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INVESTIGATING THE RELATIONSHIP BETWEEN ETHNIC RACIAL IDENTITY AND STUDENT ENGAGEMENT THROUGH MENTAL HEALTH AND PURPOSE

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ABSTRACT

Investigating the relationship between Ethnic Racial Identity and student engagement through mental health and purpose

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Ethnic racial identity (ERI) is a developmental model that recognizes that individuals with an ethnicity (e.g., Jamaican, Puerto Rican) and race (e.g., Black, White) will have attitudes, beliefs, and actions influenced by their ethnic and racial group membership which represents an important aspect of their identity (Umana-Taylor et al., 2014). Research on people of Color (POC) who positively identify with their own ethnic and/or racial group and academic outcomes has been mixed, with studies documenting no associations (Guzman, 2002; Ivory, 2003), negative associations (Sellers, Chavous, & Cooke, 1998), and positive associations (Rivas-Drake, Seaton et al., 2014). Moreover, there remains little research on examining the underlying mechanisms explaining the link between ethnic and/or racial identity and student engagement.

Research in related fields suggests several potential mechanisms that may help explain the relationship between ERI and student engagement. For example, Sumner and colleagues (2018) posited that marginalization experiences likely shape youth purpose; POC, given their marginalization experiences, may be more purposeful than non-POC. Additionally, research suggests that positive feelings towards one's ethnic or racial group are associated with positive mental health outcomes (Rivas-Drake, Syed et al., 2014) which in turn are associated with student engagement.

The current study investigates the underlying mechanisms for the relationship between ERI and student engagement. Specifically, the study examined associations between either an

assimilation (i.e., attitudes in which individuals define identities in nationalistic rather than ethnonationalist terms) or multiculturalist inclusive (i.e., positive attitude towards one's ethnic-racial group as well as other ethnic-racial groups) ERI status and student engagement. Path analysis was employed to test the mediating role of purpose and mental health on the relationship between ERI and student engagement. The study also examined whether the relationship between ERI and mental health was different across ethnic-racial groups.

The results indicate that ERI status was not directly related to mental health. Nor was ERI status indirectly related to student engagement through mental health. However, ERI status was directly related to purpose and indirectly related to self-regulation through purpose. Further, the association between ERI status and mental health differed across ethnic-racial groups. That is, ERI status, both assimilation and multiculturalist inclusive, was more highly associated with psychological wellbeing for POCs than for non-POCs. For White students, there was a positive association between a multiculturalist inclusive ERI status and depression. Youth purpose may explain additional relationships between ERI status and other outcomes. Implications of these findings for research, assessment, and intervention are discussed.

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CHAPTER ONE

Introduction

Racial and/or ethnic identity (i.e., individuals' self-categorization in, and psychological attachment to, their ethnic and/or racial groups) has been extensively examined in association with the psychological experiences of People of Color (POC) (Phinney, 1992; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). POC are at greater risk of experiencing discrimination and prejudice than their White counterparts (Mattison & Aber, 2007), which negatively impacts their mental well-being, academic performance, and school belonging (Polk et al., 2018). For this study, POC refers to all racial and ethnic minority groups, for example, African American/Black American, Asian American, and/or Latinx. In other words, POC does not include individuals who identify with a White/Euro-American group.

The construction of an ethnic or racial identity appears to influence normative development and positive youth adjustment for POC (Neblett, Rivas-Drake, & Umana-Taylor, 2012; Williams, Tolan, Durkee, Francois, & Anderson, 2012). For POC, positive ethnic and racial identity has been associated with positive mental health outcomes such as decreased depressive symptoms (Street, Harris-Britt, & Walker-Barnes, 2009), decreased anxiety (Shrake & Rhee, 2004), and positive mental health (Pillay, 2005). In contrast, the associations between a positive ethnic and racial identity and academic outcomes are mixed for POC (Rivas-Drake, Seaton et al., 2014).

Ethnic and racial identity has mixed associations with academic outcomes that range from no effect (Guzman, 2002; Ivory, 2003) to positive associations (Rivas-Drake, Seaton et al., 2014). Ivory (2003) found no relationship between positive ethnic identity and academic performance for African Americans and Puerto Ricans. In contrast, feeling connected with one's

ethnic group was associated with improvements in GPA over two school years for African American and Latinx students (Altschul, Oyserman, & Bybee, 2006). However, earlier studies suggested assimilation to White racial group values was associated with high achieving African American students (Fordham, 1988; Fordham & Ogbu, 1986). Beyond these mixed and limited findings on associations between ethnic-racial identity and academic achievement outcomes, there is a more consistent set of research findings associated with academic engagement.

Student engagement has been categorized as: a) behavioral engagement which refers to students' positive conduct (e.g., following rules, not skipping school), involvement in learning or academic tasks, and participation in school-related activities; b) emotional engagement which refers to students' affective reactions in the classroom; c) cognitive engagement which refers to students' investment in learning which includes self-regulation or planning developing strategies for learning (Fredricks, Blumenfeld, & Paris, 2004; Hill & Wang, 2015). In sum, student engagement encapsulates academic self-regulation, self-efficacy, or motivation (Fredricks et al., 2004).

Positive ethnic or racial identity has positive associations with student engagement (Rivas-Drake, Seaton et al., 2014). Feelings of connection to one's ethnic group were associated with higher school engagement for African American adolescents (Altschul et al., 2006; Bennett, 2006; Oyserman, Harrison, & Bybee, 2011). Moreover, positive feelings towards one's ethnic group was associated with a greater value of school for Asian American adolescents (Kiang, Supple, Stein, & Gonzalez, 2012) and Latinx (Perreira, Fuligni, & Potochnick, 2010) youths. These studies, taken together, provide evidence of the links between ethnic and racial identity and student engagement across ethnic groups. Since self-concept is positively associated with student engagement (Veiga, García, Reeve, Wentzel, & García, 2015) and ethnic and/or racial

identity (Rivas-Drake, Syed et al., 2014), studies are needed to examine the mechanisms underlying this association.

Construction of Ethnic and Racial Identity

While race and ethnicity continue to be used interchangeably, there is considerable evidence that highlights how these terms are distinct from one another (Helms, 2007). Race refers to the designation of a group of people who share similar physical characteristics such as skin color and other hereditary traits (Cokley, 2007). Ethnicity refers to the designation of a group of people who see themselves and are seen by others as having shared history and cultural traditions and beliefs (Cokley, 2007). Since both race and ethnicity have distinct definitions, it follows that ethnic and racial identity models would measure different aspects or experiences of an individual's identity.

The majority of racial identity models have centered around Black or African Americans' experience and conception of Blackness, both intra-psychically and in relation to their social context (Cross & Cross, 2008). Some racial identity models have outlined the experiences of White and POC besides African Americans (Helms, 1995), noting that all racial groups undergo racial socialization experiences. Racial identity can best be understood as an individual's belief about whether their racial group membership is integral to their identity (Sellers et al., 1998) or the internalization of the racial socialization ascribed to their racial group (Helms, 2007). To summarize, racial identity models delineate the inter- and intra-personal experiences of one's racial group membership within a society; thus, the oppressive or marginalization experiences embedded within a society may have an impact on one's racial identity or self-concept.

Ethnic identity models are composed of an individual's self-labeling, belongingness, and involvement in ethnic group activities (Phinney, 1996). For example, Mexican-American

adolescents that self-identify as members of the Mexican ethnic group, feel like they belong to the Mexican ethnic group, and celebrate Mexican traditions and holidays would be categorized as in the final stage of ethnic identity development.

Ethnic-racial identity (ERI) is a framework that combines ethnic and racial identity models, reflecting the tendency of individuals to combine these rather than separate their ethnicity and race (Umana-Taylor et al., 2014). Additionally, ERI is a development model that recognizes that individuals who consist of an ethnicity (e.g., Jamaican, Puerto Rican) and race (e.g., Black, White) could be understood in the context of their attitudes, beliefs, and actions toward the combination of their ethnic and racial group membership (Umana-Taylor et al., 2014).

Ethnic and Racial Identity and Student Engagement

Research on the relationship between ethnic and racial identity and academic outcomes have been mixed. The majority of studies suggest a positive association between positive ethnic and racial identity with academic outcomes (Rivas-Drake, Seaton et al., 2014). Positive affirmation of one's ethnic group was associated with higher grade point averages (GPA) for Asian American (Worrell & White, 2009), African American (Adelabu, 2008; Altschul, Oyserman, & Bybee, 2006), and Latinx (Chang & Le, 2010; Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006) youths.

Studies that examined positive racial identity as a singular attitude (e.g., Pro-Black or not) found it to be negatively associated with academic achievement for African American students (Fordham, 1988; Fordham & Ogbu, 1986). However, when broken down into multidimensional attitudes, as recommended (Worrell, 2012), the relationship between ethnic and racial identity varies. For example, among African Americans, GPA has been associated

positively with endorsement of "anti-White" attitudes (Cokley & Chapman, 2008) and negatively with "color blind" attitudes (Arroyo & Zigler, 1995). In contrast, positive attitudes towards one's racial group were associated with higher GPA among African Americans (Chavous, Rivas-Drake, Smalls, Griffin, & Cogburn, 2008). Whereas positive ethnic and/or racial identity attitudes seem to be inconsistently associated with academic performance, these attitudes seem to have a fairly consistent association with student engagement (Rivas-Drake, Seaton et al., 2014).

Feelings of connection to one's ethnic group were associated with higher academic self-efficacy and school engagement for a sample of African American adolescents (Altschul et al., 2006; Bennett, 2006; Oyserman et al., 2011). Similarly, African American adolescents identified as succeeding in school reported higher ethnic identity affirmation and belonging than their counterparts who exhibited problem behaviors in school (Yasui et al., 2004). Ethnic identity affirmation and belonging was associated with valuing school for Asian American adolescents (Kiang, Supple, Stein, & Gonzalez, 2012) and Latinx (Perreira et al., 2010) youths. In summary, ethnic and racial minority youths are most likely to hold multiple attitudes, rather than a single, static attitude, about their ethnic and/or racial identity that impact mental health and academic engagement.

Ethnic and Racial Identity and Mental Health Outcomes

The feelings, thoughts, and beliefs individuals have about their own ethnic and/or racial group, as well as other ethnic and racial groups, have been found to impact mental health well-being (Parham & Helms, 1985; Pieterse & Carter, 2010). Thus, it stands to reason that students would experience an improvement in their mental health through the development of a positive ethnic racial identity (i.e., feelings towards their own and other ethnic and racial groups).

Indeed, ethnic group affirmation (i.e., positive evaluation and positive feelings towards one's own ethnic racial group) has been related to a reduction in somatic symptoms for Latinx and African American youths (Rivas-Drake, Hughes, & Way, 2009). Additionally, ethnic group affirmation has been linked with fewer depressive symptoms for African American (Street, Harris-Britt, & Walker-Barnes, 2009) and internalizing (i.e., anxiety, somatization) and externalizing (i.e., acting out, aggression) behaviors for Asian American (Shrake & Rhee, 2004) youths.

Moreover, racial identity attitudes that revolve around pride in one's racial group have been associated with positive mental health such as general positive affect, life satisfaction, and feeling emotionally connected to others (Pillay, 2005). Similarly, positive feelings towards racial group membership was associated with psychological well-being (i.e., self-acceptance, purpose in life, personal growth) for African American adolescents (Sellers, Copeland-Linder, Martin, & Lewis, 2006). In contrast, racial identity attitudes that revolve around assimilation or opposition to the dominant group (i.e., feelings focused away from one's racial group) have been negatively correlated with psychological well-being (Iwamoto & Liu, 2010; Pierre et al., 2005). In summary, positive ethnic racial identity attitudes are associated with positive mental health well-being for POC. An improved mental health well-being may be integral to students' ability to remain academically engaged.

Mental Health and Student Engagement

The positive association between mental health and academic outcomes has been supported for decades (Durlak & Wells, 1997; Reid, Gonzalez, Nordness, Trout, & Epstein, 2004). Students who experienced an increase in mental health also exhibited an increase in their academic performance across two years (Dix, Slee, Lawson, & Keeves, 2012). In particular,

mental health (e.g., depression, anxiety) has had strong associations with student engagement (Carter, McGee, Taylor, & Williams, 2007; Li & Lerner, 2011; Becker, Brandt, Stephan, & Chorpita, 2014). Students with higher levels of student engagement exhibited lower risk of depression and suicidality compared to students with lower levels of student engagement (Carter et al., 2007). In addition to reducing negative mental health symptoms (e.g., depression), student engagement was associated with better overall mental health and well-being (Holdsworth & Blanchard, 2006). Finally, students who exhibited positive trajectories of behavioral and emotional student engagement were at lower risk of depression, delinquency, and substance abuse (Li & Lerner, 2011). In summary, youths who are academically engaged are more likely to experience increased mental health well-being and decreased depression.

The aforementioned relationship between mental health and student engagement has been explained through various constructs such as hope and life satisfaction (Marques, Pais-Ribeiro, & Lopez, 2011) and subjective well-being (Suldo, Thalji, & Ferron, 2011). A hopeful outlook has been shown to have strong associations with youths who are purposeful or who are striving for an ultimate aim that is meaningful to the self and contributes to matters greater than the self (Damon, 2009). To summarize, students who are mentally healthy, may be more optimistic about the future and purposeful, which may prove useful in overcoming the obstacles necessary to achieve positive academic outcomes.

Youth Purpose and Student Engagement

Youth purpose has been defined as a long-term aspiration that is both personally meaningful and contributes to the world beyond-the-self (Damon, 2009). That is, youth purpose embodies a combination of self-oriented goals (i.e., purpose that focuses on self-success) and

other-oriented goals (i.e., purpose that contributes to the world) (Bronk & Finch, 2010). Youth purpose may help explain the relationship between mental health and academic outcomes.

Future aspirations (i.e., purpose) may inspire, shape, and give meaning to student engagement (Fredricks et al., 2004). Adolescents are likely to internalize their goals and guide their own development by engaging in experiences that foster their identities and future goals (Park, Holloway, Arendtsz, Bempechat, & Li, 2012). Moreover, youths who have a well-developed purpose (i.e., long-term aspiration) have higher levels of engagement (Deci & Ryan, 2008). Long-term aspirations may help youth to internalize their engagement which informs future goals so that they are mutually influencing one another and self-perpetuating (Hill & Wang, 2015). To summarize, youth may be more motivated to engage in their academics when they have a purpose or aspiration they are striving towards.

Indeed, purpose is associated with an increased internal locus of control (Pizzolato, Brown, & Kenny, 2011) which may promote student engagement. Moreover, purpose was positively related with students' passion and perseverance for their goals (Hill, Burrow, & Bronk, 2016). Similarly, youths with higher levels of purpose reported a greater sense of personal agency (Burrow, O'Dell, & Hill, 2010), a key proponent of student engagement (Horstmanshof & Zimitat, 2007). Compared to other people, youths with purpose reported their school work as more meaningful (Yeager & Bundick, 2009). Finally, a self-transcendent purpose (e.g., service to others, commitment to a social justice cause) was associated with academic self-regulation and performance (Yeager et al., 2015). In sum, purposeful students appear to be academically engaged due to changes in self-concept, academic attitudes, and internalization of goals associated with their purpose.

Ethnic Racial Identity and Youth Purpose

In order to build on our understanding of the mechanism of ethnic and racial identity's relationship with student engagement, the current study explores the role of youth purpose as a mediator between these two constructs. The experiences of discrimination, marginalization, and prejudice may diminish the effects of a positive ethnic and/or racial identity associated with academic engagement. Ethnic and racial minority students are at greater risk of experiencing discrimination and prejudice than their White counterparts (Mattison, & Aber, 2007; Van Laar & Sidanius, 2001). While mental health has consistently shown positive associations between a positive ethnic and/or racial identity with mental health outcomes (Parham & Helms, 1985; Rivas-Drake et al., 2009) and may buffer the effects of discrimination (Sellers, et al. 2006), mixed results between positive ethnic and racial identity and academic outcomes persist. There may be additional mechanisms working alongside mental health in the relationship between ethnic and racial identity and academic outcomes such as youth purpose.

Sumner and colleagues (2018) created a conceptual model that outlined how the experiences of marginalization might promote or inhibit a sense of purpose in life for adolescents. Marginalization experiences may impact the following promotive aspects of youth purpose: a) scope of purpose through focused exploration and motivation to a prosocial purpose; b) strength of purpose through opportunities for role-fulfillment within their family, identity-specific socialization, and shared values with their culture; c) awareness through opportunities for reactive exploration, shared voice within a marginalized group, and participation in activism (Sumner, Burrow, & Hill, 2018). In summary, the marginalization experiences of racial and ethnic minority youths may foster the development of purpose, promoting positive future outlook, and influencing their engagement in meaningful activities. Finally, purpose may be the mechanism in which positive ethnic and racial identities are associated with academic outcomes.

Current Study

Research has shown that a positive ERI is associated with improved mental health. However, the literature is mixed on the relationship between positive ERI and student engagement, ranging from no relationship to a positive relationship between positive ERI and student engagement. This study sought to examine whether there were underlying mechanisms that can clarify the relationship between ERI and student engagement. The study utilized an advanced statistical model to examine how ethnic racial identity is indirectly related to student engagement through its relationship with mental health and purpose. Subsequently, data from a large longitudinal dataset of high school students were examined to test the primary research questions. Results from these analyses were presented, and implications for findings were discussed. The discussion section reviewed the implications of the study's findings for ethnic racial identity development and student engagement.

Research Hypotheses

This study examined the following research hypotheses between ethnic-racial identity (ERI), purpose, mental health, and academic engagement:

1. ERI status (i.e., assimilation, multiculturalist) would have a direct relationship with mental health (i.e., depression, well-being). Students who endorsed the multiculturalist inclusive status (i.e., valuing own ethnic or racial group as well as other ethnic or racial groups) were expected to experience less depression and increased well-being.
2. Mental health would have a direct relationship with student engagement. Students who experience decreased depression and increased well-being would exhibit higher levels of academic engagement.

3. ERI status (i.e., assimilation, multiculturalist) would have an indirect relationship with student engagement through mental health. That is, mental health mediates the relationship between students' ERI status and student engagement.
4. Purpose would have a direct relationship with student engagement. Students who endorse higher levels of purpose would experience increased student engagement.
5. ERI status (i.e., assimilation, multiculturalist) would have an indirect relationship with student engagement through purpose. That is, purpose was expected to mediate the relationship between the assimilation and multiculturalist inclusive status and student engagement.
6. The relationship between ethnic racial identity status (i.e., assimilation, multiculturalist inclusive) and mental health would differ across ethnic-racial groups (e.g., Euro-American, Brazilian).

CHAPTER TWO

Literature Review

Impact of Discrimination and Stereotypes on Academics for Ethnic and Racial Minorities

A common factor for students who experience diminished academic outcomes is the presence of a marginalized identity (e.g., racial minority, immigrant) that places them at an increased risk of experiencing discrimination and prejudice (Mattison & Aber, 2007; Poteat, Scheer, & Mereish, 2014). As a result of racism and xenophobia, ethnic and racial minority youths are at an increased risk of experiencing discrimination and prejudice in academic settings that negatively impact their academic outcomes and engagement. Perceptions of and experiences of discrimination by ethnic and racial minorities were found to negatively impact: school bonding and self-esteem (Dotterer, McHale, & Crouter, 2009); grades, academic self-concepts, and academic task values (Wong, Eccles, & Sameroff, 2003); and school engagement (Smalls, White, Chavous, & Sellers, 2007). In addition to experiencing discrimination, ethnic and racial minority youths are at risk of experiencing stereotype threat which can negatively impact academic engagement, performance, and achievement (Steele & Aronson, 1995).

Stereotype threat occurs when individuals are concerned about acting in ways that conform to negative stereotypes about their group (Steele & Aronson, 1995). For instance, Steele and Aronson (1995) found that internalized negative stereotypes about African Americans' intellectual ability resulted in reduced standardized test scores among them. In addition to the impact of stereotype threat on standardized test performance, it has been found to negatively impact college academic performance (Owens & Massey, 2011), mathematical and spatial abilities (Aronson et al., 1999; Gonzales, Blanton, & Williams, 2002), and motor tasks (Stone, 2002; Stone, Lynch, Sjomeling, Darley, 1999). Stereotype threat possibly affects performance

through several underlying processes such as anxiety (Spencer, Steele, & Quinn, 1999), working memory (Schmader, & Johns, 2003), and self-doubt (Steele & Aronson, 1995). In summary, ethnic and racial minority students are at increased risk of experiencing discrimination, stereotype threat, or both; ethnic and racial minority youths are uniquely tasked with identifying supports or ways in overcoming these barriers in academic settings.

Responses to Systemic Oppression

Throughout history, there have been various forms of systemic oppression often as a way to expand existing civilizations, maintain dominance, and/or expand wealth (Zinn, 2005). These forms of systemic oppression can take the form of sexism, homophobia, racism, and/or xenophobia; oftentimes, individuals can experience multiple forms of oppression when others perceive them as holding two or more marginalized identities (see Brah & Phoenix, 2004; Crenshaw, 1989; 1990). As outlined in the previous section, POC, more specifically, African Americans had to endure racism in the United States from the moment settlers landed on North America through the present. Scholars have described both how POC's self-concept developed in societies that oppress them (DuBois, 1903) and ways of responding to systems of oppression (Fanon, 1952/1967; Freire, 1968/2000).

Double Consciousness

The way that marginalized individuals are perceived by others also affects the way they see themselves. DuBois (1903) used the term "double consciousness" to describe the experience of his self-identity being inextricably tied to how he was perceived by others—in his instance, White people. DuBois (1903) defined double consciousness as:

> This sense of always looking at one's self through the eyes of others, of measuring one's soul by the tape of a world that looks on in amused contempt and pity. One ever feels his

> twoness, — an American, a Negro; two souls, two thoughts, two unreconciled strivings; two warring ideals in one dark body, whose dogged strength alone keeps it from being torn asunder. (p. 16 – 17)

In other words, DuBois (1903) was commenting on how his race altered how he was treated by American society despite being American. He recognized that he was both Black and American; two identities that appeared to be at conflict. This double consciousness has also been described as a survival technique to manage mental conflict (Moore, 2005). It assisted African Americans with balancing their Black and American identities in a predominately White society where racism, discrimination, and prejudice are prevalent. For example, African Americans had to contend with the fact that despite serving in the U.S. military during the Spanish American War and the Philippine War, they were still not viewed as equal to their White counterparts, subject to humiliation by not being served at restaurants, and worse, faced the possibility of being lynched or murdered on the basis of race (Zinn, 2005).

Double consciousness as a phenomenon is very much tied to the time period, one where African Americans were "freed" from slavery via the Emancipation Proclamation and yet were subject to degradation and unequal treatment by the society they were members of. African Americans were forced to vacillate between their Black and American identity when necessary. Double consciousness is an example of how African Americans are forced to reconcile the duality of being both American and Black in response to the wrongdoing of their oppressors.

Decolonization

Scholars shifted away from examining how oppressed people can respond to systemic oppression to highlighting the oppressors' role and hypocrisy in oppressing people. Cesaire (1950/2000) noted that the actors who carry out colonization are more than those who commit

the violence or the leaders who incite it, but the individuals who turn away from it which allow it to occur and only object when they become the targets of the colonization. Cesaire (1950/2000) described colonization as "relations of domination and submission, which turn the colonizing man into the classroom monitor, an army sergeant, a prison guard, a slave-driver, and the indigenous man into an instrument of production" (p. 42). As follows, the calls for decolonization would come from individuals who were subject to colonization or systemic oppression as a result of holding one or more marginalized identities.

Fanon (1952/1967) developed an account of the psychological impact of racism on Black individuals in colonies as well as the impact on identity development. He discussed self-contempt that manifests for Black people in his home island of Martinique as they strive to be similar to and accepted by their White colonizers by distancing themselves from Blackness; this self-contempt mirrors much of what is outlined in contemporary literature on internalized oppression. Fanon (1952/1967) noted that Black people experience a psychic trauma that is tied to their experience of being colonized and treated as inferior by White people. Fanon (1952/1967) summarized his experience in France with the following:

> It was hate; I was hated, despised, detested… by an entire race. I was up against something unreasoned. The psychoanalysts say that nothing is more traumatizing for the young child than his encounters with what is rational. I would personally say that for a man whose only weapon is reason there is nothing more neurotic than contact with unreason. (p. 118)

While much of Fanon's critique is comprised of anecdotal experiences, contemporary research highlights similar phenomena about the negative impact of racism, prejudice, and discrimination on mental health. Fanon (1952/1967) described the need for: "the enslavement of

man by man [to] cease forever. That is, of one by another. That it be possible for me to discover and to love man, wherever he may be" (p. 231). These early sentiments reflect an ultimate goal whereby individuals who are oppressed did not necessarily desire a rise to equal status as the oppressor, but rather, a desire for the system of oppression to end and notions of superiority and inferiority between groups of people to be eliminated.

Critical Consciousness

With the critical examination of colonialism and the call to decolonize countries and people, scholars began exploring how systemic oppression penetrated the psyche of people who are oppressed. Freire (1968/2000) noted that people who are oppressed have internalized the image and guidelines of the oppressor; thus, there is a struggle for demanding or achieving freedom by the oppressed as this would go against what is taught by the oppressor. Freire (1968/2000) argued that the consciousness of the oppressor is one that transforms everything surrounding the oppressor into an object, including people and their labor. Freire (1968/2000) outlines the dilemma faced by the oppressed with the following:

> One of these characteristics is the previously mentioned existential duality of the oppressed, who are at the same time themselves and the oppressor whose image they have internalized. Accordingly, until they concretely "discover" their oppressor and in turn their own consciousness, they nearly always express fatalistic attitudes towards their situation. (p. 61)

Freire (1968/2000) posited that freedom for the oppressed lies with a critical consciousness. A critical consciousness is one that views reflection and action as integral to the liberation of the oppressed. Reflection is key for an oppressed person to gain awareness of his/her/their oppression and the roles in which the oppressor and oppressed play in the

dehumanization of the oppressed people. Action can follow this reflection as it can inspire the oppressed class to act in ways that are in the oppressed class' best interests rather than the interests of the oppressor. More importantly, Freire (1968/2000) did not treat reflection and action in a linear fashion, rather as reciprocal and constantly feeding into one another to assure that the oppressed class could remain critical of how they were dismantling their oppression and ensuring their liberation and empowerment.

Identity Development of Ethnic and Racial Minorities

DuBois' (1903) reflection on double consciousness outlined the experience of African Americans vacillating between two identities (i.e., race and nationality); however, it was not intended to be a theoretical framework that describes the identity development of ethnic and racial minorities. Scholars have created identity development theories that range from an individual's obliviousness to systemic oppression to an individual who feels pride in his/her/their ethnic and/or racial group despite being systemically oppressed.

Ethnic and racial identity development consists of individuals' socialization experiences in the world, their internalization of those experiences, and how they make sense of their racial and/or ethnic group as well as other racial and/or ethnic groups.

Racial Identity Development

Individuals' racial socialization experiences are linked to their racial group membership and may differ in the advantages or disadvantages that they experience within society (Helms, 2007). Nigrescence theory has been a foundational model for the conceptualization of African Americans' racial identity development (Worrell, Cross, Vandiver, 2001) that comprises four stages and approximately nine racial attitudes that are relatively static. In adapting Cross' (1971) Nigrescence stage-model, Helms (1989) posited that racial identity attitudes should not be

viewed as static; instead, it should be assumed that individuals may exhibit attitudes and behaviors of more than one status at a given time. Helms (1995, 1996) described the Black racial identity model as a set of different worldviews or "ego-statuses" that filter race-based information. The "ego-statuses" for Black people are pre-encounter, encounter, immersion/emersion, internalization, and integrative awareness.

Another racial identity model, the multidimensional model of racial identity (MMRI) defines racial identity in African Americans as the level of importance that an individual attributes to their racial group membership within their self-concepts (Sellers et. al, 1998). That is, the MMRI looks at how integral an individual's racial group membership is in their construction of their identity. The MMRI breaks down racial identity into racial salience, racial centrality, and racial regard (private and public). The MMRI also includes racial ideology which is broken down into nationalist, oppressed minority, assimilationist, and humanist. In summary, racial identity theories take into consideration the influences of broader society and provide a continuum for how individuals make sense of their own races in relation to their self-concepts, racial groups, and the experiences of other marginalized groups.

Ethnic Identity Development

Many ethnic identity models build off of Marcia's (1966; 1980) operationalization of Erikson's (1968) ego identity development such that an achieved identity (i.e., a firm commitment following a period of exploration) follows an identity crisis (Phinney, 1989). Ethnic identity is best defined as an individual's sense of ethnic group membership that involves self-labeling, sense of belonging, and involvement in ethnic group activities (Phinney, 1996). Ethnic identity has been described as separate stages, parallel to Marcia's (1966; 1980) identity stages. The first stage is little or no exploration of one's own ethnicity (i.e., diffuse/foreclosure). The

second is evidence of exploration of one's own ethnicity (i.e., exploration). The third is confusion about the meaning of one's ethnicity (i.e., moratorium). The fourth involves both an exploration of ethnicity and an understanding and acceptance of one's own ethnicity (i.e., achieved ethnic identity; Phinney, 1989). An additional component of ethnic identity is affirmation, the positive affect that individuals feel towards their own ethnic group (Umaña-Taylor, Yazedjian, & Bámaca-Gómez, 2004).

Ethnic Racial Identity Theory

While there have been distinctions made between racial and ethnic identity (Cokley, 2007; Helms, 1996), some researchers have reached a consensus in moving away from these distinctions to create a meta construct – "ethnic racial identity" (ERI; Umaña-Taylor et al, 2014). The rationale for creating ERI rests on the notion that the majority of ethnic and racial identity measures were not designed to be exclusively racial or ethnic (except for the Racial Identity Attitude Scale; see Parham & Helms, 1981). Additionally, racial processes have been found to catalyze ethnic identity development (Pahl & Way, 2006) and racial identity attitudes have been associated with accepting cultural traditions (Cokley, 2005). This may suggest a bidirectional influence between ethnic and racial identity development. That is, as individuals develop positive feelings towards their own racial groups (i.e., positive racial identity), they may be more likely to develop a sense of belonging and affirmation towards their ethnic group (i.e., positive ethnic identity) and vice versa.

ERI is best defined as a "multidimensional, psychological construct that reflects the beliefs and attitudes that individuals have about their ethnic–racial group memberships, as well as the processes by which these beliefs and attitudes develop over time" (Umaña-Taylor et al., 2014, p. 23; see appendix for **Table 1**). ERI is composed of content and process: content refers to

attitudes and beliefs about one's group and its relations to other groups; and process refers to the mechanisms by which one explores, forms, or maintains their ERI (Umaña-Taylor, et al., 2014). For example, the content (i.e., attitudes, beliefs) in early childhood includes ethnic racial self-labeling whereas the content (i.e., attitudes, beliefs) in adolescence builds on self-labeling through greater certainty in identifying with one's group, regardless of negative experiences (e.g., racism, discrimination), that is reinforced by one's family and peers.

Adolescents' ERI development differs from that of younger children due to their ability to understand how one's ethnic or racial group impacts their social experiences as well as how it differs from the social experiences of other ethnic or racial groups (Syed & Azmitia, 2008; Quintana, 1998). Moreover, adolescents are tasked with reconciling the views that others ascribe to their ethnic racial group with their personal views of their ethnic racial group (Umaña-Taylor, et al., 2014). While ethnic and racial identity development represent two distinct processes (Cokley, 2007; Helms, 2007), ERI theory allows for both the conceptualization and measurement of adolescents across ethnic and racial groups.

Ethnic Racial Identity and Student Engagement

Findings regarding the association between ethnic racial identity and academic achievement have been mixed. Several studies have suggested GPA and ethnic identity are not related for Mexican (Guzman, 2002) or African American and Puerto Rican (Ivory, 2003) adolescents. Students who endorsed racial identity attitudes that consisted of cognitive dissonance about racism or being prideful of one's racial group and condemning all members and values of the dominant group had lower GPAs (Witherspoon, Speight, & Thomas, 1997). Additionally, students that employed assimilation strategies (i.e., attempts to adopt the habits,

traditions, and values of the dominant ethnic group) tended to have poorer academic performance (Sellers, Chavous, & Cooke, 1998).

Research on the associations between racial identity and student engagement (compared to other measures of academic performance) have been more consistent. For example, ambivalence and anxiety about one's racial identity was found to negatively relate to student engagement, whereas a more secure racial identity was associated with a higher level of student engagement (Perry, 2008). A positive sense of racial identity (i.e., internally defined racial identity and valuing one's racial group) was associated with lower high school dropout and higher college attainment rates (Chavous et al., 2003) and increased student engagement and school values (Chavous et al., 2008). Racial identity exploration and resolution were also positively associated with interest in learning among African American adolescents (Borrero & Yeh, 2011). To summarize, positive racial identity has been associated with increased student engagement of various types (e.g., behavioral, emotional, and cognitive).

Positive ethnic identity seems to be similarly associated with student engagement. For example, youths who self-labeled, had a greater sense of belonging, and were actively involved in ethnic group activities (i.e., positive ethnic identity) also exhibited a shift towards more positive academic attitudes and beliefs for Latinx (Berkel et al., 2010) and African American adolescents (Hughes et al., 2009). Positive ethnic identity was also associated with positive attitudes towards school engagement for African American (Borrero & Yeh, 2011; Kerpelman, Eryigit, & Stephens, 2008), Latinx (Oyserman, 2008; Perreira et al., 2010), and Asian American (Kiang et al., 2012) adolescents. More specifically, ethnic group affirmation and belonging were associated with school value, school centrality, and school connectedness for Asian American adolescents (Kiang et al., 2012).

Taken together, consistent findings demonstrate links between individuals' positive feelings toward their ethnic and/or racial groups and the belief in their ability to succeed in academic settings and student engagement.

Ethnic Racial Identity and Mental Health Outcomes

Racial identity attitudes that revolve around pride in one's racial group have been associated with positive mental health (Pillay, 2005; Sellers et. al, 2006). Individuals who identify as Black and have positive feelings towards their racial group experienced decreased psychological distress (Franklin-Jackson & Carter, 2007; Pieterse & Carter, 2010), decreased stress (Pieterse et al., 2010), and increased psychological well-being (Franklin-Jackson & Carter, 2007; Pieterse et al., 2010). Parham and Helms (1985) found that individuals with negative feelings towards their racial group or towards the dominant racial group exhibited higher levels of anxiety. Moreover, individuals who assimilated to the dominant racial group displayed lower levels of self-esteem (Pierre & Mahalik, 2005) and mental health well-being (Iwamoto & Liu, 2010; Pierre & Mahalik, 2005). Finally, Black women who endorsed assimilation towards the dominant racial group were shown to have lower general well-being, lower self-esteem, and more depressive symptoms (Pillay, 2005). In summary, an individual's racial identity status represents their perception of their own racial group in relation to the racial hierarchy which contributes to their general well-being. Taken together, these studies suggest that racial identity statuses differentially relate to well-being and self-esteem.

Ethnic identity attitudes are also found to be associated with mental health outcomes (Rivas-Drake, Syed et al., 2014). Ethnic affirmation was positively associated with self-esteem for African American adolescent boys (Mandara, Gaylord-Harden, Richards, & Ragsdale, 2009). Umaña-Taylor and Updegraff (2007) found that ethnic identity exploration and resolution were

positively associated with self-esteem. Moreover, longitudinal changes in ethnic identity exploration predicted growth in self-esteem among a predominantly Mexican-American adolescent population (Umaña-Taylor, Gonzales-Backen, & Guimond, 2009). Positive perceptions of others' views of their ethnic group was linked to fewer somatic symptoms among Dominican youths (Rivas-Drake et al., 2009). Finally, for Asian American youths, ethnic exploration and commitment was positively related to subjective happiness (Le, Lai, & Wallen, 2009), higher self-esteem (Bracey, Bámaca, Umaña-Taylor, 2004), and fewer internalizing and externalizing symptoms (Shrake & Rhee, 2004). In summary, research suggests that positive ethnic identity attitudes and feelings relate to positive well-being and self-esteem.

Youth Purpose Development

Victor Frankl's (1946/2006) seminal book *Man's Search for Meaning* introduced the importance of higher-level belief systems and the constructs of "meaning" and "purpose." Frankl (1946/2006) outlined the importance of living for his ideals and values and how these helped him survive a concentration camp. Since Frankl (1946/2006), positive psychologists and positive youth development (PYD) psychologists have undertaken the task of delineating the significance of searching for meaning, pursuing purpose, and living a life according to one's values (Damon, Menon, & Bronk, 2003). However, positive psychologists differ from Frankl such that striving for meaning and purpose is not done as a means for survival, rather individuals pursue meaning and purpose to achieve deeper desires. One of the difficulties in researching purpose has been the many definitions that exist for purpose. As an outgrowth of Frankl's work, the purpose-in-life test was created to capture the existential concept of "purpose" or "meaning" (Crumbaugh & Maholick, 1964). Purpose-in-life was defined as the significance that is attributed by an individual to one's own life and being (Crumbaugh & Maholick, 1964). Similarly, meaning-in-

life was defined as a combination of an understanding of the purpose for one's existence, the pursuit and accomplishment of goals, and a sense of fulfillment (Reker & Wong, 1988).

McKnight and Kashdan (2009) state that purpose provides a sense of direction in life that helps individuals organize and pursue goals, manage behaviors, and experience a sense of fulfillment or meaning. An individual's purpose has been viewed as strongly tied to his/her/their identity and personality and is associated with "greater persistence… because a central, self-organizing life aim resonates across time and context" (McKnight & Kashdan, 2009, p. 242).

Another definition of youth purpose is a "stable and generalized intention to accomplish something that is at once meaningful to the self and of consequence to the world beyond the self" (Damon et al., 2003, p. 121). In the latter definition of purpose, there is an intention to pursue aims that transcend the self and impact other people, the greater society, or the world. Within this definition, aims that are pursued solely for the benefit of the self (e.g., I want to make a lot of money) are not as meaningful as aims that benefit the self and greater society (e.g., I want to make money a lot so that I can help build homes for poor families). Liang and colleagues (2016; 2017) found that four salient factors called the "4 P's" collectively shaped youth purpose: a) *people* that empower the youths to pursue their purpose; b) *passion* in the activities or things associated with the purpose; c) *propensity* for pursuing the purpose based on the youths' strengths and skills; and d) *prosocial* desires to benefit other people or society as a whole. Youths who are committed to a purpose(s) that would impact others, possibly their own families, communities, and/or social groups, may be more likely to persist despite obstacles or adversity.

Youth Purpose and Student Engagement

Purposeful individuals are able to sustain engagement in the pursuit of long-term aspirations (Damon et al., 2003). Specifically, youths with long-term goals that are personally

meaningful and tied to education are more academically engaged than their peers (Damon, 2009). Youths with high levels of purpose get better grades (Adelabu, 2008), score better on intelligence tests (Minehan, Newcomb, & Galaif, 2000), hold more positive academic self-identities (Dukes & Lorch, 1989), and are more academically motivated than their peers (Nurmi, 1991).

When a young person has a purpose, it guides and motivates present behavior towards achieving their long-term goal(s) (Damon et al., 2003). For example, first-year students at an Australian university who were motivated by a future goal were shown to have higher levels of academic values and studying behaviors (Horstmanshof & Zimitat, 2007). Another study showed that African-American high school students with a strong future orientation viewed education as more useful for reaching later life success, indicated higher perceived intrinsic value for academic work, and had higher grades (Brown & Jones, 2004). Finally, Dutch-speaking male high school students who endorsed positive future orientations and believed that academic behaviors were strongly linked to their success were shown to have higher academic achievement (Van Calster, Lens, & Nuttin, 1987). Indeed, the positive association between purpose and student engagement is consistent across ethnic groups.

When students lack a meaningful long-term purpose, academic engagement can seem futile whereas those who have a meaningful long-term purpose are motivated to engage in academics because success in the latter seems relevant to their future goals (Hill et al., 2018). In a racially diverse sample, Hill and colleagues' (2018) study demonstrated that envisioning a meaningful future partially mediated the association between parental and school-based relationships and student engagement for the whole sample. However, African-Americans

reported lower levels of purpose engagement than did their White counterparts, indicating the importance of examining race factors.

Youth Purpose and Mental Health Outcomes.

In addition to research on links between purpose and academic engagement, evidence suggests that purpose is associated with positive mental health symptoms (Steger & Kashdan, 2013). More specifically, purpose is associated with increased engagement in healthy activities (Brassai et al., 2011) and higher levels of happiness (Debats, Van der Lubbe, & Wezeman, 1993). Moreover, youths with higher levels of purpose reported greater sense of personal agency (Burrow et al., 2010; Hill, Sumner, & Burrow, 2014), higher levels of self-esteem (Blattner, Liang, Lund, & Spencer, 2013; Halama & Dedová, 2007), and held more internal control beliefs (Nurmi & Pulliainen, 1991). In sum, youths with higher levels of purpose experience a combination of positive mental health symptoms and self-attitudes that may mitigate adverse experiences or encourage the pursuit of purpose.

Research has shown that purpose also reduces negative mental health symptoms (Minehan, 2000). Youths with high levels of purpose were less likely to use substances (Harlow, Newcomb, & Bentler, 1986; Minehan et al., 2000) and had less suicidal ideation and behavior (Harlow, et al., 1986; Wang, Lightsey, Pietruszka, Uruk, & Wells, 2007). In particular, youths with lower levels of meaning in life reported increased rates of anxiety and depression (Debats et al., 1993). Similarly, Wang and colleagues (2007) found that as youths' levels of purpose increased, the number of depressive symptoms decreased, thus decreasing the relationship between depression and suicidality. In sum, youths with lower levels of purpose are at increased risk of negative mental health symptoms which may exacerbate adverse experiences and diminish establishing or pursuing purpose.

Ethnic Racial Identity and Youth Purpose

Sumner and colleagues (2018) proposed a conceptual model describing how experiences of marginalization may promote adolescents' development of the scope, strength, and awareness of their purpose. Adolescents who are marginalized due to social identities they hold are forced to struggle with external definitions of their social groups (Gonzales, Suárez-Orozco, & Dedios-Sanguinetti, 2013) which may delay the development of purpose. Moreover, adolescents are less oriented toward the future (Steinberg et al., 2009), which further limits purpose exploration for adolescents who are marginalized. However, adolescents who may feel like there are a smaller number of options, regardless if it is due to personal (e.g., self-esteem) or societal expectations (e.g., stereotypes, discrimination), may commit to a purpose more quickly (Sumner et al., 2018) which yields outcomes such as positive affect and agency (Burrow et al., 2010).

Committing to a purpose more quickly, albeit due to the limitation of choices associated with an adolescent's group, can promote well-being because of the few meaningful activities that an adolescent participates in (King et al., 2003). Moreover, adolescents who experience marginalization may commit to a purpose that includes a prosocial goal (i.e., contribute to the world beyond the self) of improving the issues faced by their social group through civic or political action (Godfrey & Cherng, 2016; Malin, Ballard, & Damon, 2015). Thus, adolescents who experience marginalization will likely commit to a purpose and engage in behaviors sooner than adolescents who are exploring their purpose. Finally, adolescents who experience marginalization may commit to a civic purpose related to their social group membership (Malin et al., 2015).

Marginalization experiences are also linked to the strength of adolescents' purpose development (Sumner et al., 2018). Adolescents often cited their families as sources of social

support most integral to their purpose development (Liang et al., 2017; Moran, Bundick, Malin, & Reilly, 2013). Additionally, familial struggles (e.g., immigration status, low SES) may influence adolescents to pursue a purpose that helps their family and/or themselves escape adversity associated with their marginalized backgrounds (e.g., poverty) (Gutowski, White, Liang, Diamonti, & Berado, 2017; Liang et al., 2017). Family engagement, often emphasized by racial and ethnic minority groups, may catalyze purpose development for adolescents through playing an active role in supporting their family (Kiang, 2012). Finally, families' identity specific socialization can support adolescents' well-being as they contend with marginalization which may promote purpose strength by enabling commitment to a social identity (Nguyen, Wong, Juang, & Park, 2015).

As adolescents who experience marginalization reflect on their lives and their connection to other individuals and systems, they increase their likelihood of developing purpose awareness (Sumner et al., 2018). That is, adolescents who reflect on their marginalization may be able to increase their awareness and articulation of their purpose. Youths' purpose exploration may be stimulated by a transformative life event (i.e., "reactive pathway" to purpose) (Kashdan & McKnight, 2009). For example, one such transformative life experience may be a "racial awakening" which consists of an external event promoting critical awareness as well as a connection to something larger than the self for racial minorities (Neville & Cross, 2017). Lastly, adolescents' understanding of language and forms of expression related to their marginalized group is linked to ways they initiate their civic purpose (Malin, Han, & Liauw, 2017) and may result in increased awareness of their purpose (Sumner et al., 2018).

Given that purpose embodies a sense of agency, youths with higher levels of purpose, alongside positive mental health well-being, may exhibit an increase in student engagement. That

is, students with higher levels of purpose are more likely to minimize negative and maximize positive mental health symptoms in order to engage academically. Students with higher levels of purpose have a greater sense of personal agency and are more likely to work hard and engage the academic system, especially if doing so would move them closer to their purpose in life. Students with less purpose are more likely to believe that they have less control over their future outcomes (Nurmi & Pulliainen, 1991), which is associated with hopelessness and mental health disorders (e.g., depressive disorders).

Summary

Due to systemic oppression, ethnic and racial minorities are at increased risk of discrimination which has been linked to diminished academic outcomes and increased mental health risk (Umaña-Taylor & Updegraff, 2007). Theorists have created identity models that acknowledge the importance of experiencing pride in one's ethnic and/or racial group alongside an increased awareness of being targeted by the negative effects of racism (i.e., stereotypes, discrimination, etc.) that exists within society (Cross, 1971; Helms, 1995; Phinney, 1989). As individuals mature in their ethnic racial identity, their awareness of systemic oppression increases as well as its impact on an individuals' experiences (Umaña-Taylor et al., 2014).

Positive feelings towards one's ethnic or racial group are accompanied by positive mental health (Pieterse & Carter, 2010; Iwamoto & Liu, 2010; Pierre & Mahalik, 2005) and student engagement (Adelabu, 2008; Sandoval et al., 1997; Altschul et al., 2006). In contrast, ethnic and/or racial minorities who had negative feelings towards their own group experienced poorer mental health (Parham & Helms, 1985; Pillay, 2005), lower student engagement (Witherspoon et al., 1997), and academic achievement (Sellers et al., 1998). Despite these findings, there remains little recent research on examining the underlying mechanisms explaining the link between

ethnic and/or racial identity and student engagement. Research is needed on the mediating factors that influence the relationship between ethnic racial identity and student engagement.

In particular, more recent research suggests that youth purpose plays an important role in academic engagement, as well as in mental health and wellbeing, among diverse and marginalized populations of adolescents (Hill et al., 2018; Liang et al, 2016; Liang et al., 2017). More specific research should be done to better understand the implications of whether ethnic racial identity formation is indirectly related to student engagement through mental health and sense of purpose. In contrast, a low sense of purpose for these same youths may be associated with poor mental health and academic engagement.

Research Hypotheses

The analyses of the relationships between ethnic racial identity, mental health, purpose, and academic achievement were confirmatory in nature. The extant literature supported the following hypotheses:

1. ERI status (i.e., assimilation, multiculturalist) would have a direct relationship with mental health (e.g., depression, psychological well-being). As students endorse ERI statuses associated with positive feelings towards their own ethnic or racial groups, they would likely experience less depression and increased well-being.
2. Depression and psychological well-being would have a positive relationship with student engagement. Students who experience decreased depression and increased psychological well-being would exhibit higher levels of student engagement.
3. Higher levels of purpose would have a positive relationship with student engagement. As students endorse higher levels of purpose, they would likely exhibit increased student engagement.

4. ERI status would be indirectly related to student engagement through mental health. That is, the relationship between students' ERI status and student engagement occurs through the direct relationship between ERI status and mental health. For example, students who endorse the assimilation ERI statuses (i.e., conceptualize identity in nationalistic terms) would likely experience increased depression and decreased well-being and thus be less academically engaged.
5. ERI status would be indirectly related to student engagement through purpose. That is, the association between students' ERI status and student engagement is mediated by youth purpose. For example, students who endorse the multiculturalist inclusive ERI status (i.e., strong connection to one's ethnic-racial group and the willingness to engage with other cultural groups their own ethnic or racial groups) would likely experience higher levels of purpose and thus be more academically engaged.
6. The relationship between ERI status (i.e., assimilation, multiculturalist inclusive) and mental health would differ across ethnic-racial groups (e.g., Euro-American, Brazilian). For example, there would be different outcomes between an assimilation ERI status and psychological well-being for POC and White adolescents in this study.

CHAPTER THREE

Method

Participants

High school seniors (N = 272, 56.3% Female, M_{age} = 18.39) were part of a larger, longitudinal study that included approximately 1000 9-12th graders at Medford High School, a public high school in the greater Boston area. The breakdown of the ethnicities of the participants in this study are as follows; Euro-American 47.9%, African American 8.7%, Haitian 5.7%, Caribbean 4.2%, Latinx or Hispanic 8.7%, Brazilian or Portuguese 12.1%, Asian 5.7%, Asian American 4.2%, Pacific Islander 1.1%, and Native American 1.9%. This longitudinal study examined academic inequalities among students from diverse backgrounds over the span of 5 years. Participants were compensated $5 gift card to a local or national coffee shop for participating in the study. Data collection has taken place across five years (i.e., five waves), though data on central measures (e.g., CERIS-A, CPS) were only collected during the fifth wave of data collection. For this study, only the fifth wave was used. For the fifth wave, data was only collected from 12th graders due to a reduction in funding. As such, only 12th grade students who completed the survey during wave five were analyzed.

Procedures

Archival data was used from a completed longitudinal study at Medford High School (MHS) that examined academic inequalities among students from diverse backgrounds. The study was a collaboration between faculty at Harvard University, Boston College, and MHS. The data collection methods consisted primarily of administering large surveys annually to the entire student body of MHS. Various domains of psychosocial and academic functioning (e.g., school climate, family support, mental health) were assessed in these surveys and the school provided

researchers with access to students' academic records and demographic information. The study has collected five waves of data. The proposed study analyzed data collected from the high school seniors in the annual survey as well as data obtained from the school.

Participants were recruited similarly across all waves of data collection during the research partnership between MHS, Boston College, and Harvard University. Boston College's Institutional Review Board received a letter of support from the MHS principal and approved the research. Prior to data collection, an introductory letter from the principal and research team, along with informed passive consent materials, were mailed to students' parents. This letter was followed by a "robocall" from the principal that described the study and its purpose, encouraged families to look for the letter describing the study, and provided instructions for asking questions and opting out (i.e., return a signed letter, send an email, or call a school administrator or research team member). A robocall is a system that automatically dials every phone number in the schools' student database and plays a recorded message. The robocall system is regularly used to inform families of important information from the school (e.g., inclement weather days, PTO meetings, events and activities at the school).

The survey took place during a class period. Research assistants arrived at the school's cafeteria with paper surveys and pencils. The study was described to students and they decided whether to participate (i.e., provided informed assent). In addition to verbal consent, each student received an informed assent form prior to the survey. School personnel and research assistants were present to answer questions and assist students. Data collection occurred during a week towards the end of the school year, minimizing the impact on instruction and allowing students to reflect on the experiences of the prior year.

Data Collection Site and Student Demographics

Medford High School is located in the city of Medford, Massachusetts, a few miles northwest of Boston. In order to be eligible for the study, the student must be enrolled at Medford High School. The demographic breakdown for the 2017-18 academic year is as follows: 60.3% White, 15.3% African American, 9.6% Asian, 11.7% Latinx, 2.9% Multi-Race, Non-Latinx, and 0.1% Native American, Pacific Islander. Medford also serves students from a wide range of socioeconomic status backgrounds, with 28.9% being classified as economically disadvantaged. Students are categorized as economically disadvantaged if they participate in one or more of the following state-administered programs: The Supplemental Nutrition Assistance Program (SNAP); the Transitional Assistance for Families with Dependent Children (TAFDC); the Department of Children and Families' (DCF) foster care program; and MassHealth (Massachusetts Department of Elementary and Secondary Education, 2015).

Measures

Demographic Questionnaire

Participants were asked to indicate age, gender identity, sexual identity, race, ethnicity, and parents' educational background.

Claremont Purpose Scale

The Claremont Purpose Scale (CPS; Bronk, Riches, & Mangan, 2018) is a 12-item scale that assesses purpose along the three most salient dimensions; personal meaningfulness, goal orientation, and the beyond-the-self dimension of purpose (e.g., "How clear is your sense of purpose in life?"; How hard are your working to make your long-term aims a reality?"; "How often do you hope to leave the world better than you found it?"). The CPS has been designed for use with adolescents, emerging adults, and young adults. Response options vary by item and range from 1 (e.g., "Almost never," "Not at all important") through 5 (e.g., "Almost all the

time," "Extremely important"). Higher average scores indicate higher levels of purpose. The CPS has demonstrated good internal consistency in its normative sample (N = 330, 38% Female, 69.7% White, M_{age} = 22, age range: 18-30 years) ranging from (α= .91 - .94) as well as good internal consistency amongst the subscales; personal meaningfulness (α= .92), goal-orientation (α= .86), and beyond-the-self (α= .92) (Bronk et al., 2018). Finally, the CPS has also shown strong construct validity, being positively correlated with the Purpose in Life test (PIL) (r=.80, p<.001) (Bronk et al., 2018). The internal consistency reliability of participants' responses to the CPS for this study was α = .92.

Cross Ethnic Racial Identity Scale – Adult

The Cross Ethnic Racial Identity Scale - Adult (CERIS-A; Worrell, Mendoza-Denton, & Wang, 2019) is a 29-item scale that assesses ethnic racial identity among seven dimensions: assimilation (e.g., I am not so much a member of a racial group as I am an American); miseducation (e.g., I think many of the stereotypes about my ethnic/racial group are true); self-hatred (e.g., Privately, I sometimes have negative feelings about being a member of my ethnic/racial group); anti-dominant (e.g., I have a strong feeling of hatred and disdain for the majority culture); ethnocentricity (e.g., We will never be whole until we embrace our ethnic/racial heritage); multiculturalist inclusive (e.g., I believe it is important to have a multiculturalist perspective which is inclusive of everyone); and ethnic-racial salience (e.g., When I vote in an election, the first thing I think about is the candidate's record on racial and cultural issues). Higher average subscale scores indicate higher levels of that ethnic racial identity dimension (see appendix for **Table 2**). The CERIS-A was normed on a diverse population (N = 803, 55.1% Female, M_{age} = 32.5, age range: 18-76 years) and showed strong internal consistency coefficients of the ERI subscales across a sample of African American

(19.3%), Asian Americans (17.6%), European Americans (37.0%), and Latinx (17.8%) participants.

Two subscales, multiculturalist inclusive and assimilation, were the selected subscales for this study. The multiculturalist inclusive subscale measures an individual's connection to their ethnic-racial group whereas assimilation measures the detachment from an individual's ethnic-racial group as well as self-conceptualization using nationalistic terms (e.g., American). These measures were selected because the research on ERI can be broken down by the following: positive feelings towards one's ethnic-racial group; negative feelings towards one's ethnic-racial group; or assimilating to the dominant group.

Despite our study population consisting of teenagers ages 17 to 18-years old (Euro-American 47.9%, African American 8.7%, Haitian 5.7%, Caribbean 4.2%, Latinx or Hispanic 8.7%, Brazilian or Portuguese 12.1%, Asian 5.7%, Asian American 4.2%, Pacific Islander 1.1%, and Native American 1.9%), the CERIS-A was selected due to the face validity of the questions, being relatively similar to the unpublished CERIS-Youth (sharing 22 items of the 29 items), and displaying strong internal consistency coefficients in all ethnic-racial groups in the normative sample. The item example for ethnic racial salience was modified for the current study to "When I can vote in an election, the first thing I will think about is the candidate's record on racial and cultural issues," due to some of the high school students not being 18-years old. The CERIS-A has demonstrated good internal consistency for scores on its subscales in the normative sample ranging from (α= .76 - .89) (Worrell et al., 2019). The internal consistency reliability of participants' responses to the CERIS-A for this study was α = .87.

Mental Health Inventory

The Mental Health Inventory (MHI; Veit & Ware, 1983) is a 38-item scale that measures mental health by yielding a global summary score and two subscale scores for psychological well-being (PWB) and psychological distress (PD). Psychological wellbeing is comprised of two factors, Emotional Ties and General Positive Affect. Psychological distress is comprised of three factors, Anxiety, Depression, and Loss of Emotional/behavioral Control. The MHI has been designed for use with adolescents and adults (ages 13 – 69) and response options range from 1 ("Strongly disagree") through 5 ("Strongly agree"). A secondary analysis of adolescents revealed that the MHI was also reliable in measuring PWB (α = .90) and PD (α = .90) for adolescents (ages 14 to 19) (Ostroff, Woolverton, Berry, & Lesko, 1996).

This study did not use the Emotional Ties items from the Psychological Wellbeing subscale due to previous research noting unacceptable cross loadings for one of the items ("Time felt lonely") thus leaving an insufficient number of 2 items to measure a distinct scale (Heubeck & Neill, 2000). This study will use the General Positive Affect factor items from the PWB subscale of the MHI (e.g., "For the most part, I have been happy, satisfied, or pleased with my personal life") which is comprised of 10 items. Higher average scores indicate higher levels of psychological well-being. The internal consistency reliability of participants' responses to the MHI-PWB subscale for this study was α = .91.

Revised Children's Anxiety and Depression Scale

The Revised Children's Anxiety and Depression Scale (RCADS; Chorpita, Yim, Moffitt, Umemmoto, & Francis, 2000) is a 47-item scale that assesses children's report of symptoms corresponding to selected *DSM-IV* anxiety disorders and depression. The RCADS has been designed for use with children and adolescents (in grades 3 – 12) and range from 1 ("Strongly disagree") through 5 ("Strongly agree"). This study will use the depression subscale of the

RCADS (e.g., "I feel worthless"). Higher sum scores indicate higher levels of general depressive symptoms. A sum of 12 or higher crosses the clinical threshold for major depressive disorder in boys and girls in the 11th and 12th grade (see Chorpita et al., 2000 for scoring). The RCADS – Depression subscale is comprised of 10 items and has demonstrated good internal consistency in the normative sample (α = .74) (Chorpita et al., 2000). The internal consistency reliability of participants' responses to the RCADS-depression subscale for this study was α = .89.

Maryland Adolescent Development in Context Study

The Maryland Adolescent Development in Context Study (MADICS; Eccles, Wong, & Peck, 2006) is a longitudinal study of normative development of African- and European-American youths and their families living near Washington D.C. during the 1990s. The survey was comprised of many subscales that measured domains such as family socialization, youths' social resources, and youths' perception of neighborhood quality. The current study utilized the School-Importance subscale of the MADICS (e.g., "I have to do well in school if I want to be a success in life"). The MADICS has been designed for use with adolescents (in grades 7 and 8) and range from 1 (e.g. "Strongly agree") through 5 (e.g. "Strongly disagree"). The School-Importance scale is comprised of 5 items and has internal consistency coefficients that were α = .54 and α = .64 at times 1 and 2, respectively (Eccles et al., 2006). Higher average scores indicate higher levels of a youths' perception of the importance of school. The school importance subscale was selected as the focus of this study because it measured students' emotional engagement (e.g., affective reactions in academic settings, school belonging). The internal consistency reliability of participants' responses to the MADICS-school importance subscale for this study was α = .62.

Motivated Strategies for Learning Questionnaire

The Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich & De Groot, 1990) is a 44-item scale that assesses student motivation, cognitive strategy use, metacognitive strategy use, and management of effort. This study utilized the Self-Regulation subscale of the MSLQ (e.g., "I ask myself questions to make sure I know the material I have been studying"). The MSLQ has been designed for use with adolescents and is based on a Likert scale ranging from 1 (e.g. "Not at all true of me") through 7 (e.g. "Very true of me"). The response options were modified to range from 1 ("Strongly disagree") through 5 ("Strongly agree") in this study to create consistency throughout the survey. The Self-Regulation scale is comprised of 9 items and has demonstrated good internal consistency for its normative sample (57.8% Female, M_{age} = 12.5) of 7th grade students (α = .74; Pintrich & De Groot, 1990) as well as high-school students (α = .79; Duncan & McKeatchie, 2005). Higher average scores indicate higher levels of self-regulation. The self-regulation subscale was selected as the focus of this study because it measured students' behavioral (e.g., involvement in academic tasks) and cognitive engagement (e.g., students' investment in learning). The internal consistency reliability of participants' responses to the MSLQ-self regulation subscale for this study was α = .67.

Proposed Analyses

Preliminary Analyses

Preliminary analyses were conducted using SPSS version 25. Prior to conducting the primary analyses, data were examined to assess for missing values, data distribution patterns, and basic group comparisons (e.g., examining differences across ethnicity using MANOVAs). In addition, correlations among all study variables were calculated to examine the basic interrelations among the measured constructs. Descriptive statistics related to demographic information were examined including gender, sex, race, ethnicity, sexual orientation, and age.

Participants with a significant amount of missing data on all or some of the measures (i.e., those who filled out less than half of the items) were removed from analyses. The method for replacing missing data was decided based on the percentage of missing data. That is, for small amounts of missing data (e.g., less than 5%), missing data is replaced using an expectation maximization (EM) algorithm which creates a single new dataset where the missing values are imputed with maximum likelihood values (Acock, 2005). EM is expected to produce unbiased parameter estimates when the data are missing cases at random (MCAR) (Acock, 1997 as cited in Fox-Wasylyshyn & El-Masri, 2005) thus we ran Little's MCAR test (Little, 1988) to determine if our data were missing cases at random and converged. If the amount of missing data is greater than 5%, we utilized Multiple Imputation to replace missing values with $m > 1$ simulated datasets and the results of these datasets were combined to produce estimates and confidence intervals (Schafer, 1999).

Primary Analyses

The proposed study utilized MPLUS version 8.3 to conduct path analysis. Through path analysis, correlational data are used to examine the various processes underlying one or more outcomes. Path analysis is an "extension of multiple regression analysis and estimates the magnitude and strength of effects within a hypothesized causal system" (Lleras, 2005, p. 25). Since relationships in a path analysis are expressed in terms of correlations and represent hypotheses posited by the researcher, the pathways cannot be tested for directionality (Lleras, 2005). The hypotheses for the primary analyses were as follows:

Hypothesis 1. ERI status (i.e., assimilation, multiculturalist inclusive) would be directly related to student engagement. If preliminary correlation analyses suggested that the student engagement (i.e., MSLQ, MADICS) and ERI (i.e., assimilation, multiculturalist inclusive)

variables are correlated, a path model would examine the relationship between the observed scores of ERI status and student engagement. The paths would provide regression coefficients that help examine the relationship between ERI statuses and student engagement. This approach would test the hypotheses 1a) an assimilation ERI status would have a negative relationship with self-regulation and school importance and 1b) a multiculturalist inclusive ERI status would have a positive relationship with self-regulation and school importance.

Hypothesis 2. ERI status (i.e., assimilation, multiculturalist inclusive) would be directly related to mental health. To answer this question, a path model was constructed that examined this pathway. If preliminary correlation analyses suggest that the mental health (i.e., depression, psychological well-being) and ERI status (i.e., assimilation, multiculturalist inclusive) are correlated, a path would be tested between ERI status (i.e., assimilation, multiculturalist inclusive) and mental health (i.e., depression, psychological well-being). More specifically, results would include regression coefficients for the paths between the observed scores of ERI status and mental health. This approach would test the hypotheses 2a) an assimilation ERI status would have a negative and positive relationship with psychological wellbeing and depression, respectively and 2b) a multiculturalist inclusive ERI status would have a positive and negative relationship with psychological wellbeing and depression, respectively.

Hypothesis 3. Mental health would mediate the relationship between ERI status (i.e., assimilation, multiculturalist inclusive) and student engagement. If preliminary correlation analyses suggest that student engagement (i.e., self-regulation, school importance), ERI status (i.e., assimilation, multiculturalist inclusive), and mental health scores (i.e., depression, psychological well-being) are correlated, a path would be tested between mental health, ERI status, and student engagement. This would test the following hypotheses: 3a) depression scores

would have a negative relationship with self-regulation and school importance; 3b) psychological wellbeing scores would have a positive relationship with self-regulation and school importance; and 3c) mental health scores will mediate the relationship between ERI status and student engagement.

Hypothesis 4. Purpose would mediate the relationship between ERI status (i.e., assimilation, multiculturalist inclusive) and student engagement. If preliminary correlation analyses suggested that student engagement (i.e., self-regulation, school importance), ERI status (i.e., assimilation, multiculturalist inclusive), and purpose scores were correlated, a path would be tested between purpose, ERI status, and student engagement. This would test the following hypotheses: 4a) purpose would have a negative and positive relationship with assimilation and multiculturalist inclusive ERI statuses, respectively; 4b) purpose would have a positive relationship with self-regulation and school importance; and 4c) purpose scores will mediate the relationship between ERI status and student engagement.

Hypothesis 5. The relationship between ERI status (i.e., assimilation, multiculturalist inclusive) and mental health would be different across ethnicities. Since the measure for ERI status (i.e., CERIS-A) displayed strong internal consistency coefficients across ethnic-racial groups (Worrell et al., 2019), an exploratory path would be tested to determine if there are any differences between ERI status and mental health for POC and White adolescents. The relationship between ERI statuses and mental health may be different across ethnicities (e.g., Euro-American, African American). This would test whether there are different mental health outcomes for different ethnic groups despite endorsing the same ERI status.

CHAPTER FOUR

Results

Preliminary Analyses

The current study was part of a larger, longitudinal study that included approximately 1000 9-12th graders at Medford High School, a public high school in the greater Boston area. Data collection has taken place across five years (i.e., one wave per year for a total of five waves). For the fifth wave, data was only collected from 12th graders due to a reduction in funding. Data on central measures for this dissertation (e.g., CERIS-A, CPS) were only collected during the fifth wave of data collection. Thus, the current study focused on 273 high school seniors who completed the survey during the fifth wave and were comparable in demographic breakdown to the larger sample across ethnicity, gender identity, sexual orientation, and age (see **Table 3**).

Missing Data

Consistent with what was outlined in Chapter 3, participants who answered less than 50% of the entire survey were removed from the analysis. One student was removed for not replying to any of the measures. With the remaining 272 participants, Little's MCAR test was run and confirmed that the data converged and were missing cases at random. The percentage of missing data on the variables of interest differed with 8% and 11% of data missing for the CERIS-A and CPS measures, respectively; there was less than 2% of missing data on all other measures in this study. Since more than 5% of the data were missing, imputation was used to replace missing values. Imputation in MPLUS (Muthen & Muthen, 2017) at the item level was used to impute missing values with plausible simulated values based on the actual data. Imputation is an optimal method for handling missing data and reduces the statistical bias that is associated with list-wise

Table 3
Participant Demographics

	Sample Size	Percentage
Total Students	272	100
Average Age (Years)	18.39	
Gender		
Female	152	56.3
Male	109	40.4
Transgender	4	1.5
Gender Non-Conforming	5	1.9
Ethnicity		
White or Euro-American	127	47.9
Black or African American	23	8.7
Haitian	15	5.7
Caribbean	11	4.2
Latinx or Hispanic	23	8.7
Brazilian or Portuguese	32	12.1
Asian	15	5.7
Asian American	11	4.2
Pacific Islander	3	1.1
Native American	5	1.9
Sexual Orientation		
Heterosexual	202	76.5
Mostly heterosexual	17	6.4
Bisexual	25	9.5
Mostly gay	3	1.1
Gay or lesbian	6	2.3
Unsure	6	2.3
Other	5	1.9

deletion or mean substitution (Schafer & Graham, 2002; Schlomer, Bauman, & Card, 2010). Multiple imputation was used to replace the missing data with 100 simulated datasets and the results of these datasets were combined to produce estimates and confidence intervals for the primary analyses.

Assumptions of Path Analysis

Prior to running the primary analyses, the dataset had to be checked to see if it met the assumptions of path analysis. The assumptions of path analysis are: 1) the error terms should be uncorrelated; 2) the variance of the error term should be constant (i.e., homoscedasticity); 3) no multicollinearity or high correlation amongst the predictor variables; 4) and the error terms should be normally distributed.

Auto-correlations. To test the first assumption, we examined the data for any correlated errors or auto-correlations. A lag-1 autocorrelation is the presence of correlated errors that distort estimates of standard errors, confidence intervals, and statistical tests and therefore violates the assumption of independence. Auto-correlations can be tested through the Durbin Watson statistic. According to the Stanford table for the Durbin-Watson critical values, the critical values of Durbin Watson with $\alpha = .05$ and $k = 5$, are dL (1.68) and dU(1.76). For this analysis, both of the Durbin-Watson values for self-regulation ($dw = 1.80$) and school importance ($dw = 1.83$) fall above 1.76, therefore the null hypothesis is accepted and we can conclude that the errors are independent.

Homoscedasticity. Homoscedasticity of the residuals mean they have equal variance throughout the range of the predictor and that the distribution of the residuals (at any point) is roughly normal. This can be checked by looking at skewness and kurtosis. Specifically, skewness assesses the extent to which a variable's distribution is symmetrical, and kurtosis measures whether a variable's distribution is too narrow and clustered in the center (Hair Jr., Hult, Ringle, & Sarstedt, 2017). All of the subscale scores were within the skewness range of -1.00 to 1.00, which indicates normal distributions of scores. In addition, all of the subscale scores were within a kurtosis range of -1 to 1 except youth purpose (1.09) which suggests that its distribution was slightly narrow.

Multicollinearity. Multicollinearity refers to intercorrelations among the independent variables which affects the standard errors of the coefficients, the magnitude of the regression coefficients, and the percent of variance accounted for by each of the variables. There are several statistics that contribute to diagnosing multicollinearity. Tolerance assesses the unique predictor variance that is measured and the variance inflation factor (VIF) measures the impact of collinearity among the variables in a regression model. Tolerance values that are < .20 prompt further investigation as multicollinearity may exist among the predictor variables (Menard, 1995). Also, a VIF value that exceeds 4 warrants investigation as there may be multicollinearity among the variables in the model. For our dataset, all of the VIF and tolerance values were < 2 and > .64, respectively. Finally, Pearson correlation analyses were run amongst the variables to determine if any of the predictor variables were highly correlated; none of the predictor variables were correlated above .460 (see appendix for **Table 4**).

Normally Distributed Errors. To test the condition of normality, histograms were checked for both school importance (see **Figure 1**) and self-regulation (see **Figure 2**)—both of the histograms suggest that the data was relatively normal with the exception of two outliers on the negative and positive ends of the curve for school importance. Moreover, P-P Plots were used to determine if the observed values generally fell along the expected normal values. The P-P Plots for school importance (see **Figure 3**) and self-regulation (see **Figure 4**) were generally normal with some minor deviations.

Primary Analyses

MPLUS (Muthen & Muthen, 2017) version 8.5 was used to conduct the path analysis. A path analysis may be conducted when there are multiple exogenous (i.e., multiple paths come from it and none lead to it) and endogenous (i.e., at least one path leads to it) variables. Through

Figure 1

Histogram of School Importance

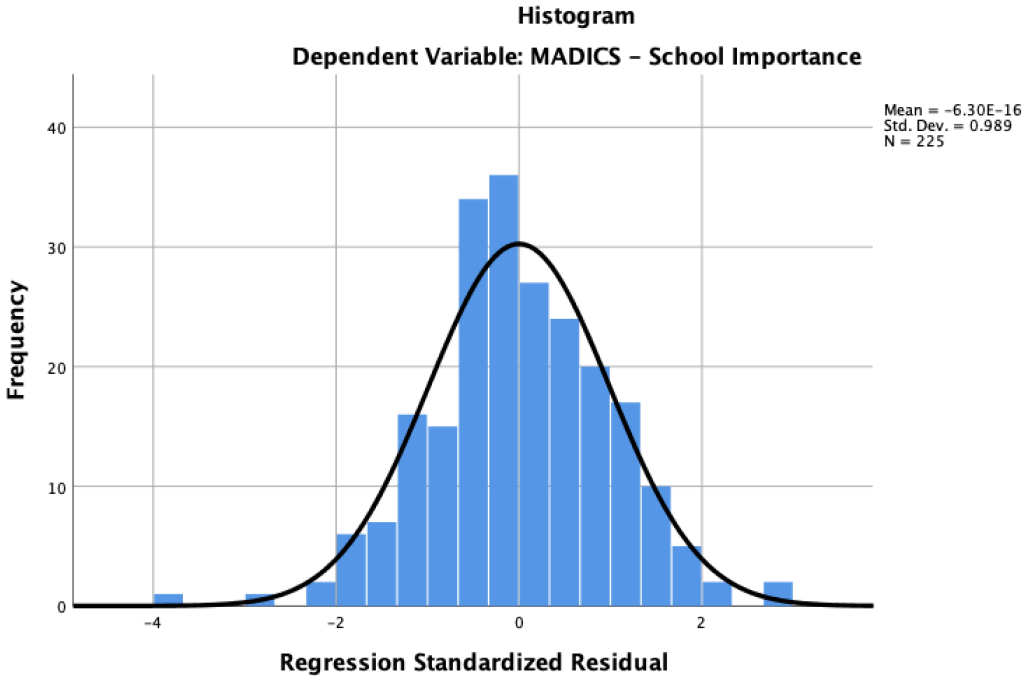


Figure 2

Histogram of Self-Regulation

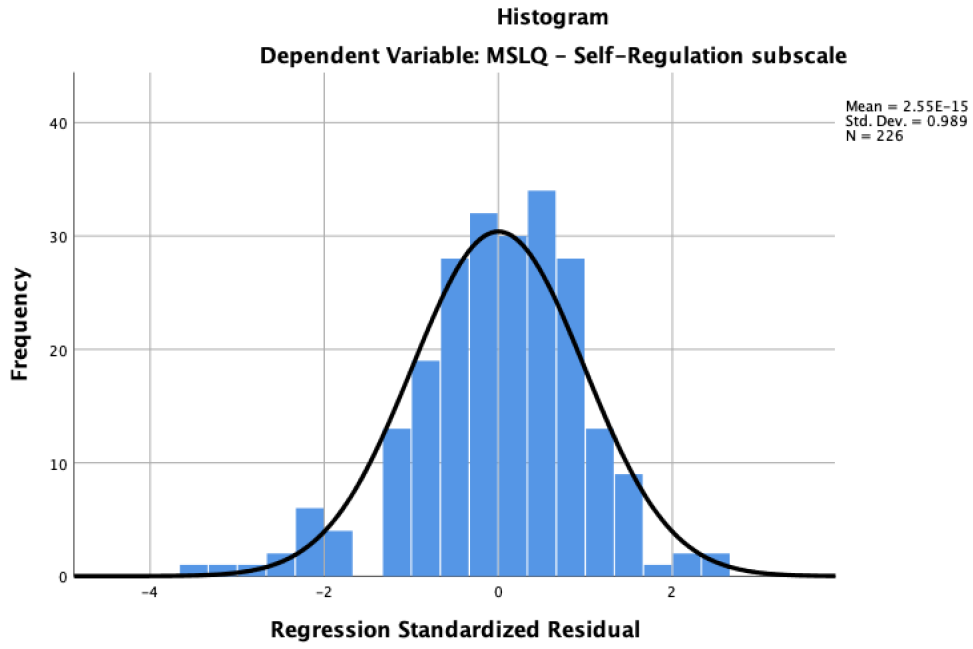


Figure 3

P-P Plot of School Importance

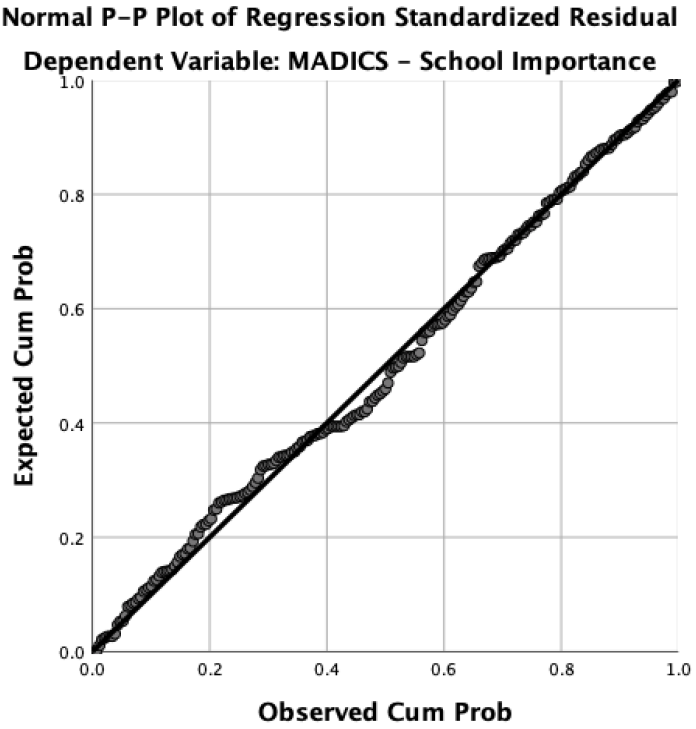
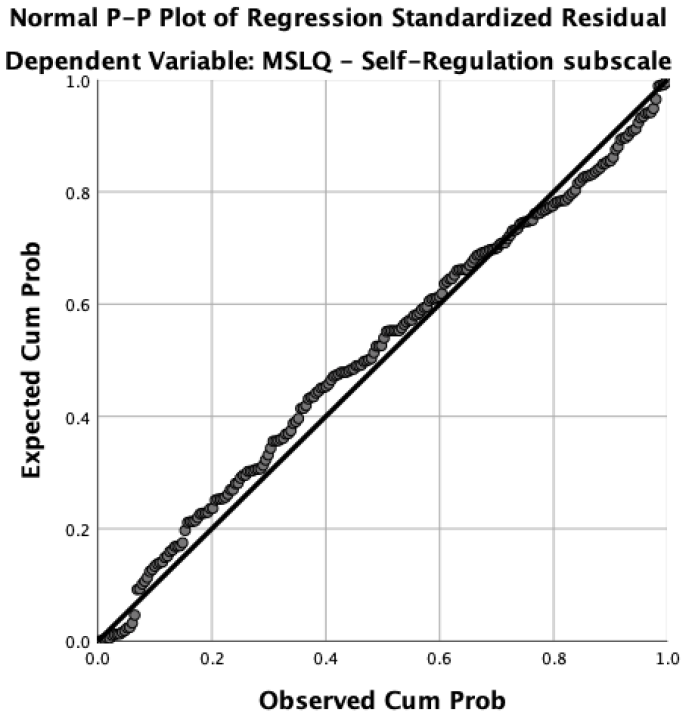


Figure 4

P-P Plot of Self-Regulation



path analysis, correlational data was used to examine the hypotheses of this study, along with the various processes underlying one or more outcomes.

Path Analysis

Path analysis with MPLUS (Muthén & Muthén, 2017) was used to test a) the direct effects of assimilation and multiculturalist inclusive statuses (i.e., exogenous variables) on youth purpose, depression, and psychological well-being (i.e., endogenous variables); b) the direct effects of youth purpose, depression, and psychological well-being (i.e., endogenous variables) on self-regulation and school importance (i.e., endogenous variables); c) the indirect effects of assimilation and multiculturalist inclusive statuses (i.e., exogenous variables) on self-regulation and school importance (i.e., endogenous variables) through youth purpose, depression, and psychological well-being (i.e., endogenous variables); d) group differences by ethnic-racial group for the relationships between the assimilation and multiculturalist inclusive statuses (i.e., exogenous variables) and depression and psychological well-being (i.e., endogenous variables).

MPLUS (Muthén & Muthén, 2017) produces goodness of fit indices to determine whether each model is a good fit to the data. The chi-square (χ^2) test of model fit examines whether the model estimates sufficiently reproduce the sample variances and covariances; the desired outcome is to accept the null hypothesis which suggests that the model fits the data well (Brown, 2015). In addition to the χ^2, MPLUS also produces the following fit indices: standardized root mean square residual (SRMR) is the average discrepancy between the correlations observed in the input matrix and the correlations predicted by the model; root mean square error of approximation (RMSEA) assesses the extent to which a model fits reasonably well in the population; and the comparative fit index (CFI) and Tucker Lewis index (TLI) evaluates the fit of a user-specified solution in relation to a more restricted, baseline model

(Brown, 2015). Hu and Bentler (1999) offer the following guidelines for assessing reasonably good fit between the target model and the observed data: 1) SRMR values that are close to .08 or below; 2) RMSEA values that are close to .06 or below; and 3) CFI and TLI values that are close to .95 or greater.

Model Specification

Path analysis examines the relationship between observed variables and assumes no error in how variables are measured. Model 1 posits that the assimilation and multiculturalist inclusive variables will have a direct relationship with the purpose, depression, and psychological well-being variables. Moreover, it was specified that the assimilation and multiculturalist inclusive variables would have an indirect relationship with self-regulation and school importance through purpose, depression, and psychological well-being. The exogenous variables (i.e., assimilation, multiculturalist inclusive) were specified to covary as well as the residuals of the endogenous variables. While endogenous variables cannot be specified to covary, the residuals can be covaried if a correlation is desired between the endogenous variables (Kenny, 2011). Model 3 was an exploratory model that examined the relationship between the exogenous (i.e., assimilation, multiculturalist inclusive) and endogenous variables (i.e., depression, psychological well-being) differed across ethnic-racial group.

For the initially proposed model, Model 1 (see **Figure 5**), tested four direct paths between ethnic racial identity statuses and self-regulation and school importance; the fit indices showed that this model was not the best fitting model for the sample data ($\chi 2 = 61.23$, df = 3, $p < .05$). Values for CFI, TLI, SRMR, and RMSEA were .656, .000, .136, and .274, respectively; each of these values suggested poor fit. Post hoc analyses using modification indices in MPLUS

suggested several modification indices greater than 10.00; much of the modifications focused on covarying the residuals of the endogenous variables thus reducing our chi-square.

Model 2 (see **Figure 6**) eliminated the direct paths between the ethnic racial identity statuses and student engagement, given that the primary focus of the model focused on ethnic racial identity status being indirectly related to student engagement through mental health and purpose. The fit indices for Model 2 were improved and suggested good model fit to the sample data ($\chi 2 = 4.23$, df = 4, $p > .05$). Moreover, the values for CFI, TLI, SRMR, and RMSEA were .999, .995, .019, and .015, respectively; each of these values suggested good fit.

Tests of Hypotheses

Hypothesis 1: ERI status (i.e., assimilation, multiculturalist inclusive) would be directly related to student engagement (i.e., self-regulation, school importance).

Model 1 tested the direct effect of ERI status (i.e., assimilation, multiculturalist inclusive) on student engagement (i.e., self-regulation, school importance). When this model was run, there were several modification indices greater than 10.00 that made the model a poor fit. The modification indices recommended covarying the exogenous variables and the residuals of the endogenous variables; adding these modifications created a just-identified model which meant that there were zero degrees of freedom. Given that a primary focus of this dissertation was to test the indirect relationship between ERI status and student engagement, the direct effects were not specified in the modified model (i.e., Model 2) that was tested.

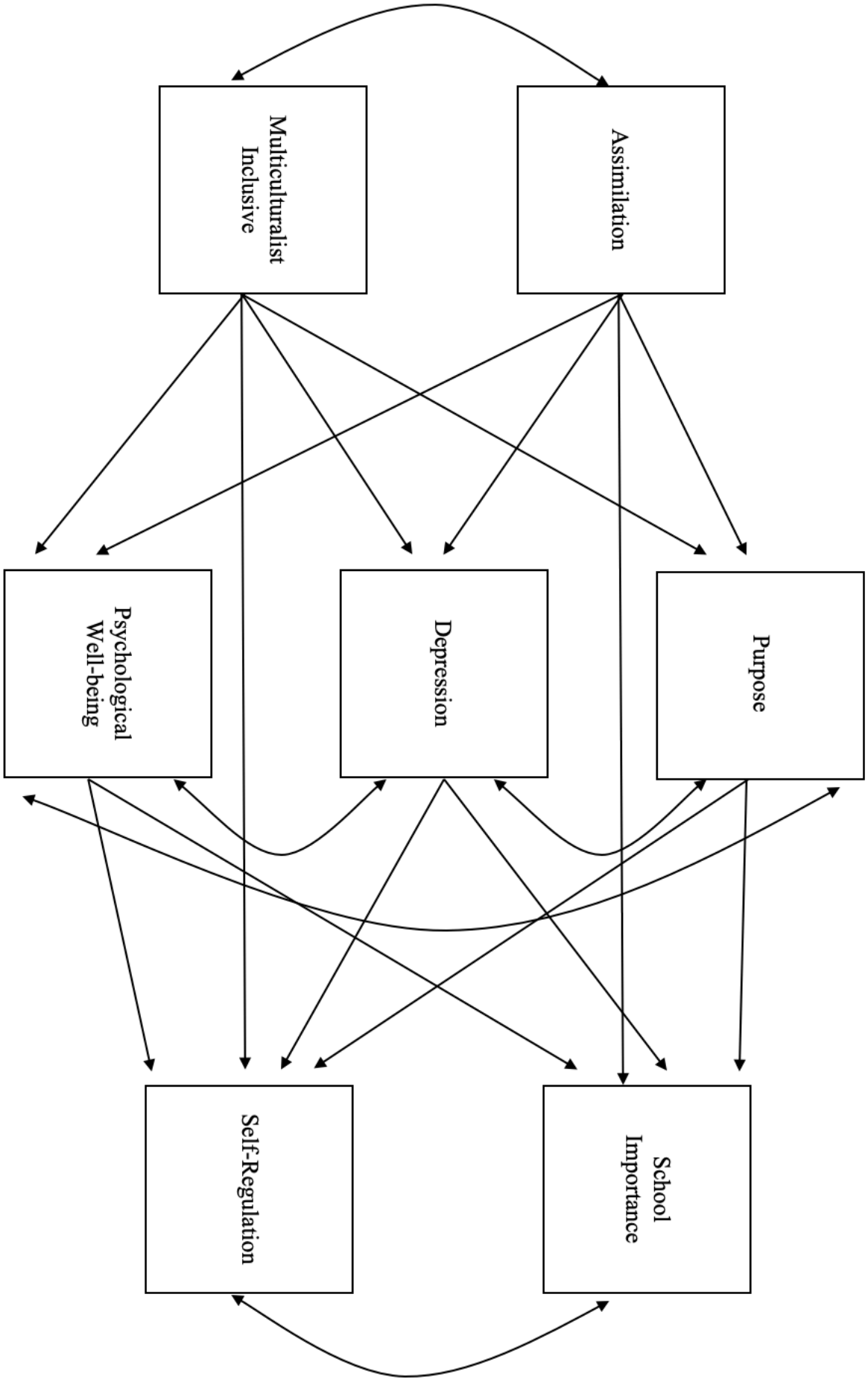


Figure 5

Initial Mediation Model of Ethnic Racial Identity Status and Student Engagement.

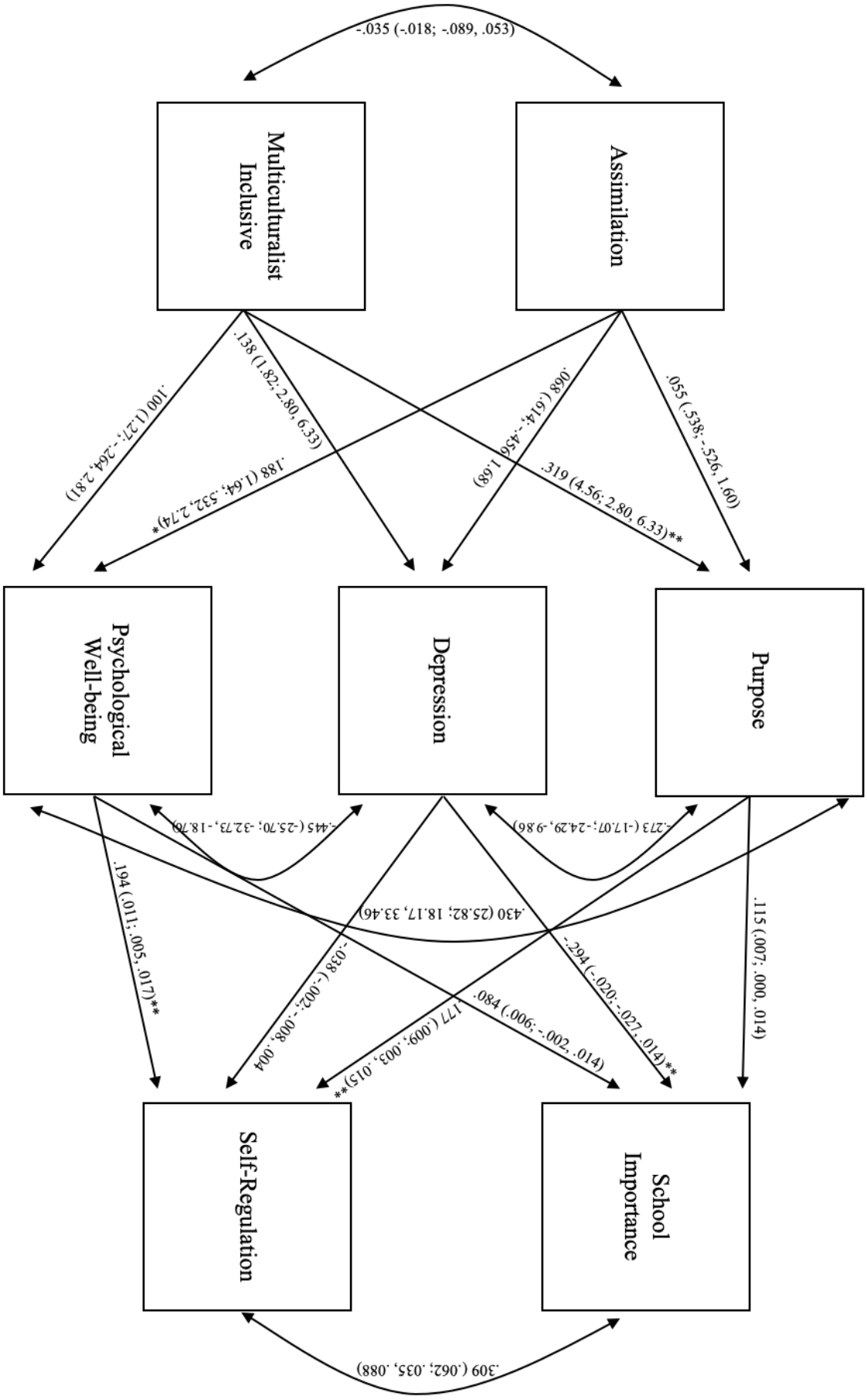


Figure 6

Mediation Model of Ethnic Racial Identity Statuses, School Importance, and Self-Regulation.

Note: Path coefficients are standardized, with unstandardized coefficients and 95% confidence intervals in parentheses
* indicates p < .05. ** indicates p <.01

Table 5

Means and Standard Deviations for White and POC Adolescents

	White (*n* = 125)	POC (n=138)	Total (n=263)
	Mean (SD)	Mean (SD)	Mean (SD)
Multiculturalist Inclusive	3.41 (.54)	3.46 (.63)	3.44 (.59)
Assimilation	3.34 (.75)	2.69 (.85)	3.01 (.87)
Depression	28.09 (8.07)	28.34 (7.77)	28.22 (7.90)
Psychological well-being	34.52 (7.12)	33.07 (8.01)	33.77 (7.62)
Purpose	43.13 (8.09)	43.05 (8.58)	43.18 (8.32)
Self-regulation	3.05 (.43)	3.16 (.41)	3.11 (.42)
School importance	3.21 (.54)	3.26 (.54)	3.24 (.54)

Hypothesis 2: ERI status (i.e., assimilation, multiculturalist inclusive) would be directly related to mental health (i.e., depression, psychological well-being).

Model 2 was a good fit to the data. Hypothesis 2 was partially supported (see **Figure 6**). The assimilation variable was directly related with psychological well-being ($p < .05$) and not directly related with depression ($p > .05$). The multiculturalist inclusive variable was not significantly directly related to depression or well-being ($p > .05$). However, the multiculturalist inclusive relationship with depression approached significance ($p = .059$).

Hypothesis 3: Mental health would mediate the relationship between ERI status (i.e., assimilation, multiculturalist inclusive) and student engagement (i.e., self-regulation, school importance).

Hypothesis 3 was not supported (see **Table 6**). There was partial support for a direct relationship between mental health and student engagement. Specifically, depression was negatively associated with school importance; however, there was no direct relationship between depression and self-regulation. Moreover, there was a direct relationship between psychological well-being and self-regulation; however, there was no direct relationship between psychological well-being and school importance (see **Figure 6**). Finally, there were no significant indirect

effects between the assimilation and multiculturalist variables and self-regulation and school importance variables through the depression and psychological well-being variables ($p > .05$).

Hypothesis 4: Purpose would mediate the relationship between ERI status (i.e., assimilation, multiculturalist inclusive) and student engagement (i.e., self-regulation, school importance).

Hypothesis 4 was partially supported (see **Table 6**). There was a significant indirect relationship between the multiculturalist inclusive attitude and self-regulation through purpose (*p*

Table 6

Indirect Effects Estimates for Proposed Path Analysis

Indirect effects	Indirect effect (Standardized)		Bootstrap 95% CI	
	β	*SE*	*LL*	*UL*
Self-regulation on multiculturalist inclusive				
Total	.070	.037	.009	.132
Through purpose	.057*	.026	.015	.098
Through depression	-.005	.010	-.021	.011
Through psychological well-being	.019	.017	-.008	.047
Self-regulation on assimilation				
Total	.043	.031	-.007	.094
Through purpose	.010	.013	-.011	.031
Through depression	-.003	.007	-.013	.008
Through psychological well-being	.036	.020	.003	.070
School importance on multiculturalist inclusive				
Total	.004	.032	-.049	.057
Through purpose	.037	.023	-.002	.075
Through depression	-.041	.024	-.080	-.001
Through psychological well-being	.008	.011	-.009	.026
School importance on assimilation				
Total	.002	.035	-.055	.059
Through purpose	.006	.010	-.009	.022
Through depression	-.020	.022	-.056	.016
Through psychological well-being	.016	.017	-.011	.043

* indicates $p < .05$.

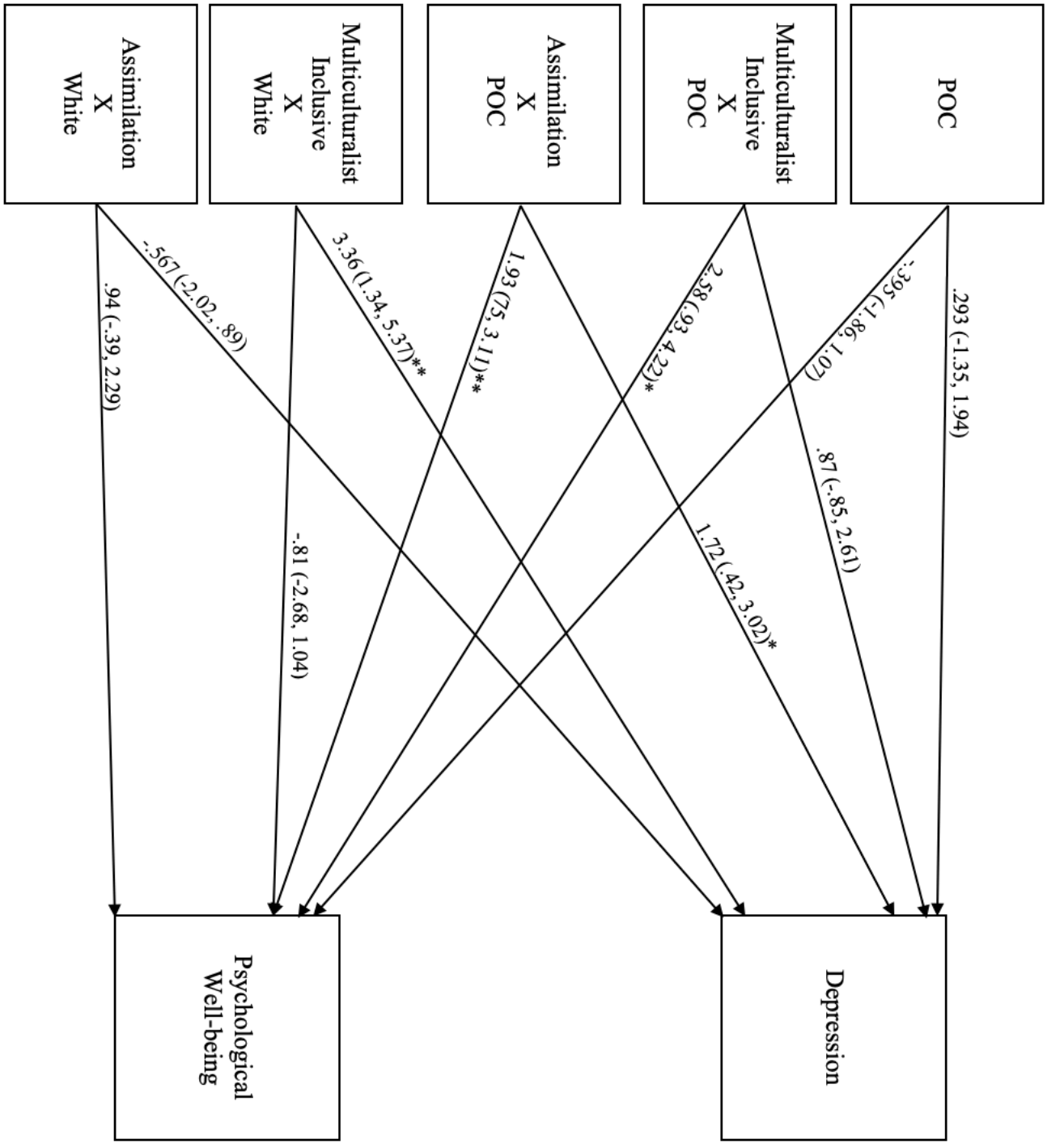
< .01); however, there was no significant indirect relationship between multiculturalist inclusive attitude and school importance through purpose ($p > .05$). Moreover, there were no significant indirect relationships between the assimilation status and school importance or self-regulation through purpose ($p > .05$).

Hypothesis 5: The relationship between ERI status (i.e., assimilation, multiculturalist inclusive) and mental health would be different across ethnicities (i.e., depression, psychological well-being).

Model 3 explored whether the relationship between ethnic racial identity status and mental health would differ for POC and White adolescents. The fit indices for Model 3 were suggested good model fit to the sample data ($\chi2 = 9.23$, df = 9, $p > .05$). Moreover, the values for CFI, TLI, SRMR, and RMSEA were .999, .996, .023, and .010, respectively; each value suggested good fit. Hypothesis 5 was partially supported (see **Figure 7**). There was a positive relationship between the multiculturalist inclusive status and psychological well-being for POC ($p < .05$). That is, POC (compared to their White counterparts) indicated a greater positive association between multiculturalist inclusive status and psychological well-being. Meanwhile, there was not a significant relationship between the multiculturalist inclusive status and depression for POC ($p > .05$). There was a significant positive relationship between assimilation status and depression and psychological well-being for POC ($p < .05$). There was a significant positive relationship between multiculturalist inclusive and depression for White adolescents ($p < .05$). That is, White adolescents (compared to their POC counterparts) indicated a greater positive association between multiculturalist inclusive status and depression. There was no statistical significance among the remaining relationships between multiculturalist inclusive and assimilation with depression or psychological well-being for White adolescents ($p > .05$).

Figure 7

Group Comparison of Ethnic Racial Identity and Mental Health for POC and White Adolescents.



Note: Path coefficients are unstandardized coefficients with 95% confidence intervals in parentheses
* indicates $p < .05$. ** indicates $p < .01$

CHAPTER FIVE

Discussion

Existing research suggests that POC students who positively identify with their own ethnic or racial group are more likely to be academically engaged (Rivas-Drake, Seaton et al., 2014). However, the mechanisms for this association between ERI and student engagement are not entirely understood. Some research suggests that positive feelings towards one's ethnic or racial group are associated with positive mental health outcomes (Rivas-Drake, Syed et al., 2014) which in turn are associated with student engagement. In other words, mental health mediates the relationship between ERI and student engagement. Based on existing research, it has also seemed possible that youth purpose the relationship between ERI and student engagement, because it plays an important role in academic engagement, and in mental health and wellbeing (Hill et al., 2018; Liang, et al, 2016; Liang et al., 2017). The role of purpose has been described as especially significant among students from marginalized backgrounds (Sumner et al., 2018).

The current findings provide a more nuanced understanding of all of these relationships. Youth purpose did mediate the relationship between ERI status and student engagement. Mental health, however, did not mediate the relationship between ERI status and student engagement. There was partial support for the direct relationship between ERI and mental health. Moreover, a direct relationship between mental health and student engagement was partially supported. Similarly, a direct relationship between purpose and student engagement was partially supported. Finally, the relationship between ERI status and mental health differed between POC and White adolescents in this study. These findings are discussed in greater detail below.

ERI Status and Mental Health

Two aspects of ERI status were examined: assimilation (i.e., attitudes in which individuals define identities in nationalistic rather than ethnonationalist terms) and multicultural inclusive (i.e., positive attitude towards one's ethnic-racial group as well as other ethnic-racial groups) (Worrell et al., 2019). The findings suggested that increased assimilation attitudes were associated with increased psychological well-being. But assimilation attitudes were not significantly associated with depression. These findings contradicted existing research that suggests that assimilation is negatively associated with psychological well-being (Iwamoto & Liu, 2010; Pierre et al., 2005; Pillay, 2005).

These findings may be explained by research in which assimilation attitudes buffer the negative impact of racial discrimination among African Americans (Sellers & Shelton, 2003). Other existing research has suggested that assimilation may be associated with perceiving fewer racist stress events and lower racist stress appraisals in Black women (Jones, Cross Jr., & DeFour, 2007). In other words, highly assimilated people may simply not notice racism even when it is present in their lives. In this way, assimilation attitudes may serve as a protective factor against race- or ethnic-based discrimination and prejudice for POC. It may be that there are POC who do not fully acknowledge their ethnic and racial backgrounds and this assimilation strategy does not keep them from defining themselves nationalistically (i.e., American). Meanwhile, little research has examined the benefits of assimilation attitudes on the psychological well-being of White adolescents. Moreover, Erikson (1968) posits that adolescence is a period of identity versus role confusion; a period that consists of adolescents attempting to become independent while also striving for belonging among peers and society at large. Given that adolescents seek to belong, assimilation becomes a viable strategy for POC and White adolescents trying to fit into their contexts.

Interestingly, the findings of the current study demonstrate that another status of ERI, multiculturalist inclusive, was not directly related with psychological well-being or depression. We expected, based on previous research, that multiculturalist inclusive ERI status would be associated with increased psychological well-being and decreased distress (Franklin-Jackson & Carter, 2007; Pieterse et al., 2010). But, in this first study this aspect of ERI among POC and White adolescents, multiculturalist inclusive status was associated with psychological well-being among POC, but among White adolescents this ERI status is associated with increased depressive symptoms. A possible explanation for these enigmatic findings is that multiculturalist inclusivity for POC versus for White students might cancel each other out. More specifically, my follow up analyses showed that multiculturalist inclusivity was associated with psychological wellbeing for POC and with depression for White adolescents. Thus, these opposite effects may wipe each other out which may have resulted in the lack of a direct relationship between multiculturalist inclusive and depression or psychological well-being.

Mental Health as a Mediator of ERI status and Student Engagement

As it turned out, the link between mental health and student engagement was similarly complex. Depression was negatively associated with one aspect of student engagement (school importance) but not the other (self-regulation). On the other hand, psychological well-being was positively associated with self-regulation, but not with school importance. Other literature explains why depression is especially linked with school importance in that depressive symptoms include a "markedly diminished interest or pleasure in activities," such as school activities (American Psychiatric Association, 2013). Students endorsing depressive symptoms are likely to withdraw from school or school-based activities. On the other hand, students with greater psychological well-being are more self-regulated (Deci & Ryan, 2008). Nevertheless, the current

findings did not provide support for the hypothesized indirect relationship between ERI status and student engagement through mental health.

Previous research has linked multicultural inclusivity and psychological well-being among adolescents (Rivas-Drake, Seaton et al., 2014). Moreover, the relationship between ERI status and academic performance has varied by ethnic group and ranges from no effect to negative effects (Guzman, 2002; Ivory, 2003; Sellers, Chavous, & Cooke, 1998). However, a positive racial or ethnic identity has been consistently associated with student engagement (Rivas-Drake, 2015). The current study's lack of indirect associations between ERI status and student engagement through mental health may be due to this study's diverse population. Previous studies have often focused on a specific ethnic group (e.g., Mexican, Puerto Rican) whereas this study included eleven different ethnic groups. And while individuals may show differences in their ERI, mental health, and student engagement, entire ethnic groups may also experience collective differences due to events that are occurring at a school-wide or societal level. For example, since the COVID-19 pandemic, there has been an increase in hate crimes against Asian and Asian-Americans which can impact students' mental health as well as academic engagement (Lee & Waters, 2021; Tausen, Jin, Kim, Law, & Kendall, 2020). It stands to reason that the lack of indirect associations between ERI status and student engagement through mental health may be the result of such wide-ranging ethnic differences in experience and mental health.

Purpose as a Mediator of ERI status and Student Engagement

Consistent with research suggesting significant associations between purpose and academic engagement (Damon, 2009), purpose had a positive association with self-regulation. Interestingly, however, the hypothesized relationship between purpose and school importance

was not significant. If school importance reflects an emphasis on short-term academic goals, a possible interpretation of the current findings may be that purposeful adolescents are not particularly focused on the short-term goals of academic success, but rather the longer-term aspirations.

The model whereby purpose mediated the relationship between ERI status and student engagement was partially supported. Specifically, there was an indirect positive relationship between multiculturalist inclusive and self-regulation through purpose. An integral piece of multiculturalist inclusivity is valuing the perspectives of other ethnic-racial groups (Umaña-Taylor et al, 2014). Valuing the perspectives of other ethnic-racial groups may help adolescents identify prosocial aims which require identifying ways to impact others beyond the self—a component of purpose (Damon et al., 2003). Therefore, students who endorsed the multiculturalist inclusive ERI status may be more purposeful and act on it through self-regulation—a behavioral (e.g., involvement in academic tasks) and cognitive type of engagement (e.g., investment in learning).

In addition, Sumner and colleagues' (2018) proposed a framework that suggests marginalization experiences lead to purpose development which may help explain why purpose mediates the relationship between multiculturalist inclusive and self-regulation for POC adolescents. More specifically, POC belong to ethnic-racial groups that may experience racism and/or xenophobia (i.e., marginalization) which may contribute to the development of their purpose. POC adolescents who experience marginalization may commit to a prosocial goal that improves the issues faced by their social groups (Godfrey & Cherng, 2016; Malin et al., 2015). Adolescents who endorsed the multiculturalist inclusivity experienced higher levels of purpose, thus improving the self-regulation needed in order to accomplish an ultimate or long-term aim.

There was no support for the remaining paths between ERI status and student engagement. Specifically, there was no indirect relationship between multiculturalist inclusivity and school importance through purpose. Similarly, there were no indirect relationships between assimilation and student engagement (i.e., self-regulation, school importance) through purpose. This lack of association between purpose and assimilation might be explained in that assimilated adolescents tend to lack a deep awareness of problematic contextual influences on identity (Umaña-Taylor et al, 2014) which in turn can fuel a sense of purpose, and desire to contribute to making the world better and more just. In contrast, assimilated students are likely to buy into U.S. cultural values such as meritocracy and individualism. These are extrinsic values, rather than intrinsic values like prosociality and purpose. In sum, in contrast to multiculturalist inclusivity, assimilation is not as conceptually aligned with prosociality, and thus it makes sense that assimilation and purpose were not statistically related.

Group Differences for ERI Status and Mental Health among POC and White Adolescents

The current findings supported the hypothesis that the relationship between ERI status and mental health would be different amongst POC and White adolescents. There was a positive relationship between an assimilation ERI status and depression for POC. In other words, POC were more likely to report depressive symptoms if they assimilated. White adolescents reported less depressive symptoms with the assimilation ERI status. These findings are consistent with previous studies that have demonstrated a positive association between assimilation and depression symptoms for POC (Iwamoto & Liu, 2010; Pierre & Mahalik, 2005; Pillay, 2005). POC who endorse the assimilation status identify themselves in nationalist terms and downplay their ethnic-racial group membership by definition. Thus, it is likely that this assimilation status keeps them from seeking and embracing social supports from their communities of Color. It

stands to reason that a lack of social support from people from their own backgrounds may contribute to depressive symptoms. Moreover, POC with an assimilation ERI status may lack insight into the effects of racism toward their ethnic-racial group. And this lack of critical consciousness or understanding of systemic racism may make them vulnerable to self-blame and internalized symptoms such as depression.

Interestingly, there was a more significant association between the assimilation ERI status and psychological well-being for POC. Assimilation has been identified as one of four strategies for immigrants to acculturate to their host society (Berry, 1980). More assimilated POCs had greater psychological well-being. This finding may be explained in that the POC group was comprised of many ethnicities such as Brazilians, Asians, and African Americans; and associations between assimilation and well-being may vary across POC subgroups. In some POC subgroups, assimilation may be harmful, while in others it may be protective. Recent immigrants may come to the U.S. hoping to assimilate or fit in, and relieved when they do, thus increasing their psychological well-being. On the other hand, POC born and raised in the United States are likely exposed to racism and reduced well-being. For example, Asian Americans who were less assimilated reported higher depression rates (Hasin, Goodwin, Stinson, & Grant, 2005; Kuo, Chong, & Joseph, 2008; Okazaki, 1997). Similarly, Black Caribbean immigrants may define their ethnic-racial identities as distinct from Black Americans (Douyon, 2020), and assimilation for Black immigrants may be more beneficial than it is for Black Americans.

In the current study, where POC attended a predominantly White (60.3%) high school, identifying as assimilated would make POC a part of the dominant/majority group within the school. So, an assimilation ERI status would likely be a protective factor in this setting. Assimilated POC would potentially be subject to less conflict with White students, and enjoy a

greater awareness of and insight into the values and expectations of their high school. This greater level of "fit" with the values of their setting likely contributed to greater well-being.

There was a positive association between the multiculturalist inclusive ERI status and depression for White students. It may be that White students grapple with the morality of promoting their own ethnic-racial identity. In recent years, various movements, such as Black Lives Matter have influenced White students, in particular, to reconcile that they have benefitted from racism that has oppressed or marginalized other ethnic-racial groups. The White racial identity model includes a disintegration status that reflects the disorientation associated with recognizing race as a construct and forcing an individual to choose between loyalty to their own ethnic-racial group or humanism (Helms, 1995). It is possible that the current results capture "White guilt" associated with advancing in racial identity by benefitting from racism. If so, a possible modification to the ERI model may be needed for White people experiencing guilt versus those not experiencing guilt. The increase in depression associated with multiculturalist inclusive ERI status for White people may be temporary but critically timed, as it comes during the adolescent years that are most impressionable.

Findings from the current study also suggested a significant positive relationship between multiculturalist inclusive and psychological well-being for POC. This finding is consistent with previous research that has documented positive feelings towards one's ethnic-racial group is associated with increased psychological well-being (Le et. al, 2009; Pillay, 2005; Sellers et. al, 2006). Similarly, positive feelings towards others' ethnic-racial groups have been associated with increased self-esteem (Umaña-Taylor et. al., 2009). POC in this study may have experienced improved self-esteem, self-worth, and psychological well-being when they felt more connected to their ethnic-racial group. In addition, feeling connected to one's ethnic-racial group may also

contribute to increased social support among family members, peers, and people within the community who share a similar ethnic-racial group. Social support buffered the impact of stress on adolescents (Gutowski et. al, 2017). The current study found no significant relationship for the multiculturalist inclusive ERI status and depression for POC. This is counter to previous research that suggests that ethnic and racial pride are associated with decreased psychological distress (Rivas-Drake, Seaton et al., 2014).

Limitations

The current study is one of the first to investigate the underlying mechanisms for the relationship between ERI and student engagement. Specifically, this study examines the mediating role of purpose and mental health on the relationship between ERI and student engagement. Additionally, this study also examined whether the relationship between ERI and mental health differed across ethnic-racial groups. However, there are a number of important study limitations that should be addressed in future research. The remainder of the current study will outline these limitations as well as their relevance to future research, and end with a summary of important conclusions.

The data from the current study was cross-sectional, therefore the results do not prove causality or the order of associations among the variables. Experimental research is needed to examine causal relationships between the study variables. Moreover, longitudinal research can better assess the long-term effects of ERI status on student engagement as well as determine whether changes in an individual's ERI status over time impact other outcomes. Another limitation is the use of only self-report measures which do not provide a holistic picture of students' understanding of their experiences and the larger context of their lives. Moreover, the scales measuring purpose, mental health, and student engagement were normed on majority

populations (i.e., White, middle class participants) and thus may not capture what they intend to capture for participants from ethnic and/or racial minority groups in the United States. The study would have benefited from the use of other indicators of school performance (e.g., GPA, attendance), and methods for triangulating the findings.

While the current study benefited from the inclusion of a diverse high school population, it combined the experiences of nine different ethnicities to create a POC group to be compared to White students. Therefore, it was a limitation to assume that members of several ethnicities would endorse ERI statuses in a similar way as well as experience similar outcomes. Future studies should examine larger samples, obtain enough participants within each ethnic group to compare to other groups, and collect data from multiple schools.

The design of the survey was another limitation in this study. The two key surveys in this study (i.e., CPS and CERIS-A) were added to the end of a questionnaire that had over 200 questions belonging to a larger study. There was a pattern of missing data on surveys for the final two measures. Additionally, the CERIS-A was normed on an adult population and modified to be given to an adolescent population. Moreover, the MADICS was shown to have low internal consistency coefficients and can contribute to Type II errors (i.e., rejection of a true hypothesis within the analyses). Finally, since the current study focused on student engagement as a key variable, the survey would have benefitted from additional student engagement measures.

Implications for Future Research

Despite these limitations, this study provides several directions for future research in addition to those previously mentioned. Future research should examine whether this study's mediation model holds true for college students. College is a period when students become increasingly aware of their identity (Chickering & Reisser, 1993; Kroger & Marcia, 2011). They

are developmentally able to engage in long-term planning which may increase their capacity to be purposeful. Future research should also include more measures of mental health (e.g., anxiety) to better understand the outcomes associated with ERI status. It would also be important to employ more sophisticated statistical analyses such as confirmatory factor analysis (CFA) which is a type of structural equation model (SEM) that examines the relationships between measures and latent variables (Brown, 2015). Moreover, CFA can be used to test hypotheses and relies on the researcher's a priori sense that is rooted in past evidence and theory (Brown, 2015). That is, CFA allows researchers to test the directionality of relationships and determine causality—an important step to understanding the relationship between ERI status and student engagement through purpose and mental health.

Qualitative research would also be beneficial in allowing for an in-depth investigation of the relationship between ERI status and purpose. For example, Sumner and colleagues (2018) proposed a framework that suggests adolescents may commit to prosocial intentions that alleviate the adversity or challenges faced by their social group. A qualitative study would allow future researchers to determine whether students' prosocial intentions are directly related to their ethnic-racial group, thus clarifying the association between a multiculturalist inclusive ERI status and purpose.

Moreover, future research should examine the relationship between ERI status and purpose differs across ethnic-racial groups because the results of this study highlighted a difference between ERI status and mental health across ethnic-racial groups (i.e., White, POC). Finally, Sumner and colleagues (2018) framework suggests that marginalization promotes purpose development—thus POC, who are likely to experience marginalization, may be more purposeful. Evidence that supports marginalization fostering purpose development would further

the field because it would highlight the importance of aiding POC in their ERI development as a possible purpose intervention. Similarly, given the recent nationwide protests across the country in 2020, future researchers should attempt to examine POC students' experiences of discrimination or racial trauma, and its impacts on ERI and purpose development.

Conclusion

Understanding the underlying mechanisms between ERI status and student engagement enables schools, mentors, and counselors to provide improved support to students of color. By bridging the literature on ERI and purpose literature, this study proposes a model that may address a gap in previous research and outlines a potential mechanism that explains the impact of ERI on student engagement.

POC are a group that is at heightened risk of marginalization as a result of racism or xenophobia. A side of effect of experiences of marginalization is that it may promote or inhibit purpose development (Sumner et al., 2018). Our findings indicate that ERI status was not directly related to mental health nor was it indirectly related to student engagement through mental health. However, ERI status, specifically multiculturalist inclusive, was directly related to purpose and indirectly related to self-regulation through purpose. Further, the relationship between ERI status and mental health differed for POC and White adolescents. That is, there was a positive association with psychological well-being for POC who endorsed either ERI status (i.e., assimilation, multiculturalist inclusive). For White students, there was a positive association between a multiculturalist inclusive ERI status and depression. It appears that purpose may explain additional relationships between ERI status and other outcomes. These results provide key insight into underlying mechanisms between ERI status and student engagement and may

promote the development of programs and resources that ultimately increase student engagement through developing their ERI, purpose, and psychological wellness.

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Appendix: Tables, figures, and measures

Table 1

Ethnic Racial Identity Model

Components	Definitions
Ethnic-Racial Identification	One's ethnic-racial self-labeling and identification.
Exploration	The process of seeking or being exposed to information about one's own ethnic-racial group.
Certainty	Identification with one's own ethnic racial group, despite experiences of marginalization (i.e. racism, discrimination), that is reinforced by family and peer influences.
Salience	The extent to which one's ethnicity-race is relevant to one's self-concept in a particular situation.
Centrality	The extent to which an individual considers their ethnicity or race to be an important aspect of their self-concept.
Affirmation	The positive affect that individuals feel towards their ethnic-racial group.
Public Regard	The extent to which an individual feel that others (individuals, groups, and the broader society) view their ethnic-racial group positively or negatively.
Identity Self-Denial	An attempt to hide or minimize one's ethnic-racial background. This may occur when group dynamics (e.g. negative stereotypes) force one to deny their ethnic-racial identity.

Table 2

Cross Ethnic Racial Identity Scale

Components	**Definitions**
Assimilation	The conceptualization of identity in nationalistic rather than ethnonationalist terms.
Miseducation	The extent to which individuals endorse the stereotypes about their ethnic-racial group.
Self-Hatred	The extent to which individuals dislike the ethnic-racial group to which they belong.
Anti-Dominant	The extent to which individuals dislike the dominant group in the society.
Ethnocentricity	The extent to which individuals believe that values from the ethnic-racial group they belong to should inform their lives.
Muliculturalist Inclusive	The combination of a strong connection to one's ethnic-racial group and the willingness to engage with other cultural groups in society and value the perspectives these groups bring.
Ethnic-Racial Salience	The extent to which individuals consider race in their daily lives.

Table 4

Inter-correlations Among Predictor Variables

Predictor	1	2	3	4	5
Multiculturalist Inclusive					
Assimilation	-.034				
Psychological Well-being	.094	.178**			
Depression	.133*	.046	-.407**		
Youth Purpose	.287**	-.012	.455**	-.234**	

* indicates $p < .05$. ** indicates $p < .01$

Measures

The Cross Ethnic-Racial Identity Scale–Adult (CERIS-A)

Worrell, F. C., Mendoza-Denton, R., & Wang, A. (2019). Introducing a New Assessment Tool for Measuring Ethnic-Racial Identity: The Cross Ethnic-Racial Identity Scale–Adult (CERIS-A). *Assessment*, *26*(3), 404-418.

1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – neither agree nor disagree; 5 – somewhat agree; 6 – agree; 7 – strongly agree

1. Life in America is good for me.
2. I think of myself primarily as an American, and seldom as a member of an ethnic or racial group.
3. I think many of the stereotypes about my ethnic/racial group are true.
4. I go through periods when I am down on myself because of my ethnic group membership.
5. It is important for multiculturalists to be connected to people from from many different groups, such as Latino/as, Asian-Americans, European Americans, Jews, gays & lesbians, Blacks, multi-ethnic, etc.).
6. I have a strong feeling of hatred and disdain for the majority culture.
7. I am not so much a member of a racial group, as I am an American.
8. I believe that only people who accept a perspective from their ethnic/racial group can truly solve the race problem in America.
9. I believe it is important to have a multicultural perspective which is inclusive of everyone.
10. When I look in the mirror, sometimes I do not feel good about the ethnic/racial group I belong to.
11. If I had to put a label on my identity, it would be “American,” and not a specific ethnic/racial group.
12. When I read the newspaper or a magazine, I always look for articles and stories that deal with race and ethnic issues.
13. When people say things about my group that sound stereotypical I find myself agreeing with them.
14. We cannot truly be free as a people until our daily lives are guided by values and principles grounded in our ethnic/racial heritage.
15. Members of the dominant group should be destroyed.
16. Privately, I sometimes have negative feelings about being a member of my ethnic/racial group.
17. If I had to put myself into categories, first I would say I am an American, and second I am a member of a racial or ethnic group.
18. People should relax about being too politically correct because some stereotypes about our group are true.
19. When I have a chance to decorate a room, I tend to select pictures, posters, or works of art that express strong ethnic-cultural themes.
20. I hate people from the dominant racial/ethnic group.
21. I respect the ideas that other people hold, but I believe that the best way to solve our problems is to think from an ethnic/racial point of view.

22. When I vote in an election, the first thing I think about is the candidate's record on racial and cultural issues.
23. I believe it is important to have both an ethnic identity and a multicultural perspective, because this connects me to other groups (Blacks, Hispanics, Asian-Americans, Whites, Jews, gays & lesbians, American Indians, etc.).
24. During a typical week in my life, I think about ethnic and cultural issues many, many times.
25. We will never be whole until we embrace our ethnic/racial heritage.
26. My negative feelings toward the majority culture are very intense.
27. I sometimes have negative feelings about being a member of my group.
28. As a multiculturalist, it is important for me to be connected with individuals from all cultural backgrounds (gays & lesbians, African Americans, Jews, Native Americans, Asian-Americans, Latinos, etc.).
29. My ethnic/racial group shares characteristics that are reflected in the stereotypes about us.

CERIS – A Subscales

Assimilation (AM) 2, 7, 11, 17
Miseducation (MD) 3, 13, 18, 29
Self-Hatred (SH) 4, 10, 16, 27
Anti-Dominant Group (AD) 6, 15, 20, 26
Ethnocentricity (ET) 8, 14, 21, 25
Multiculturalist Inclusive (MI) 5, 9, 23, 28
Ethnic-Racial Salience (ERS) 12, 19, 22, 24

Not used in scoring 1

The Claremont Purpose Scale

Bronk, K.C., Riches, B.R., & Mangan, S. (2018). Claremont Purpose Scale A Measure that Assesses the Three Dimensions of Purpose among Adolescents.

12 item Version

(alpha=.94)

Meaningfulness (α=.92)

1. How clear is your sense of purpose in your life?

Not at all clear	A little bit clear	Somewhat Clear	Quite Clear	Extremely Clear

2. How well do you understand what gives your life meaning?

Do not understand at all	Understand a little bit	Understand somewhat	Understand quite well	Understand extremely well

3. How confident are you that you have discovered a satisfying purpose for your life?

Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident

4. How clearly do you understand what it is that makes your life feel worthwhile?

Not at all clearly	A little bit clearly	Somewhat clearly	Quite clearly	Extremely clearly

Goal orientation (α =.86)

5. How hard are you working to make your long-term aims a reality?

Not at all hard	Slightly hard	Somewhat hard	Quite hard	Extremely hard

6. How much effort are you putting into making your goals a reality?

Almost no effort	A little bit of effort	Some effort	Quite a bit of effort	A tremendous amount of effort

7. How engaged are you in carrying out the plans that you set for yourself?

Not at all engaged	Slightly engaged	Somewhat engaged	Quite engaged	Extremely engaged

8. What portion of your daily activities move you closer to your long-term aims?

None of my daily activities	A few of my daily activities	Some of my daily activities	Most of my daily activities	All of my daily activities

Beyond-the-self dimension (α =.92)

9. How often do you hope to leave the world better than you found it?

Almost never	Once in a while	Sometimes	Frequently	Almost all the

time

10. How often do you find yourself hoping that you will make a meaningful contribution to the broader world?

Almost never | Once in a while | Sometimes | Frequently | Almost all the time

11. How important is it for you to make the world a better place in some way?

Not at all important | Slightly important | Somewhat important | Quite important | Extremely important

12. How often do you hope that the work that you do positively influences others?

Almost never | Once in a while | Sometimes | Frequently | Almost all the time

The Motivated Strategies for Learning Questionnaire

Pintrich, P. R., & De Groot, E. V. (1990). Motivational and self-regulated learning component of classroom academic performance. *Journal of Educational Psychology*, *82*(1), 33-40.

Self-Regulation Subscale (α =.74)

32. I ask myself questions to make sure I know the material I have been studying.
34. When work is hard I either give up or study only the easy parts. (*R)
40. I work on practice exercises and answer end of chapter questions even when I don't have to.
41. Even when study materials are dull and uninteresting, I keep working until I finish.
43. Before I begin studying I think about the things I will need to learn.
45. I often find that I have been reading for class but don't know what it is all about. (*R)
46. I find that when the teacher is talking I think of other things and don't really listen to what is being said. (*R)
52. When I am reading I stop once in a while and go over what I have read.
55. I work hard to get a good grade even when I don't like a class.

Items marked (*R) are reverse scored.

The Revised Children Anxiety and Depression Scale

Chorpita, B. F., Yim, L., Moffitt, C., Umemoto, L. A., & Francis, S. E. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A revised child anxiety and depression scale. *Behaviour Research and Therapy*, *38*(8), 835-855.

Major Depressive Disorder Subscale (α =.74)

2. I feel sad or empty.
6. Nothing is much fun anymore.
11. I have trouble sleeping.
15. I have problems with my appetite.
19. I have no energy for things.
21. I am tired a lot.
25. I cannot think clearly.
29. I feel worthless.
40. I feel like I don't want to move.
47. I feel restless.

The Mental Health Inventory – Psychological Wellbeing

Veit, C. T., & Ware, J. E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology*, *51*(5), 730-742.

Psychological Wellbeing Subscale (α =.92); General Positive Affect Subscale (α =.92)

1. For the most part, I have been happy, satisfied, or pleased with my personal life.
2. My daily life been full of things that were interesting to me.
3. I feel relaxed and free of tension.
4. I have generally enjoyed things.
5. When I got up in the morning I expect to have an interesting day.
6. During the past month, I have felt calm and peaceful.
7. During the past month, I was able to relax without difficulty.
8. Living has been a wonderful adventure for me.
9. During the past month, I have felt cheerful, light-hearted.
10. I am a happy person.

Maryland Adolescent Development in Context Study

Eccles, J., Wong, C., & Peck, S. (2006). Ethnicity as a social context for the development of African American adolescents. *Journal of School Psychology*, *44*, 407-426.

School Importance Subscale (α =.54 – .64)

1. I have to do well in school if I want to be a success in life.
2. Even if I do well in school, I still won't be able to get a good job when I grow up.
3. Schooling is not so important for kids like me.
4. I learn more useful things from friends and relatives than I learn in school.
5. Getting a good education is the best way to get ahead in life for the kids in my neighborhood.
6. I have so much to do at home that I don't have enough time to do homework.
7. The school teaches me things that my family wants me to learn.
8. I often learn a lot from my homework.