems rather than a new pattern of behavior. She would instead talk to the student or send the student to the counselor's office.

Levin et al. (2014, 2016) believe that psychological inflexibility may be a key factor in the generalized process of promoting stigma and developed scales to measure psychological flexibility and inflexibility to better understand their relationship to stigma. They found a strong positive relationship between psychological inflexibility and higher levels of stigma. Similarly, Krafft, Ferrell, Levin, and Twohig (2018) conducted a meta-analysis which indicated a significant positive correlation between stronger levels of psychological inflexibility and more stigmatizing thoughts. Better understanding the role that psychological inflexibility plays will help predict the level of stigma and individuals' ability to act upon it.

3. Current study

We posit the way one thinks about race will impact the way one manages racial emotions and in turn influence one's inflexibility with stigmatizing thoughts about race. For example, a White pre-service teacher is in a multicultural education course where the professor is discussing the role race plays in inequitable distribution of school resources, including the privileges White students in the class have received and how People of Color have suffered directly from it. This student will then choose *how* to regulate his/her emotions in response to the discussion of inequitable distribution of resources. A student who espouses color-blind racial ideology, may employ *suppression* to reduce behavioral expression by masking feelings of rage and anger at being called out for receiving unearned privileges, and responding matter-of-factly that race does not matter because everyone can work hard and be successful. The students' espousal of color-blind racial ideology may impact his/her racially-situated behavior in upholding values of meritocracy. We also contend that this ultimately influences the student's stigmatizing thoughts towards race. Rather than practicing empathy or accepting alternative viewpoints, this student's response to the discussion of racial inequity is rigidly bounded to individual beliefs of meritocracy and feelings of rage and anger. As demonstrated in our scenario, the pre-service teacher employed suppression as an emotion regulation strategy to reduce the behavioral expression of negative emotions through defending ideals of meritocracy in the discussion, but this did not decrease the student's experience of feeling negative emotions of rage and anger. Also, the student was not able to take on perspectives counter to one's own, thereby exhibiting psychological inflexibility. While this scenario of a pre-service teacher's psychological inflexibility with stigmatizing thoughts about race only impacted this individual's racially-situated emotions and behavior, once in the classroom, a teacher's psychological inflexibility with stigmatizing thoughts about race can potentially create detrimental repercussions for students. Given the critical role emotion regulation strategies can play in determining behavioral responses and stigmatizing thoughts, it is

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[1] It must be noted that stigmatizing thoughts, as conceptualized in this study, are similar to other constructs such as prejudice or prejudicial thoughts/beliefs. However, as a means of maintaining fidelity and addressing construct validity (Kline, 2015), we use the same terminology as conceptualized by Levin et al. (2014).

necessary to more thoroughly investigate the relationships between racial ideology, emotion regulation, and inflexibility with stigmatizing thoughts about race.

To the authors' knowledge, no other study has examined the relationship between color-blind racial ideology, emotion regulation, and psychological inflexibility with stigmatizing thoughts about race, particularly among pre-service teachers. We postulate the relationship between racial ideology and emotion regulation to be a direct relationship, where racial ideology influences emotion regulation and emotion regulation simultaneously influences racial ideology. Also, color-blind ideology has the potential to directly influence individuals' psychological inflexibility with stigmatizing thoughts about race. However, psychological inflexibility (i.e., the psychological process of accepting negative thoughts and acting upon stigma) involves some elements of emotion regulation, since stigma can elicit strong emotions. As such, emotion regulation influences psychological inflexibility with stigmatizing thoughts (see Fig. 1 for our general model).

In order to investigate these relationships, we explored three questions. First, we addressed the following: does color-blind racial ideology and emotion regulation predict psychological inflexibility with stigmatizing thoughts about race in pre-service teachers? We hypothesized that color-blind racial ideology and difficulty in regulating emotions (lack of emotional clarity, difficulty controlling impulses, and suppression) will predict psychological inflexibility because inflexibility involves negative thinking that is often involved when individuals have difficulty engaging in emotion regulation.

As a follow-up to the first research question, we addressed two additional questions. For question two we asked: does difficulty with emotion regulation mediate the relation between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race in pre-service teachers? Similarly for question three we asked: does difficulty with emotion regulation moderate the relation between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race in pre-service teachers? Because we viewed emotion regulation as central to explaining how students engaged in psychological inflexibility with stigmatizing thoughts about race, it was important for us to look specifically at the role that emotion regulation plays. We hypothesized that difficulty with emotion regulation (e.g., lack of emotional clarity, difficulty controlling impulses, and suppression) mediated and moderated the relationship between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race. Ultimately, if students embraced a color-blind ideology and had difficulties regulating their emotions, this would negatively influence how they felt about other racial groups, and in this case, impact/strengthen their psychological inflexibility with stigmatizing thoughts about race.

4. Method

4.1. Participants and procedures

We originally recruited a sample of 255 students (159 education majors and 96 non-education majors) to participate in the study from two large, southeastern predominantly White universities. We recruited participants in their introduction to educational psychology courses over three semesters. These courses were chosen because all education majors are required to take these courses as a part of their respective programs. However, the educational psychology course is also open to students that are not education majors. As such, non-education majors (e.g., engineering, biology, sociology, and psychology) constituted a portion of our original sample. Extra credit class points were given for participating in the study. Research study participation is strongly recommended or even required in these courses. However, we were interested in the experiences of education (pre-service teachers) and focus exclusively on the pre-service teachers' experiences in this article.

As such, for the 159 pre-service teachers, 81% of respondents were

Table 1
Participant description.

Items	Frequency (n = 159)	Percent (%)
Race		
African American/Black	8	5.00
Asian/Pacific Islander	8	5.00
Hispanic/Latino	9	6.00
Native American	1	0.60
White	129	81.10
Other	4	2.50
Gender		
Female	116	73.00
Male	43	27.00
Diversity Class		
Yes	71	55.30
No	88	44.70

White, 5% African American, 5% Asian/Pacific Islander, 5% Hispanic/Latino, 1% Native American, and 3% Other (including Multiracial). Additionally, most of the students were sophomores (47%), juniors (37%) or seniors (12%). See Table 1 for description. The majority White context of this study is important to consider. Within a predominately White institution, it may be easier to avoid racially charged situations that would disrupt norms of whiteness. The majority White sample drawn from a majority White population is a noteworthy influence in understanding pre-service teachers' color-blind racial ideology, emotion regulation, and reconciliation of stigmatizing thoughts about race. Also, the predominately White sample is reflective of the current racial demographics of the teaching field and the pre-service populations of the study's contexts (National Center for Education Statistics, 2018).

4.2. Measures

All data was collected using Qualtrics, an online survey tool. When completing the surveys, participants were asked to respond in terms of interacting with other racial groups or to reflect in terms of what they would think or feel when encountering a racial situation.

Demographics Questionnaire. The demographics questionnaire asked about a variety of personal demographics such as race, gender, major, and academic classification. Additional questions addressed school and work experiences regarding diversity.

Color-Blind Racial Attitudes Scale. In order to measure color-blind racial ideology, we utilized the Color-Blind Racial Attitudes Scale (CoBRAS), based upon the work of Neville and colleagues (2000). The CoBRAS was designed to assess the manner in which individuals internalize color-blind racial ideology and exhibit color-blind racial attitudes. Specifically, the scale assesses color-blind racial attitudes in terms of three key areas. The first area, unawareness of racial privilege, focuses on the lack of awareness individuals have concerning the role race plays in racially privileging some over others (e.g., "White people in the U.S. are discriminated against because of the color of their skin"). The second area, institutional discrimination, measures an individuals' lack of the awareness of privilege at the institutional or structural level due to race and racism (e.g., "Social policies, such as affirmative action, discriminate unfairly against White people"). The last area, blatant racial issues, addresses the unawareness of the blatant racial discrimination that occurs in society (e.g., "Racism may have been a problem in the past, it is not an important problem today"). The CoBRAS has 20 Likert-formatted items, with a scoring of 1 (strongly disagree) to 6 (strongly agree).

After the appropriate individual items were reverse scored on each subscale, composite scores were created by averaging the scores of each subscale, creating subscale means. We then conducted an EFA and a reliability analysis (Cronbach's Alpha). We utilized the CoBRAS' three subscales (Neville et al., 2000): racial privilege (7 items; α = 0.88), institutional discrimination (7 items; α = 0.83), and blatant racial

issues (6 items; α = 0.82). A 3-factor solution explained 50.82% of the variance.

Emotional Regulation Questionnaire. The Emotional Regulation Questionnaire (ERQ-9) assesses two areas of emotion regulation including reappraisal, an antecedent-focused strategy that can impact the emotion trajectory (e.g., "When I want to feel more positive emotion, I change the way I'm thinking about the situation"), and suppression, a response-focused strategy that modifies the behavioral response of the emotion response (e.g., "When I am feeling negative emotions, I make sure not to express them") (Gross & John, 2003). The ERQ-9 has 9 Likert-formatted items, with scores ranging from 1 (strongly disagree) to 7 (strongly agree). Composite scores were created by averaging the scores of each subscale, creating subscale means. We then conducted an EFA and a reliability analysis (Cronbach's Alpha). A 2-factor solution explained 49.73% of the variance: suppression (4 items; α = 0.75) and reappraisal (5 items; α = 0.85).

Difficulties in Emotion Regulation. We utilized four subscales from the Difficulties in Emotion Regulation (DERS). The DERS takes a different approach to examining emotion regulation as it focuses on individuals' difficulty in emotion regulation. We focused on the lack of emotional clarity (e.g., "I am confused about how I feel"), the lack of emotional awareness (e.g., "I am attentive to my feelings"), impulse control difficulties (e.g., "When I'm upset, I become out of control"), and the nonacceptance of emotional responses (e.g., "When I'm upset, I feel ashamed with myself for feeling that way"). The DERS has 23 Likert-formatted items, with scores ranging from 1 (almost never) to 5 (almost always).

After the appropriate individual items were reverse scored on the lack of emotional clarity, the lack of emotional awareness, and the impulse control difficulties subscales, composite scores were created by averaging the scores of each subscale, creating subscale means. We then conducted an EFA and a reliability analysis (Cronbach's Alpha). A four-factor solution explained 56.15% of the variance focusing on the following subscales: clarity (5 items; α = 0.81), awareness (6 items; α = 0.82), impulse (6 items; α = 0.82), and nonacceptance (6 items; α = 0.89) (Gratz & Roemer, 2004).

Acceptance and Action Questionnaire – Stigma. This last scale measured stigmatizing thoughts about race. The Acceptance and Action Questionnaire – Stigma (AAQ-S) was designed to capture individuals' ability to be accepting or not accepting towards stigmatizing thoughts about racial and ethnic diversity issues (Levin et al., 2014). The AAQ-S has 21 Likert-formatted items, with scores ranging from 1 (never true) to 7 (always true). For this study, we utilized the psychological inflexibility subscale (11 items; α = 0.89) of the AAQ-S. The psychological inflexibility subscale focuses on individuals' inability to be aware of their negative beliefs (e.g., "I feel that my prejudicial thoughts are a significant barrier to me being culturally sensitive.", "I have trouble not acting on my negative thoughts about others."). After the appropriate individual items were reverse scored on the subscale, composite scores were created by averaging the scores and creating a subscale mean. We then conducted an EFA and a reliability analysis (Cronbach's Alpha). A one-factor solution explained 41.69% of the variance for the subscale.

5. Results

5.1. Descriptive statistics and correlation analyses

After the data was collected and cleaned, we conducted a variety of data analyses to address the research questions including descriptive statistics, reliability analyses, Pearson's product moment correlation analyses, hierarchical regression analyses, mediation, and moderation analyses. Descriptive statistics and correlations are presented in Table 2.

We engaged in correlation analyses which revealed interesting but expected trends in most cases. There were positive relationships between pre-service teachers who espoused color-blind racial ideology

and psychological inflexibility. For example, there were positive relationships between inflexibility and both institutional discrimination, $r(157) = 0.33$, $p < .01$, and blatant racial issues, $r(157) = 0.30$, $p < .01$. This suggests as pre-service teachers embraced color-blind ideology, there was an increase in inflexibility. This is possible because inflexibility involves having an awareness of one's racial ideology. In addition, there were significant relationships between difficulties in emotion regulation[2] and psychological inflexibility. Specifically, there were positive relationships between inflexibility and lack of emotional clarity, $r(157) = 0.31$, $p < .01$, impulse control difficulties, $r(157) = 0.51$, $p < .01$, nonacceptance of emotional responses, $r(157) = 0.30$, $p < .01$, and suppression, $r(157) = 0.16$, $p < .05$. These relationships suggest that as pre-service teachers experienced an increase in difficulties regulating their emotions, they also illustrated an increase in both inflexibility with stigmatizing thoughts. Also, there existed inverse relationships with emotion reappraisal strategies, suggesting that as inflexibility, $r(157) = -0.17$, $p < .05$, increased, the use of emotion reappraisal strategies decreased. However, not surprisingly, there were positive relationships between color-blind ideology and difficulties in emotion regulation, particularly suppression. We found strong relationships between suppression and unawareness of racial privilege, $r(157) = 0.79$, $p < .01$, institutional discrimination, $r(157) = 0.75$, $p < .01$, and blatant racial issues, $r(157) = 0.68$, $p < .01$. This means that as teachers embraced color-blind ideology, they strongly engaged in suppression as an emotion regulation strategy.

5.2. Hierarchical regression analysis

Because limited research exists examining the relationship between color-blind racial ideology and emotion regulation on psychological inflexibility with stigmatizing thoughts, it was necessary to engage in model building. As such, in order to address the first research question which examines whether color-blind racial ideology and emotion regulation predicts psychological inflexibility, we conducted hierarchical regression analyses and found several relevant models to describe the relationships (see Table 3). Separate series of analyses were conducted to predict psychological inflexibility with stigmatizing thoughts. In creating the models, demographic variables including race, gender, and diversity class (previous diversity course experience) were added to the first block. These variables were dummy coded (e.g., White/non-White, man/woman, and no diversity class/diversity class). The second block focused on the CoBRAS subscales while the third block focused on the emotion regulation subscales from both the ERQ and the DERS. Adding the predictors in blocks two and three generated models that had statistically significantly better fits than the first block. In fact, adding the third blocks created the best model. The adjusted R^2 for psychological inflexibility with stigmatizing thoughts for the three models were 0.01, 0.21, and 0.38, respectively.

In predicting psychological inflexibility with stigmatizing thoughts (see Table 3), model 3 more closely addressed our hypothesis and explained more of the variance, $R^2 = 0.38$, $F(12, 146) = 9.10$, $p < .001$. However, only a few variables within model 3 were statistically significant. Specifically, unawareness of racial privilege, $b = -0.34$, $t(146) = -3.95$, $p < .001$, institutional discrimination, $b = 0.29$, $t(146) = 2.72$, $p < .001$, and blatant racial issues, $b = 0.30$, $t(146) = 3.23$, $p < .001$, measuring color-blind racial ideology, as well as lack of emotional clarity, $b = 0.17$, $t(146) = 1.99$, $p < .05$, and impulse control difficulties, $b = 0.33$, $t(146) = 4.30$, $p < .001$, both measuring difficulties in emotion regulation. This finding suggests as pre-service teachers, influenced by race, embraced color-blind racial ideology, they had difficulty regulating their emotions, and were more

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[2] For ease of discussion, Suppression, although a part of the Emotion Regulation Questionnaire and not the Difficulties in Emotion Regulation (DERS) is grouped with the "difficulties in emotion regulation" constructs.

Table 2
Correlation matrix and descriptive statistics.

Variables	URP	ID	BRI	PI	LEC	LEA	ICD	NER	REAP	SUPP
URP	–									
ID	0.64**	–								
BRI	0.62**	0.66**	–							
PI	0.00	0.33**	0.30**	–						
LEC	0.05	0.11	0.10	0.31**	–					
LEA	0.20*	0.15	0.23**	0.12	0.55**	–				
ICD	0.08	0.24**	0.18*	0.51**	0.36**	0.09	–			
NER	0.06	0.21**	0.13	0.30**	0.40**	0.18*	0.42**	–		
REAP	0.01	−0.04	0.02	−0.17*	−0.25**	−0.28**	−0.13	−0.04	–	
SUPP	0.79**	0.75**	0.68**	0.16*	0.19*	0.32**	0.10	0.17*	−0.06	–
M	3.21	2.96	2.17	2.52	2.10	2.32	1.72	2.21	4.37	2.82
SD	1.04	0.88	0.79	0.90	0.78	0.81	0.69	0.90	0.77	0.96
α	0.88	0.83	0.82	0.89	0.81	0.82	0.82	0.89	0.85	0.75

Note. URP = Unawareness of Racial Privilege; ID = Institutional Discrimination; BRI = Blatant Racial Issues; PI = Psychological Inflexibility; LEC = Lack of Emotional Clarity; LEA = Lack of Emotional Awareness; ICD = Impulse Control Difficulties; NER = Nonacceptance of Emotional Responses; REAP = Reappraisal; SUPP = Suppression.

  * Correlation is significant at the 0.05 level (2-tailed).
  ** Correlation is significant at the 0.01 level (2-tailed).

Table 3
Hierarchical multiple regression analyses predicting psychological inflexibility from colorblind racial identity and emotion regulation.

Predictor	B	SE	ß	p
Model 1				
Constant	2.53	0.15		< 0.001
Race	0.34	0.18	0.15	0.06
Gender	−0.14	0.16	−0.07	0.37
Diversity	0.09	0.14	0.05	0.55
Model 2				
Constant	1.47	0.31		< 0.001
Race	0.25	0.17	0.11	0.16
Gender	0.13	0.15	0.06	0.40
Diversity	0.04	0.13	0.02	0.77
Unawareness of Racial Privilege	−0.36	0.09	−0.34	< 0.001
Institutional Discrimination	0.43	0.11	0.42	< 0.001
Blatant Racial Issues	0.36	0.12	0.31	< 0.01
Model 3				
Constant	1.23	0.50		< 0.05
Race	0.21	0.16	0.09	0.19
Gender	0.11	0.14	0.05	0.44
Diversity	−0.01	0.12	−0.01	0.94
Unawareness of Racial Privilege	−0.30	0.10	−0.34	< 0.01
Institutional Discrimination	0.30	0.11	0.29	< 0.01
Blatant Racial Issues	0.35	0.11	0.30	< 0.01
Lack of Emotional Clarity	0.20	0.10	0.17	< 0.05
Lack of Emotional Awareness	−0.07	0.09	−0.06	0.43
Impulse Control Difficulties	0.43	0.10	0.33	< 0.001
Nonacceptance of Emotional Responses	0.02	0.07	0.02	0.78
Reappraisal	−0.12	0.08	−0.10	0.13
Suppression	−0.02	0.13	−0.02	0.86

Note. All variables were mean-centered.

likely to embrace psychological inflexibility with stigmatizing thoughts. This finding supported our prediction.

5.3. Mediation analysis

In order to further understand the relationships between the variables of interest, more specifically to address research questions two and three, we conducted a series of mediation and moderation analyses. For the mediation analysis, research question two, we wanted to assess the mediating effect of emotional regulation (e.g., reappraisal) and difficulties in emotion regulation (e.g., lack of emotional clarity) on the relationship between the three components of color-blind racial ideology (i.e., unawareness of racial privilege, institutional discrimination, and blatant racial issues) and psychological inflexibility with stigmatizing thoughts. We hypothesized that emotion regulation

mediated the relationship between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts. In order to test our hypothesis, we employed Hayes (2018) mediation procedure using PROCESS, a SPSS macro program developed by Preacher and Hayes (2004, 2008), that tests the significance of indirect effects. There are three requirements necessary to claim a mediation effect (Preacher & Hayes, 2008). First, there should be a significant correlation between the independent variable and the mediator. Second, the dependent variable should be significantly correlated to the mediator. Third, the indirect effect of the independent variable on the dependent variable should be statistically different than zero.

Accordingly, we conducted a mediation analysis and confirmed the three requirements aforementioned to claim mediation. As such, we determined a few significant correlations between independent variables (unawareness of racial privilege, institutional discrimination, and blatant racial issues) and possible mediators, such as suppression, an emotional regulation strategy, and difficulties in emotion regulation (lack of emotional awareness, impulse control difficulties, and the nonacceptance of emotional responses). Of those possible mediators, nonacceptance of emotional responses, impulse control difficulties, and the emotion regulation strategy suppression significantly correlated with psychological inflexibility. We used SPSS PROCESS (Hayes, 2013) to calculate the indirect effects of color-blind ideology on psychological inflexibility, which included 5000 bootstrapped samples. The overall model accounted for a significant amount of variance in psychological inflexibility, $R^2 = 0.06$, $F(2, 156) = 5.37$, $p < .01$. Suppression, $b = 0.42$, $t(157) = 3.28$, $p < .01$, as an emotional regulation strategy, was associated with an increase in psychological inflexibility. The indirect effect of unawareness of racial privilege (color-blind racial ideology) on psychological inflexibility with suppression as an emotion regulation strategy, $b = 0.34$, $SE = 0.13$, was statistically different from zero, with a confidence interval that was above zero, 95% CI [0.03, 0.24] (see Fig. 2 for a conceptual diagram). The findings supported our hypothesis; suppression as an emotion regulation strategy, had a mediating effect on the relationship between unawareness of racial privilege (color-blind racial ideology) and psychological inflexibility.

5.4. Moderation analysis

In order to address research question three, we hypothesized and wanted to determine whether difficulties in emotion regulation (e.g., lack of emotional clarity) moderated the relationship between the three components of racial ideology (i.e., unawareness of racial privilege,
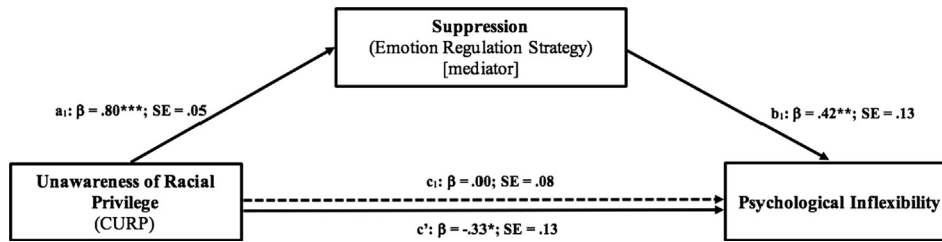
Fig. 2. Standardized meditational pathway from Unawareness of Racial Privilege to Psychological Inflexibility via suppression. *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed). ***Correlation is significant at the 0.001 level (2-tailed).

institutional discrimination, and blatant racial issues) and psychological inflexibility with stigmatized thoughts. In order to test our hypothesis, we employed Hayes (2018) moderation procedure using PROCESS, a SPSS macro program developed by Preacher and Hayes (2004, 2008), that tests the significance of the interaction term. With this method, moderation occurs if the interaction term (independent variable × moderator variable) has a significant coefficient.

In the moderation analysis, we wanted to determine whether each independent variable (i.e., unawareness of racial privilege, institutional discrimination, and blatant racial issues), with each moderating variable (e.g., lack of emotional clarity) predicted psychological inflexibility. In the first step in the analysis, we found that the independent variable, blatant racial issues (one of the components of color-blind racial ideology), and the moderator variable, lack of emotional clarity, accounted for a significant amount of variance in psychological inflexibility, $R^2 = .17$, $F(2, 156) = 16.40$, $p < .001$. The interaction term between the independent variable, blatant racial issues (one of the components of color-blind racial ideology), and the moderator variable, lack of emotional clarity, accounted for a significant proportion of variance in psychological inflexibility with stigmatizing thoughts, $\Delta R^2 = .03$, $\Delta F(1, 155) = 5.75$, $p < .05$, $b = 0.18$, $t(155) = 2.40$, $p < .05$ (see Fig. 3). To examine the significant moderating effects, we calculated the simple slopes of a component of color-blind ideology (blatant racial issues) at low (one SD below the mean), average (the mean) and high (one SD above the mean) levels of difficulty regulating emotions (lack of emotional clarity; see Fig. 4).

The difference in slopes between pre-service teachers' color-blind ideology (blatant racial issues) and psychological inflexibility were statistically significant for people who scored high, $b = .45$, $t(155) = 4.44$, $p = < .001$, or average, $b = .27$, $t(155) = 3.82$, $p = < .001$, for difficulties regulating emotions (lack of emotional clarity). There was a strong relationship between pre-service teachers' color-blind ideology and psychological inflexibility when the relationship was moderated by high or average level of difficulties regulating emotions (lack of emotional clarity). The strength of the relationship at low levels of difficulties regulating emotions (lack of emotional clarity) was weaker (and the difference in slopes was not statistically significant), $b = .10$, $t(155) = .91$, $p = .36$.

Similarly, we ran a moderation analysis to determine whether color-blind ideology (institutional discrimination) and the moderator variable, impulse control difficulties, predicted psychological inflexibility. In the first step in the analysis, we found that the independent variable,
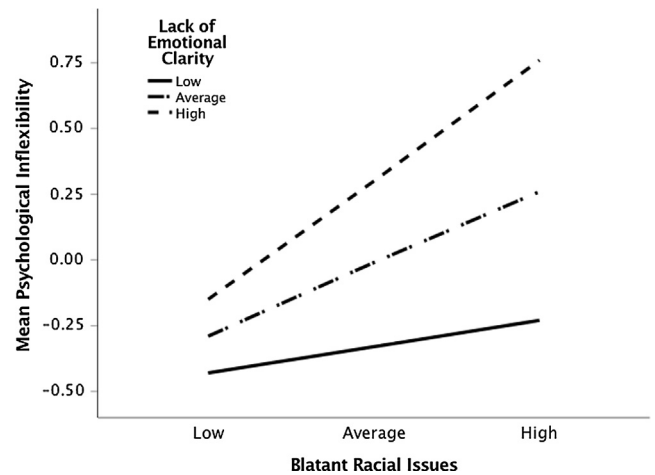

Fig. 4. Simple slopes graph of Psychological Inflexibility by blatant racial issues by lack of emotional clarity.

a component of color-blind racial ideology (institutional discrimination), and the moderator variable, impulse control difficulties, accounted for a significant amount of variance in psychological inflexibility, $R^2 = .31$, $F(2, 156) = 34.26$, $p < .001$. The interaction term between institutional discrimination and impulse control difficulties, accounted for a significant proportion of variance in psychological inflexibility with stigmatizing thoughts, $\Delta R^2 = .04$, $\Delta F(1, 155) = 9.10$, $p < .01$, $b = 0.22$, $t(155) = 3.02$, $p < .01$ (see Fig. 5). We also examined the moderating effects of the model by calculating the simple slopes of a component of color-blind ideology (institutional discrimination) at low (one SD below the mean), average (the mean) and high (one SD above the mean) levels of difficult emotion regulation (impulse control difficulties; see Fig. 6). The difference in slopes between pre-service teachers' color-blind ideology (blatant racial issues) and psychological inflexibility were statistically significant for people who scored high, $b = .45$, $t(155) = 4.43$, $p = < .001$, or average, $b = .24$, $t(155) = 3.51$, $p = < .001$, for difficulties regulating emotions (impulse control difficulties). Similar to our conclusions from the previous model, there was a strong relationship between pre-service teachers' color-blind ideology and psychological inflexibility when the relationship was moderated by high or average level of difficulties
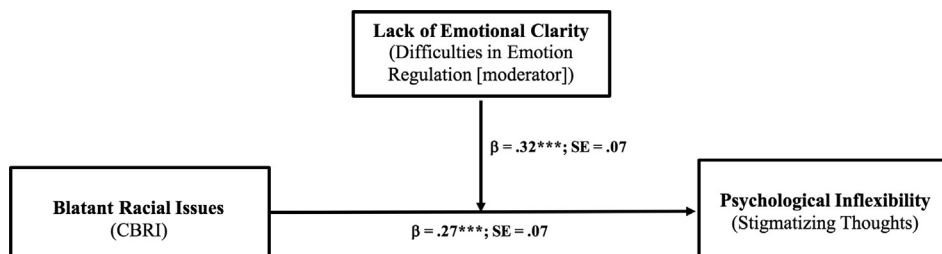

Fig. 3. Difficulties in emotion regulation as moderator in the association between Blatant Racial Issues and Psychological Inflexibility.
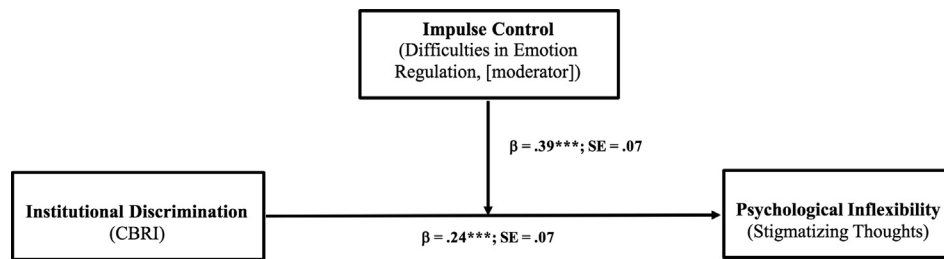
Fig. 5. Emotion Regulation strategy as moderator in the association between Institutional Discrimination and Psychological Inflexibility.
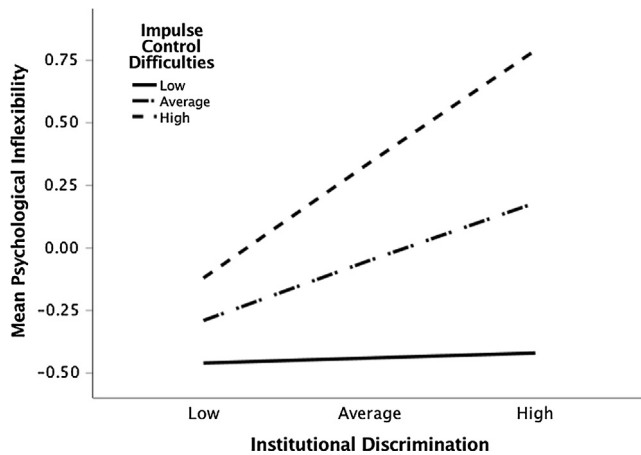

Fig. 6. Simple slopes graph of Psychological Inflexibility by Institutional Discrimination by impulse control difficulties.

regulating emotions (impulse control difficulties). The strength of the relationship at low levels of difficulties regulating emotions (impulse control difficulties) was weaker (and the difference in slopes was not statistically significant), $b = .02$, $t(155) = .20$, $p = .84$.

In order to further address research questions two and three, we also conducted moderated mediation analyses for the significant mediating relationship found previously. Specifically, we wanted to determine whether the mediation effect of the independent variable (unawareness of racial privilege) on psychological inflexibility through the mediating variable suppression (emotional regulation strategy) was moderated by a moderating variable (i.e., emotional regulation strategy and difficult emotion regulation). We did not find any statistical significance.

6. Discussion

The current study contributes to our understanding of the intricate role that race and racism can play in relation to emotion regulation and adds to the limited body of research literature in that area (Dunbar et al., 2017; Graham et al., 2015; Park et al., 2018). Specifically, our analyses highlighted the complex relationships between color-blind racial ideology, emotion regulation, and the psychological inflexibility with stigmatizing thoughts. Several of our hypotheses regarding the variables of interest were confirmed while others were not confirmed. Overall, we found that color-blind racial ideology and emotion regulation/difficulties with emotion regulation predicted one's inflexibility with stigmatizing thoughts about race. However, most notably, difficulties with emotion regulation were key to the relationship.

Our initial research question concerned the overall relationship between the variables of interest. In order to address this research question, we engaged in a series of hierarchical regressions. We correctly hypothesized that color-blind racial ideology and difficulties with emotion regulation would predict psychological inflexibility with stigmatized thoughts about race. Pre-service teachers that espoused color-blind racial ideology and struggled regulating their emotions predicted

psychological inflexibility with stigmatized thoughts about race or the difficulty in changing one's beliefs about race (Levin et al., 2016).

Our second and third research question involved examining if there were mediating or moderating relationships between the variables of interest. We successfully hypothesized that difficulties in emotion regulation mediated the relationship between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race. The understanding was that there would be a direct relationship between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race, in that pre-service teachers who embraced color-blind racist beliefs would most likely have difficulty changing their thoughts about race. Further, we postulated that those same pre-service teachers would have difficulty regulating their emotions. Because of this, we believed that difficulties with emotion regulation could also function as a mediator. In this case, the emotion regulation strategy of suppression served as a mediator as predicted to unawareness of racial privilege and psychological inflexibility. This is an interesting finding in that pre-service teachers' unawareness of racial privilege influenced their psychological inflexibility through the mediation of suppression. This leads us to question the ways pre-service teachers use suppression with regards to racial situations and how this strategy can help support rather than resist psychological inflexibility. Ultimately, suppressing one's emotions about race allows one to maintain beliefs about racism such as beliefs about racial privilege.

Another surprising finding was that difficulties with emotion regulation also moderated the relationship between color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race. More specifically, the lack of emotional clarity strengthened the relationship between blatant racial issues and psychological inflexibility. Also, difficulties controlling impulses enhanced the relationship between beliefs regarding institutional discrimination and inflexibility. This means that pre-service teachers who had strong color-blind racial beliefs and were unclear about their emotion regulation were less likely to change their negative beliefs about race.

Ultimately, this study indicated that as pre-service teachers embraced color-blind racial ideology and had difficulties in emotion regulation, this influenced their ability to address their stigmatizing thoughts about race which includes the process of acting on racial stigma. Difficulties in emotion regulation such as the lack of emotional clarity, difficulty controlling impulses, and suppression often influenced psychological inflexibility with stigmatized thoughts about race. The pre-service teachers in this study experienced color-blind racist thoughts and experienced difficulties in emotion regulation but were not able to change their thought processes regarding race. They were psychologically inflexible rather than flexible. As such, the ability to engage in emotion regulation, particularly appraisal, is potentially imperative to developing psychological flexibility with stigmatizing thoughts about race as well as the actions associated with those beliefs.

6.1. Implications

The findings of this study provide important implications for education. First, it is important for pre-service teachers to understand their racial ideology. Most people do not know that they see the world from a

color-blind perspective. Moreover, most individuals do not feel that anything is wrong with embracing a color-blind perspective. In fact, in a lot of arenas, racial color-blindness is promoted and encouraged. However, color-blind perspectives can be detrimental to People of Color because it minimizes the impact of systemic racism, including in the education arena. Schools are continually becoming more racially diverse. In fact, some school systems currently consist of a majority of Students of Color (National Center for Education Statistics, 2019). However, the teaching force continues to be majority White (National Center for Education Statistics, 2018). Because of this, teachers (mostly White) need to understand how they treat their students (becoming more diverse) and if their treatment may be leading to deficit based thinking or differential treatment based upon race.

Next, we need pre-service teachers to better understand that because of one's racial ideology, racial situations can easily become contentious and involve a barrage of unpleasant emotions. As such, it is important for pre-service teachers to understand the role that emotion regulation plays in impacting race-related behavior. As indicated by the results of our study, the ability to engage (or not engage) in emotion regulation is central to how pre-service teachers will react to a race-related situation in schools. The question is do pre-service teachers know how to effectively regulate their emotions in the classroom when faced with racial situations in schools? Do they know how to utilize the appropriate emotion regulation strategies when faced with racial situations? Teacher educators can guide pre-service teachers to change or challenge stigmatizing thoughts about race in schools through developing their understanding of emotion regulation. However, not all emotion regulation strategies are the same. Pre-service teachers that fully embrace color-blind racial thoughts and tend to engage in psychological inflexibility should try to avoid difficulties with emotion regulation (lack of emotional clarity, suppression, etc.). These approaches focus on the inability to regulate emotions and would only help to exacerbate race-related situations in schools, most likely increasing the chances of conflict. On the other hand, pre-service teachers that experience less color-blind racial thoughts would benefit from utilizing more positive regulation strategies such as emotion reappraisal strategies. These strategies could help pre-service teachers to be more aware of their emotions and potentially can have a positive impact on how they think about race-related situations in schools.

Lastly, we need to consider the potential influence of stigmatizing thoughts about race on pre-service teacher's actions in schools. Most people have never considered how their thoughts about race often lead to their actions (or inactions) in racial situations. If a pre-service teacher embraces color-blind racial ideology and experiences difficulties in emotion regulation, he/she will most likely engage in psychological inflexibility and act upon his/her stigma/negative racial beliefs in the classroom. Unfortunately, this is the pattern that was established in the various analyses that were conducted in our study. This is alarming that pre-service teachers are having problems changing their thoughts about racial groups. This could have deleterious impacts in classrooms once they become classroom teachers. Although not addressed in our study, we postulate that if a pre-service teacher embraces some color-blind racial ideology, engages in emotion regulation strategies such as reappraisal, he/she will be more likely to engage in psychological flexibility, a receptiveness in changing one's beliefs about race as well as not acting upon those beliefs (Levin et al., 2016), and less likely to act upon his/her stigma/negative racial beliefs in the classroom. This gives us hope because once pre-service teachers can change the way they regulate their racial emotions, they can ultimately change the way they think about racial groups, developing psychological flexibility with stigmatizing thoughts about race. Understanding these processes can help teacher educators to create better interventions that address bias, prejudice, and stereotype reduction in teacher education programs to better prepare pre-service teachers for teaching in more diverse schools.

6.2. Limitations and future directions

Although the study provided several important findings and implications, there were several limitations. One potential limitation of this study is the small sample size. Because of the small sample size, we were limited in the types of statistical analyses that we could utilize and likewise, claims that we could make. With a larger sample size, we would have been able to utilize more robust data analysis techniques (e.g., SEM), allowing us to make more rigorous claims about the relationships between the various variables utilized in the study.

Another possible limitation is the use of only self-report items to capture all of the interested constructs. Additional methods beyond self-report are needed in order to better understand the relationships between the variables of interest. There has been some research using other methods that have examined some of the variables in this study. For instance, some studies have studied race-related constructs and emotions focusing on physiological responses (Karmali, Kawakami, & Page-Gould, 2017) or even facial recognition scenarios (Halberstadt, Castro, Chu, Lozada, & Sims, 2018). More varied forms of data collection are necessary to better understand the intricacies of these constructs as well as to advance the field of educational psychology.

A last limitation is the nature of the sample itself. Although we used two different universities to collect data, the sample was not diverse in terms of gender or race. In addition, participants were recruited from the same type of course at both universities. As such, this course essentially attracts a similar type of student. Future studies should focus on recruiting students with more varied backgrounds in order to create more variation within the data. Also, it is important to understand if students preparing for careers in other fields hold similar beliefs.

Despite the limitations, this study highlights how to incorporate both a race-focused (focusing on color-blind racial ideology and psychological inflexibility with stigmatizing thoughts about race) and race-reimaged (focusing on emotion regulation/difficulty with emotion regulation) approach to educational psychology research (DeCuir-Gunby & Schutz, 2014). It attempts to examine the relationships of constructs that have not yet been explored in the larger education literature and builds upon the call by King, McInerney, and Pitliya (2018) for more culturally imaginative research in educational psychology. Specifically, this study provides a preliminary model that can be further explored using more rigorous methods, as well as expanded upon by connecting related constructs such as racial ideology or specific emotions (e.g., fear, anger, and joy).

It is important to understand how pre-service teachers make sense about their color-blind racial beliefs, emotion regulation strategies, and psychological inflexibility with stigmatizing thoughts. As such, qualitative research studies that allow pre-service teachers to reflect upon their experiences would provide substantial insight into their thought processes. In particular, it is important to better understand how pre-service teachers decide to act or not act upon their feelings, particularly when issues of race are involved. As such, issues of self-control are necessary to better understand. In addition, it is essential to explore the role that the K-12 context plays in impacting these processes. How do these dynamics change as the power dynamics change (teacher-student, teacher-administrator, teacher-teacher, teacher-parent, etc.)? Another crucial area to further explore is the role of racial emotions in the aforementioned relationships. Examining racial emotions such as fear and anger as well as others such as joy and empathy can give us a better understanding of how race is experienced in the classroom. Last, it is important to examine the experiences of various racial groups. All racial groups have the potential to embrace color-blind racial beliefs, although it is often less associated with People of Color. As such, it would be important to better understand how different racial groups develop color-blind racial beliefs and how those beliefs interact with emotion regulation.

7. Conclusion

Race is central to the organization of social, political, and economic life, with real effects and concrete consequences (Omi & Winant, 2015). Pre-service teachers' color-blind racial ideology is one such effect and its negative impact on Students of Color is a concrete consequence. Understanding how pre-service teachers' emotion regulation can either subserve or curb whether they will act out their color-blind ideology in the classroom is imperative. Consequently, examining the relationship between pre-service teachers' color-blind racial ideology and emotion regulation is critical as they are the future teachers, who will actively engage with K-12 students from diverse backgrounds, across the country and possibly around the world. Therefore, it is essential to understand how pre-service students manage their emotions regarding race because it impacts their racially-situated behaviors and racial attitudes towards the children that they will potentially teach. Ultimately, taking a race-focused examination of emotion regulation is necessary to inform teacher education to critically reflect and act upon color-blind racial ideology espoused within institutional programming.

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