

Spring 2024

Intersectional Cultural Identities Among First-Generation College Students: From a Deficit to Asset Perspective

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**INTERSECTIONAL CULTURAL IDENTITIES AMONG FIRST-GENERATION
COLLEGE STUDENTS: FROM A DEFICIT TO ASSET PERSPECTIVE**

by

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A Dissertation Submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

PSYCHOLOGY

OLD DOMINION UNIVERSITY

May 2024

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ABSTRACT

INTERSECTIONAL CULTURAL IDENTITIES AMONG FIRST-GENERATION COLLEGE STUDENTS: FROM A DEFICIT TO ASSET PERSPECTIVE

Kelsie K. Allison
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First-generation college students (FGCS) comprise of over half of the U.S. higher education student population, yet have considerably lower academic attainment rates compared to non-FGCS. Research has explored challenges that may attribute to these academic disparities, however, there remains a critical gap in identifying FGCS assets that may ameliorate these disparities. Addressing this gap, the current study examined the role of cultural identity, which has shown to have a positive impact on college students' academic achievement and well-being, as a key asset for FGCS. Specifically, the current study examined the unique effects of various cultural identity domains (i.e., ethnic, U.S., and FGCS identity) and identified unique configurations of cultural identity among 459 current FGCS (*Mage* = 24.4 years, *SD* = 8.2) enrolled at a large, racially diverse, urban university who identified as Black (47.1%) or White (52.9%). Overall, results yielded that cultural identity dimensions were positively associated with psychosocial adjustment, but were not significantly associated with academic achievement. In addition, utilizing multigroup path analyses, these findings were found to be equivalent across ethnic-racial groups. Utilizing latent profile analyses (LPA), three profiles for the full sample (i.e., Diffused, Negative Moratorium, and Developed), three profiles for the Black subsample (i.e., Diffused, Diffused Negative, and Developed), and four profiles for the White subsample (i.e., Diffused, Negative Moratorium, Foreclosed, and Undifferentiated) were identified. Further, individuals in the profiles with the highest levels of cultural identity (i.e., Developed and

Foreclosed) reported the highest levels of psychosocial adjustment, highlighting the importance of a positively developed cultural identity. These findings support the proposed integrative intersectional cultural identity capital framework, which posits that the intersectional identities can serve as cultural wealth assets to FGCS.

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This dissertation is dedicated to my fellow trailblazers. Being the first in your family to not only attend college, but graduate school, can be an overwhelming and terrifying experience.

However, it is also a great honor and privilege that I have never taken for granted.

ACKNOWLEDGEMENTS

They say the path to success is lonely, but I could not have successfully completed this dissertation without my amazing community of support. I was lucky enough to not have the just one great mentor, but two. Dr. Alan Meca, I have been inspired ever since you asked me “Who are you?” on interview day almost five years ago to fulfill my answer of “an advocate for those without a voice.” Dr. Catherine Glenn, you have expanded my research interests into another important field in which I am grateful to be a part of. I cannot thank the two of you enough for challenging me to be better, your endless encouragement, and the amazing opportunities you’ve provided me over the years. I also want to acknowledge my committee members, Drs. James Paulson and Tony Perez, for their expertise, feedback, and enthusiasm in the topic that has helped blossom this project into fruition. Lastly, I would like to thank my family and friends. To my friends in and outside of my cohort, your companionship has made the long days and nights easier to manage. To my three younger siblings, for motivating me to show that you can do whatever you put your mind to, despite where you come from. To my mama, for never failing to remind me that I am capable and worthy. Thank you for always being there to talk things through or just listening. To my husband, you are the yin to my yang. Thank you for always pushing me to work hard, but never letting me forget to stay positive and enjoy the beauties of life.

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CHAPTER I

INTRODUCTION

Within the United States (U.S.), the percentage of first-generation college students (FGCS) in U.S. post-secondary institutions has consistently risen in the past two decades, reaching approximately 56% of the population (RTI International, 2019a). Despite their growing presence, FGCS experience lower academic persistence and attainment rates than their counterparts, continuing generation college students (CGCS; Cataldi et al., 2018). While there are many definitions of FGCS provided in the literature, the proposed study will utilize the Department of Education's definition of FGCS (Higher Education Act of 1965), which includes students whose parent(s)/legal guardian(s) have not completed a bachelor's degree. In attempts to understand the underlying mechanisms of these academic disparities, scholars have largely turned to a deficit and stress-based view that has largely focused on specific stressors unique to FGCS, such as discrimination (Ellis et al., 2019), family achievement guilt (Covarrubias et al., 2020), and differences in cultural background (Stephens et al., 2012). While it is important to understand the challenges FGCS experience, in order to empower FGCS, research must identify and highlight their assets and strengths. To this end, researchers have made a call for research that supports FGCS from an asset-based perspective (e.g., personal strengths; Stebleton & Jehangir, 2020). One of the factors that has been identified to have a positive impact on college students as a whole is identity development (Meca et al., 2023a).

Given that FGCS have intersectional cultural, and typically marginalized identities, the application of the community cultural wealth model may be useful in highlighting this population's assets. The community cultural wealth model argues that instead of viewing marginalized groups from a deficit perspective, we should acknowledge their assets of cultural

capital (Yosso, 2005). Coupled with the community cultural wealth model, it is important that research acknowledges FGCS cultural capital from an intersectional identity lens. The theory of intersectionality posits that individuals possess multiple social identities (e.g., class, ethnicity) that overlap and intertwine, as well as highlight power differences across influential levels (e.g., cultural, institutional; Crenshaw, 1989; Rodriguez, 2016). As such the proposed study offers an integrative framework that combines the community cultural wealth model and intersectionality to better understand and highlight FGCS' cultural capital assets. The current study sought to 1) examine the unique effects of cultural identity (i.e., FGCS, ethnic-racial, and U.S.) dimensions (i.e., exploration, resolution, and affirmation) on academic achievement and positive psychosocial adjustment, 2) identify unique identity configurations across FGCS, ethnic-racial, and U.S. identity dimensions, 3) examine the identified unique cultural identity profiles' associations with academic achievement and psychosocial adjustment, and 4) explore whether there are ethnic-racial differences across Black and White FGCS for aims 1-3.

MOVING FROM A DEFICIT-BASED TO AN ASSET-BASED PERSPECTIVE

Overall, research on FGCS has largely followed a deficit perspective, or one that focuses on what contributes to the lack of success for FGCS. In order to empower FGCS to see their strengths, it is important that researchers also aim to understand the assets that this population has. The specific stressors faced by FGCS, such as discrimination (Ellis et al., 2019), family achievement guilt (Covarrubias et al., 2020), and cultural mismatch (Stephens et al., 2012), not only emphasize the unique positionality of FGCS, but signify the need for asset-based research. Below, the community cultural wealth model, identity development theory, and intersectionality as asset-based frameworks relevant for the experiences of FGCS will be reviewed.

Community Cultural Wealth Model

Bourdieu and Passeron (1977) introduced the concept of cultural wealth as a critique to societal power and social class differences that influenced academic disparities. Bourdieu's (2011) definition of cultural capital refers to embodied (e.g., language, mannerisms), objective (e.g., art, books), and institutionalized (e.g., education, qualifications) forms of assets possessed by individuals in higher positions of social class. However, this conceptualization of cultural capital has been utilized to further marginalize students of color in comparison to White, middle-class students in terms of educational outcomes (Yosso, 2005). Utilizing a critical race theory lens, Yosso (2005) proposed a model of community cultural wealth (CCW) to shift from a deficit-based to an asset-based perspective of ethnic-racial minoritized students.

The community cultural wealth model posits that ethnic-racial minoritized students develop and possess cultural wealth in various forms including aspirational, navigational, social, linguistic, familial, and resistant capital. It is important to note, Yosso (2005) explained that the six forms of cultural capital are not completely distinct nor separate, but synchronized processes that influence each other's development in culminating community cultural wealth. The first form, aspirational capital, is the resilience displayed in maintaining future aspirations despite experiencing adversity. Next, linguistic capital embodies the skills resulting from being exposed to multiple forms of cultural communication (e.g., multilingualism, storytelling, vocabulary). Third, familial capital can be understood as cultural knowledge gained from family, coupled with the importance of interdependence. The fourth form of capital or social capital, refers to social support drawn from community, peers, and others to persevere. Next, navigational capital refers to the ways in which ethnic-racial minoritized students navigate through higher education institutions that were constructed with majority populations in mind, rather than incorporating

diversity among student populations (Yosso, 2005). Finally, resistant capital includes the assets gained by actively challenging inequality. Due to their marginalized status, yet rich cultural backgrounds, researchers have posited that the CCW model can also be applied to FGCS to shift the perspective from deficits to assets (Hands, 2020; Garriott, 2020).

There have been a few applications of the CCW for FGCS from a theoretical standpoint. For instance, in order to ease the virtual transition for FGCS during the COVID-19 pandemic, Hands (2020) conducted a literature review to determine which assets FGCS have reported that align with the six forms of cultural capital. Hands (2020) found that the experiences of FGCS aligned with four of the six forms including aspirational, social, navigational, and linguistic capital (Yosso, 2005) through optimism, academic resilience, goal orientation, civic-mindedness, and proactivity. Additionally, Garriott (2020) proposed a critical cultural wealth model (CCWM) of academic and career development for first-generation and economically marginalized (FGEM) college students. The CCWM is composed of four dimensions including structural and institutional conditions, social-emotional crossroads, career-authorship, and cultural wealth, with the purpose of further understanding FGEM students' identities and experiences. The fourth dimension, cultural wealth, utilizes Yosso's (2005) CCW model as a basis and posits that FGEM students possess cultural capital through resilience, critical consciousness, and family and community capital. In a sample of 424 FGCS, Duffy and colleagues (2020) tested the CCWM and found the social-emotional dimension, measured by sense of belonging, and the career-authorship dimensions, measured by work volition, had significant positive associations with career choice satisfaction and life satisfaction. However, the cultural wealth dimension was not empirically examined in the study and researchers suggested that future research should explore how this dimension can serve as an asset to FGCS (Duffy et al., 2020). To this end, the current

study offers an integrative theoretical framework to examine the combination of FGCS, ethnic-racial, and U.S. identity process and content dimensions as a cultural capital asset among FGCS.

Before delving into the proposed framework, to demonstrate the reasoning and foundation for examining intersectional cultural identities as cultural capital, the following sections will review identity theory broadly, as well as cultural identity domains including FGCS identity, ethnic-racial identity, and U.S. identity. Moreover, FGCS with other intersecting marginalized identities are challenging not just one, but multiple levels of inequality. With this in mind, the next section will conclude with intersectionality theory.

IDENTITY DEVELOPMENT THEORETICAL FRAMEWORKS

Identity development, or one's journey to the answer the question "Who am I?" is an important life-long developmental task (Meca et al., 2023a; Vignoles et al., 2011). At the same time, identity development can be particularly pivotal during the college years of an individual's life given that it is a time in which college students are faced with exposure to a multitude of new experiences, people, and more (Meca et al., 2021b). There is a wealth of research that indicates that positive identity development is associated with better overall psychosocial adjustment (for a review, see Meca et al., 2023a). Further, psychosocial adjustment has been linked to better academic performance among college students (for a review, see Tindle et al., 2022). Thus, positive identity development could be an essential factor in understanding strengths of FGCS. As made evident in the previous sections, cultural background is an important element to consider when discussing FGCS. Cultural identity development can be defined as one's identification with their cultural group memberships (Meca et al., 2023b). Therefore, the following section will provide an overview of cultural identity theory related to FGCS status,

ethnic-racial, and U.S. identity, as well as the relationship between cultural identity development and academic and psychosocial outcomes among college students.

As a whole, cultural identity development theories have largely followed one (or a fusion of both) of two perspectives, including the developmental process perspective and the content perspective. Identity processes encompass the ways in which an individual forms their identity, while identity content illustrates an individual's meaning or importance of identity (Vignoles et al., 2011). Identity development research centered on process has largely drawn from Erikson's (1950, 1968) theoretical framework of identity, while research focused on the content of identity development has largely drawn from social identity theory (SIT; Tajfel, 1981; Tajfel & Turner, 1979).

Process Vs. Content Identity Theory Models

Erikson's (1968) model of psychosocial development proposes that an individual's identity is formed through crisis that must be resolved in order to form a sense of self, beginning in adolescence, and continuing into early adulthood. According to Erikson, a coherent, healthy sense of self, or *identity synthesis*, emerges from successfully resolving one's crisis, whereas a disoriented sense of self, or *identity confusion*, emerges when one is unable to resolve their crisis. Although Erikson's work was essential to the conceptualization of identity development, his conception was theoretical and empirically untestable. One of the most prominent identity development models that has emerged from Erikson's work is Marcia's (1966) identity status paradigm, which posits that identity is formed through two processes including identity *exploration* (i.e., examining different identity alternatives) and *commitment* (i.e., selection and devotion to one or more alternatives). Further, from the status paradigm perspective, a coherent

sense of self is established once an individual has explored and enacted commitment to their identity (Côté & Levine, 2002).

In contrast to process-based identity theories, content-based identity perspectives focus on the quality and meaning of identity, and have roots in social identity theory, which focuses on individuals' identification with social groups (SIT; Tajfel, 1981; Tajfel & Turner, 1979). As such, SIT posits that social identity is the result of one's knowledge of and identification with a social group, coupled with the emotional significance an individual forms of their group membership. Sellers and colleagues' (1998) Multidimensional Model of Racial Identity (MMRI) is fundamental framework in the ethnic-racial identity (ERI) literature, as well as an exemplar of content-based identity theory. The MMRI was developed to provide a framework for understanding the importance and meaning African Americans ascribe to their racial group membership. As such, the MMRI is comprised of four dimensions, two dimensions that depict the importance of racial identity including *salience* (i.e., relevance of racial identity dependent upon context) and *centrality* (i.e., importance of racial identity to sense of self), and two dimensions that depict the meaning attributed to racial identity including *regard* (i.e., positive or negative perception of racial identity) and *ideology* (i.e., belief of how members of racial group should live). Although the MMRI was developed to understand African American's racial identity, salience, centrality, and regard have been applied to understand the importance and meaning of several other cultural identity domains, including FGCS (Allison et al., 2023b), ethnic-racial (Yip et al., 2022), and U.S. (Meca et al., 2021a) identity discussed in the following sections.

Cultural Identity Domains

Although definitions vary widely in the literature, the current study defines cultural identity development as a coalescence of individuals' affect, significance, and understanding of their cultural group membership, and the underlying mechanisms individuals employ to form their identification with that cultural group. Further, cultural identity can be viewed as a fusion of content- and process-based identity development perspectives, focusing on both the underlying developmental processes and the significance and meaning of one's cultural identity (Meca et al., 2023b). Cultural identity development is particularly important for immigrant and ethnic-racial minoritized youth who are more likely to endorse multiple cultural backgrounds and experience systemic racism, oppression, and xenophobia (Garcia Coll et al., 1996; Harrell, 2000).

Immigrant-origin and ethnic-racial minoritized college students make up a large portion of the national population of college students (28% and 44%, respectively; Batalova & Feldblum, 2020; Hanson, 2022). To date, there are no statistics on the number of immigrant-origin FGCS.

However, the majority of the U.S. FGCS population is comprised of ethnic-racial minoritized college students (54%; RTI International, 2019a). It is noteworthy to mention, prior research has predominantly defined cultural identity in terms of ethnic-racial and U.S. identity (for a review, see Meca et al., 2023b). However, this operationalization is limiting when studying FGCS who have additional intersectional cultural identity domains. Therefore, the current study seeks to advance existing literature on FGCS by expanding the concept of cultural identity to not only include ethnic-racial and U.S. identity domains, but also the additional domain of FGCS identity.

Conceptualizing FGCS Identity

A relatively new domain of cultural identity is FGCS identity, or the extent to which individuals identify with being a FGCS (Allison et al., 2023b). While research on FGCS identity

is limited, given the impact of positive identity development on marginalized populations, it is imperative that this identity domain is examined. Orbe (2004) conducted a qualitative study with 79 FGCS to assess their experiences regarding their status of being a FGCS, in which thematic analyses from interviews produced three major themes. One of the findings revealed that FGCS felt a lack of community among other FGCS, even though these connections were very important for some. Another theme among FGCS was centrality of FG status, such that the extent to which being a FGCS was a central part of their identities varied depending on contextual factors such as location and institution type. Finally, FGCS identity saliency (i.e., awareness of identity) differed depending on other intersectional, cultural identities (e.g., race/ethnicity, SES). Unsurprisingly, FGCS with intersecting marginalized identities such as being part of a minoritized ethnic-racial group, low SES, and/or female had higher salience of their status, whereas individuals from privileged majority groups (i.e., male, White, high SES) had lower salience likely due to the lack of marginalization of their identities (Orbe, 2004). These findings further support the importance of intersectional identities, specifically for cultural identity domains. It is also important to note that differences in FGCS identity were associated with varying levels of academic motivation and stress.

A great deal of the literature surrounding FGCS identity has been revolved around qualitative research. While qualitative research is important to further in-depth understanding of constructs, it is not intended to allow for generalization or predictions (Carminati, 2018). In order to further our understanding of FGCS identity development and its relationship with academic and psychosocial outcomes, it is important that researchers are able to quantifiably assess these identity dimensions. In a recent study, Allison et al. (2023b) adapted a multidimensional measure of FGCS identity (i.e., First-Generation College Student Identity Scale; FGCSIS) from ERI

measurement (Sellers et al., 1997; Umaña-Taylor et al., 2004), with four dimensions including FGCS identity exploration (i.e., the way in which individuals form the meaning of their FGCS group membership), resolution (i.e., individuals' meaning of FGCS group membership), affirmation (i.e., positive feelings toward FGCS group membership), and centrality (i.e., importance of FGCS group membership to sense of self). The sample provided good internal consistency reliability as well as full factorial measurement invariance across Black and White FGCS on the FGCSIS. In examining latent mean differences between Black and White FGCS, Allison and colleagues (2023b) found that Black FGCS reported significantly higher levels of FGCS identity exploration and centrality. Moreover, FGCS resolution and centrality were positively associated with self-esteem, psychological well-being, and satisfaction with life, and FGCS affirmation was positively associated with satisfaction with life and psychological well-being, even after controlling for ethnic-racial identity. There is also evidence that FGCS identity has associations with other cultural identity domains, that have implications for academic outcomes. External validity was established for the FGCSIS by examining associations with ethnic-racial identity dimensions, as well as with interdependent and independent motives for attending college (Allison et al., 2023b). Findings revealed that each similar FGCS and ethnic-racial identity dimensions (e.g., FGCSIS exploration with ERI exploration) had significant positive correlations, which supports previous qualitative work that highlights the interconnection between different aspects of ones' cultural identity (Orbe, 2004, 2008). In sum, these findings indicate that the development of a positive FGCS identity is associated with better overall well-being among FGCS and have highlighted the need for an intersectional cultural identity approach.

Conceptualizing Ethnic-racial Identity (ERI)

Another domain of cultural identity is ethnic-racial identity (ERI), a multidimensional construct that represents individuals' beliefs, feelings, and meaning of their ethnic-racial group as well as their membership in that group, and the way in which individuals form those beliefs, feelings, and meanings (Meca et al., 2023b). It should be noted that some researchers have argued that ethnicity and race provide important differences and as such should be studied as separate constructs, while others have highlighted that the two constructs have complex intertwinement that have implications for how individuals experience their identities (Atkin et al., 2022). For instance, research indicates that ethnic identity development can be provoked by racial processes (Pahl & Way, 2006) and racial identities are strongly tied to ethnic traditions (Cokley, 2005). To this end, the Ethnic and Racial Identity in the 21st Century Study Group have suggested that utilizing the combined construct is useful in accurately depicting individuals' lived experiences (Umaña-Taylor et al., 2014). As such, the proposed study will adhere to the latter approach advocated by current ERI literature, which combines the constructs (i.e., ethnic-racial). Drawing from Erikson's (1950) and Marcia's (1966) process-based frameworks, two of the key processes utilized in ERI research are *exploration* and *commitment*. Exploration includes the mechanisms individuals employ to understand what their ethnic-racial group membership means to them, whereas commitment, also known as resolution, embodies the meaning individuals ascribe to their ethnic-racial group membership (Phinney, 1989; Umaña-Taylor et al., 2004). Coupled with the process-perspective, ERI research also draws from social identity theory (SIT; Tajfel, 1981; Tajfel & Turner, 1979) and the multidimensional model of racial identity (MMRI; Sellers et al., 1998), with two key content dimensions including *affirmation* or *private regard* and *centrality*. Affirmation, or private regard, is the negative or positive feelings individuals have

toward their ethnic-racial group and group membership (Umaña-Taylor et al., 2004). On the other hand, centrality represents the importance individuals place on their ethnic-racial group membership in relation to their sense of self (Sellers et al., 1998).

In contrast to the relatively new research on FGCS identity development, research regarding ERI is well-established. Thus, there is a wealth of literature that has examined ERI and the relationship between various outcomes among college students. Overall, research has indicated that positive ERI development is associated with better psychosocial outcomes across ethnic-racial groups (for reviews, see Meca et al., 2023b; Rivas-Drake et al., 2014). Moreover, several studies have indicated that a positive ERI can serve as a protective factor against the negative effects of discrimination among ethnic-racial minoritized groups including Asian-American, Black/African American, and Hispanic/Latinx college students (Brittian et al., 2015; Chen et al., 2014; Desalu et al., 2021; Forrest-Bank & Cuellar, 2018; Marks et al., 2021; Su et al., 2021; Yip et al., 2019). Further, research indicates that a positive ERI is associated with higher academic achievement, motivation, and self-efficacy, among youth (Forrest-Bank & Cuellar, 2018; Isik et al., 2018; Miller-Cotto & Byrnes, 2016). Although there is a substantive amount of research that indicates ERI's positive association with college student outcomes, it is worth noting that some studies have revealed null findings (Arbona & Jimenez, 2014; Braby et al., 2022; Desalu et al., 2021), and even negative effects (Desalu et al., 2021; Meca et al., 2022; Schwartz et al., 2012; Su et al., 2021).

Despite the substantial amount of ERI literature among college students, research regarding ERI among FGCS is still relatively sparse. In a qualitative study, Gutierrez-Serrano et al. (2022) analyzed 52 Latina FGCS written responses to questions that asked about participants' experiences as a FGCS and their future aspirations. Findings revealed that FGCS reported being

motivated by their strong ERIs to persist and succeed in higher education. In a cross-sectional quantitative study, Takimoto et al. (2021) found that ERI exploration positively predicted academic self-efficacy, whereas ERI belonging negatively predicted depressive symptoms among 152 Latinx FGCS. In another cross-sectional quantitative study, Moore III (2011) found that a total score of ERI was the best predictor for mastery achievement goals among 87 African American and Latinx/Hispanic FGCS. In sum, after a thorough review of the literature, the three studies discussed were the only studies found to have examined ERI among FGCS. Although these studies represent an important first step, the exclusive and separate focus on African American and Latinx/Hispanic FGCS is problematic given that the FGCS in the U.S. are a diverse population, comprised of several different ethnic-racial groups (RTI International, 2019a). In addition, several studies have explored intersectional cultural identities among FGCS that will be reviewed in the following section.

Conceptualizing U.S. Identity (USI)

Similar to ERI, U.S. identity (USI) is another cultural identity domain that represents a multidimensional construct that represents individuals' beliefs, feelings, and meaning of their identification with the United States as well as their membership as an American, and the way in which individuals form those beliefs, feelings, and meanings (Meca et al., 2020). U.S. identity is an important cultural identity domain to consider when studying FGCS for several reasons. First, research has indicated that a positive USI is linked with positive psychosocial outcomes among college students (Meca et al., 2023c, Rodil et al., 2022), as well as U.S. veterans (Meca et al., 2021a), and immigrant populations (Meca et al., 2020). Second, prior research has shown that USI and ERI are moderately associated with one another cross-sectionally (Meca et al., 2020) and longitudinally (Meca et al., 2018), highlighting the complex interaction between these

identity domains. Third, prior research indicates that FGCS experience a cultural mismatch due to the conflict between their interdependent-working-class backgrounds and the independent-middle-class norms that have been deep-rooted in U.S. higher education (Chang et al., 2020). In other words, these ties between social class and cultural norms are specific to U.S. culture. As a result, the way in which FGCS identify with the U.S. may play a role in their academic achievement and overall well-being.

Drawing from ERI literature (Phinney, 1989; Umaña-Taylor et al., 2004), USI has also been studied as a fusion of process- and content-based approaches to identity development. On the other hand, like FGCS identity, research on USI among college students is still relatively new in comparison to ERI research. Further, it should be noted that USI has only very recently begun to be measured from a multidimensional perspective with the United States Identity Scale (USIS; Meca et al., 2020), which assesses USI exploration, resolution, and affirmation, adapted from the Ethnic Identity Scale (EIS; Umaña-Taylor et al., 2004). Similar to ERI literature, prior research has demonstrated that a positive USI is associated with better academic motivation and psychosocial outcomes among college students for studies assessing USI from unidimensional (Schwartz et al., 2012; Tikhohov et al., 2019), multidimensional (Meca et al., 2020; Rodil et al., 2022), and person-centered (Gonzales-Backen et al., 2015; Meca et al., 2023c) approaches. However, it should be noted that Meca et al. (2020) found that USI exploration was negatively associated with psychological well-being and self-esteem among 416 Latinx college students. Also similar to ERI literature, only one study was identified that examined USI among FGCS. In a cross-sectional quantitative study, Garcia Peraza (2017) found that U.S. identity did not predict career decision self-efficacy among 137 Latinx FGCS. As will be reviewed in the following section, some studies have examined intersectional cultural identities among FGCS. However, to

date, none have examined the intersection of USI with other cultural identities. To this point, there are several ways researchers have approached the study of cultural identity and their intersections with one another. As such, the following section will examine person- vs. variable-centered approaches to cultural identity.

Person- Vs. Variable- Centered Approaches

Within the literature on cultural identity and marginalized populations, there has been a recent call for person-centered research vs. variable-centered research (Buchanan et al., 2021; Meca et al., 2023c). The purpose of variable-centered research is to describe the way one construct specifically relates another construct, whereas person-centered research aims to identify subpopulations within a larger population based on common characteristics (Howard & Hoffman, 2018). Variable-centered approaches are predominant within social science research and are important in examining how specific identity dimensions may relate to outcomes for individuals. However, the variable-centered approach assumes that individuals within a given population are similar in terms of the variables in question, and thus is insufficient in capturing heterogeneity among groups. In other words, for populations of interest such as FGCS, variable-centered research alone is insufficient to further understanding on the complexity of intersecting cultural identities. In contrast, person-centered approaches allow researchers to identify differences within diverse groups. This is particularly important for marginalized populations such as ethnic-racial minoritized and first-generation college students such that research has historically stereotyped and made assumptions of homogeneity (Buchanan et al., 2021).

Prior research has utilized a person-centered approach when examining cultural identities such as ERI and USI. For instance, Wantchekon and Umaña-Taylor (2021) conducted latent profile analysis (LPA) for ERI process (i.e., exploration and resolution) and content (i.e.,

centrality and private and public regard) dimensions in a sample of Black and Latinx youth. Three profiles were extracted representing: 1) high levels of process and content dimensions, 2) low levels of process and average levels of content, and 3) low levels of process and content dimensions. Additionally, no significant differences in profile membership were found across ethnic-racial groups (Wantchekon and Umaña-Taylor, 2021). Extending on Wantchekon and Umaña-Taylor's (2021) work, Meca et al. (2023c) conducted three separate LPAs with one representing ERI only, another with USI only, and a third with ERI and USI in conjunction among a sample of Hispanic/Latinx college students. Similarly, findings revealed 3-profile solutions among all three LPAs with profiles that reflected high levels of process and content dimensions, low levels of process and average levels of content, and low levels of process and content dimensions. Finally, Cheon et al. (2020) conducted LPA for ERI process (i.e., exploration and commitment) dimensions, unidimensional USI (i.e., total score), and subjective social status (i.e., SSS; rating their position on a social ladder) in a sample of Asian, Black, and Latinx youth. Similar to Wantchekon and Umaña-Taylor (2021) and Meca et al. (2023c), findings revealed a 3-profile solution representing: 1) low ERI and USI, 2) moderate ERI and moderate USI, and 3) high ERI and USI (all three profiles reflected similar moderate levels of SSS). Moreover, findings revealed that there were significant ethnic-racial group differences across profiles.

Across the aforementioned studies, across all identity domains, the identity profiles with the highest levels of identity were associated with the highest levels of academic, psychosocial, and psychological adjustment. These findings provide evidence that applying a person-centered approach to FGCS cultural identities could highlight how their intersectional identities serve as an asset. While an increase in person-centered research is recommended, it is also important to

note that prior research has discovered important findings through integrating variable- and person-centered approaches (Crocetti & Meeus, 2015). Therefore, the current study sought to integrate the two approaches in order to comprehensively examine FGCS intersectional cultural identities. While these studies provide evidence that there are similar patterns of cultural identity development across youth, and that profiles with high levels of cultural identity are associated with better outcomes, there are several limitations. To begin with, Wantchekon and Umaña-Taylor (2021) focused exclusively on ERI, ignoring other domains of cultural identity. Whereas Meca et al. (2023c) expanded to include USI, their study was focused exclusively on Hispanic/Latinx youth, limiting its generalizability. Cheon et al. (2020) did however examine multiple cultural identity domains and examined ethnic-racial differences in profile membership. However, Wantchekon and Umaña-Taylor (2021) and Cheon and colleagues (2020) only included Black and Latinx youth and Asian, Black and Latinx youth, respectively. Finally, none of the three previously discussed studies included FGCS or examined FGCS identity.

THE IMPORTANCE OF INTERSECTIONALITY

An element consistently highlighted within the broader identity literature is the idea of intersectionality, which posits that individuals possess multiple social identities (e.g., class, ethnicity) that overlap and intertwine, as well as highlight power differences across influential levels (e.g., cultural, institutional; Rodriguez, 2016). In order to take a more holistic view of FGCS cultural identity, it is essential to incorporate intersectionality. In other words, it can be harmful to neglect diversity college among students because it ignores possible assets that can be utilized to increase their well-being and success (Sosa et al., 2019). The term ‘intersectionality’ was introduced by Black feminist and legal scholar, Kimberle Crenshaw, in the 1980’s to call attention to the challenges faced from intersecting marginalized identities. Thus, intersectionality

was formed and has been utilized in research to examine how individuals may simultaneously experience marginalization from certain aspects of their identities as well as privilege from other existing identities they may have (e.g., middle-class Black individuals, White women; Cole, 2009). The roots of intersectionality theory are in Black feminism and critical race theory (Cole, 2009), however, this construct has been extensively expanded and applied to many other target research populations such as people with disabilities (Frederick & Shifrer, 2019), gender and sexual minoritized individuals (Mena & Bolte, 2019), and first-generation college students (Gray et al., 2018), to name a few. As such, the following sections will review prior research applying intersectionality to FGCS and their cultural identities.

Intersectionality Theory Applied to FGCS

Literature surrounding the intersectional cultural identities of FGCS has been increasingly expanded within the past several years. While no prior research has examined the intersection of FGCS, ethnic-racial, and U.S. identity, research has explored the intersection of other combinations of identity for FGCS and broader samples including FGCS. For instance, Worthen et al. (2021) examined the impact of intersecting identities such as gender, ethnicity, race, FGCS status, and subjective SES on depression and suicidal ideation in a sample of 338 college students (39% CGCS, 61% FGCS). Findings revealed that FGCS reported significantly higher depression than non-FGCS. However, when accounting for intersectional identities, individuals who had multiple marginalized identities (i.e., Hispanic/Latinx, FGCS, females) reported significantly higher rates of depression than individuals who had multiple privileged identities (i.e., non-Hispanic/Latinx, CGCS, males; Worthen et al., 2021). It is important to note that gender, ethnicity, race, and FGCS status were assessed by yes or no questions, rather than from a dimensional approach such as identity affirmation, exploration, and resolution.

Similar to Worthen et al.'s (2021) focus on how intersectional identities further marginalized students, Garriott et al. (2021) examined the association between intersectional identities (i.e., sociorace, FGCS, and SES), institutional classism, and social-emotional outcomes related to higher education among 742 college students (68% CGCS, 32% FGCS). Moreover, sociorace was a categorical variable in which participants were coded as White students or students of color, FGCS identity was assessed by asking about parental education, and SES was examined by a subjective sense of social status. Findings revealed that the interaction of FGCS status and SES significantly moderated the relationship between classism and campus cultural fit among all FGCS, such that FGCS who reported higher SES reported lower campus cultural fit with high levels of classism. Further, the interaction of FGCS status and sociorace significantly moderated the relationship between classism and academic capital among FGCS of color, such that FGCS of color who reported high levels of classism had lower academic capital. Finally, the interaction of FGCS status and sociorace significantly moderated the relationship between classism and school-family integration among all FGCS, such that FGCS who reported high levels of classism experienced lower school-family integration (Garriott et al., 2021). However, this effect was the strongest among FGCS of color. Overall, these studies viewed FGCS from a deficit lens rather than what assets may increase their well-being.

In contrast to a purely categorical perspective, some researchers have examined FGCS identities from a developmental, dimensional approach to intersectionality. For instance, Castillo-Lavergne & Destin (2019) examined how the intersection of ERI resolution and uncertainty of SES status were associated with positive psychosocial outcomes among a sample of 98 working-class Latinx college women, in which 75% of the sample were FGCS. However, when controlling for FGCS status, nativity status, and year in college, the association between

the interaction of ERI resolution and SES uncertainty and psychosocial outcomes were stronger such that individuals with higher ERI resolution and lower SES uncertainty reported the highest self-esteem and satisfaction with life. These findings provide further evidence that the intersection of positive cultural identities can serve as an asset to college students. However, due to the sample being limited to Latinx women and FGCS status being entered as a covariate, it cannot be specifically applied to the broader FGCS population.

Rather than focus on just negative or positive aspects of FGCS intersectional identities, some studies have combined the two perspectives. For example, Gray et al. (2018) conducted semi-structured interviews with 31 FGCS from middle- and upper-class, predominantly White, college campuses to examine their experiences of class, race, or intersectional microaggressions, and how they cope with or counteract those negative threats to their identity. Findings revealed that across ethnic-racial groups, FGCS employed the intrapersonal strategy of mining core identity strength, in which they drew upon a positive sense of self to exhibit resilience and willpower. On the other hand, when it came to interpersonal experiences, Gray et al. (2018) found that many of the participants experienced identity collapse, or when an individual's assumptions about someone's identity facets that are not necessarily visible (i.e., social class) are made on the basis of their assumptions about facets of an identity that are visible (i.e., race). As such, White participants reported employing the method of dodging the issue, meaning that they took measures to outwardly look like they were of a higher social class with things such as clothing so that others would not know they had a lower social status. In contrast to White FGCS, ethnic-racial minoritized FGCS reported utilizing the method of code switching, meaning that modified the way that they spoke or behaved depending on their environment that may include people of different races or social classes. It is important to note that the difference

between these two strategies is that dodging the issue was employed by White FGCS to maintain others' perceptions that they were of higher social class, whereas ethnic-racial minoritized FGCS engaged in code switching to achieve assumptions from others that they were of high social class (Gray et al., 2018). These findings provide evidence that cultural identity does not only influence differences in negative experiences for FGCS but is also utilized as an asset in diverse ways to display persistence and resilience depending on intersectional identities.

Similarly, Havlik et al. (2020) conducted five focus groups with 18 FGCS from a predominately White institution (PWI) to examine the strengths and struggles associated with being a FGCS and other intersectional identities. Findings revealed that FGCS reported experiencing a sense of otherness surrounding FGCS, SES, and ethnic-racial identities that produced negative feelings of marginalization. On the other hand, when the participants were questioned about the way that they persevere through their adversity, there were four common themes among FGCS including the greater good, strength of character, strength of identity, and relational. The greater good theme was largely focused on FGCS motivation to help their families, whereas relational was representative of additional support systems that FGCS developed with others. In terms of assets related to identity, FGCS reported utilizing strength of character, or personal traits that influenced their persistence and resilience. Moreover, FGCS reported how strength of identity served as an asset in college persistence, such that many described how their pride in their intersectional cultural identities (i.e., ethnicity, race, FGCS) motivated them. Although Havlik and colleagues' (2020) study suggests that intersectional cultural identities are beneficial in alleviating the negative effects of cultural stressors and promoting positive adjustment, this does not provide a framework for how to understand or

empirically test these relationships. Thus, the next section will outline an integrative framework to examine intersectional cultural identities as cultural wealth capital (Yosso, 2005).

Integrative Framework

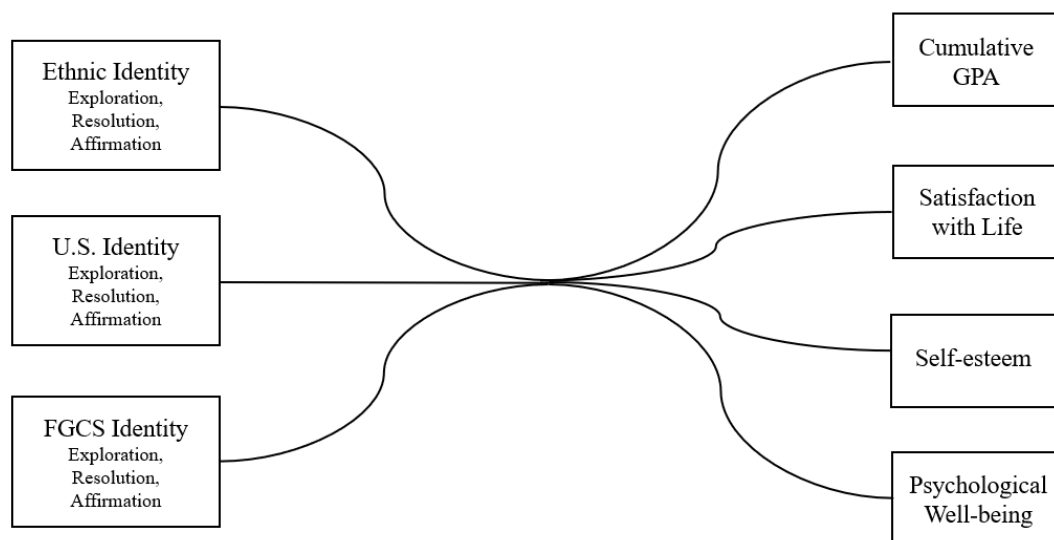
Although research on FGCS assets is steadily growing, there are still limitations and gaps to be filled in the current literature. Several studies have utilized the community cultural wealth model or intersectionality theory as theoretical frameworks for FGCS research. However, to my knowledge, no studies have combined the two frameworks. By combining these frameworks, the experiences of FGCS can be captured more comprehensively. It is also important to note, many of these studies use a deficit lens in applying these frameworks to FGCS, rather than trying to discover possible strengths. While it is important to understand the challenges faced by FGCS, it is equally, or arguably more important, to explore and understand the assets or strengths of this population in order to empower them and highlight their resilience despite their challenges. Given that majority of the unique challenges FGCS experience are highly associated with cultural identity, it would be beneficial to examine the relationships among FGCS' cultural identity, cultural stressors, academic outcomes, and psychosocial adjustment. To this end, it is also important to note that cultural identity is multidimensional with multiple domains. While some research has applied intersectionality theory to FGCS, none to date have examined the intersection of FGCS, ethnic-racial, and U.S. identity development, and their potential to serve as cultural wealth for FGCS. By not examining these identity domains together, we have a limited understanding of their unique impact on academic and psychosocial outcomes.

In order to address these gaps in the literature, the current study offers an integrative framework that combines the community cultural wealth model and intersectionality to examine the combination of FGCS, ethnic-racial, and U.S. identity process and content dimensions as a

cultural wealth asset among FGCS (see Figure 1). Prior research has provided evidence that each of the cultural identity domains in the proposed framework have direct effects on academic and psychosocial outcomes (Allison et al., 2023b; Meca et al., 2023b), intersectional cultural identities capital can also serve as a direct predictor for positive academic and psychosocial outcomes among FGCS.

Figure 1

Conceptual Model of an Integrative Framework Combining The Community Cultural Wealth Model and Intersectionality to Examine Intersectional Cultural Identities as Cultural Wealth

Intersectional Cultural Identity Capital**Academic Achievement and Positive Psychosocial Outcomes**

Study Purpose

The primary purpose of the current study was to understand the impact of FGCS' identity, across salient multidimensional domains. Variable- (i.e., path model analysis) and person-centered (i.e., latent profile analysis) approaches were utilized to allow for understanding the unique and joint effects of each dimension across domains on academic achievement and psychosocial adjustment, as well as the heterogeneity that may exist among FGCS in terms of cultural identity development. The current study helps to significantly advance and fill gaps in the broader identity and FGCS literature for several reasons. A positively developed ERI and USI (for a review, see Meca et al., 2023b) have been linked to better academic and psychosocial outcomes among general college student samples. Despite the wealth of research on cultural identity's positive impact among college students, there has been limited research among FGCS. Given the academic (Cataldi et al., 2018; RTI International, 2019b) and cultural (Covarrubias et al., 2020; Ellis et al., 2019; Stephens et al., 2012) stressors faced by FGCS, understanding how cultural identities may serve as an asset can influence future asset-based research and interventions or programming for these students.

Another limitation of previous research is the exclusion of White college students. While FGCS experience similarities due to their shared marginalized status of being the first in their family to receive a bachelor's degree, there are important ethnic-racial differences across White and ethnic-racial minoritized FGCS that should be considered. Moreover, more than half of FGCS in U.S. higher education are ethnic-racial minoritized youth (RTI International, 2019a). First, although FGCS typically come from a lower financial background than CGCS (RTI International, 2019a), there has been a history of White families having significantly higher overall economic wealth than ethnic-racial minoritized families in the U.S. (Aladangady &

Forde, 2021). Additionally, ethnic-racial minoritized individuals face challenges of systemic racism in the U.S. (McCluney et al., 2020), which can affect their cultural identity as well as overall well-being. Lastly, ethnic-racial minoritized FGCS have reported different experiences than White FGCS in terms of coping and help-seeking behaviors in higher education (Chang et al., 2020). Given the importance of intersectionality and ethnic-racial differences, a secondary purpose of the current study was to examine whether there were differences across ethnic-racial groups (i.e., Black and White FGCS). Secondary data were utilized in which FGCS completed an online survey that assessed cultural identity development, indicators of positive psychosocial adjustment (i.e., satisfaction with life, self-esteem, and psychological well-being), and demographic information including self-reported cumulative GPA.

Specific Aims

Aim 1

To examine the unique effects of FGCS, ERI, and USI cultural identity processes (i.e., exploration, resolution) and content (i.e., affirmation) dimensions on academic achievement (i.e., cumulative GPA) and positive psychosocial outcomes (i.e., self-esteem, satisfaction with life, and psychological well-being) among FGCS (see Figure 2). Prior studies have indicated that higher levels of cultural identity resolution and affirmation are generally associated with more desirable outcomes, however, associations between exploration and outcomes have been mixed (Allison et al., 2023b; Meca et al., 2023b). The following hypotheses will reflect each dimension across domains, rather than hypothesizing which specific domain's dimension will be more critical.

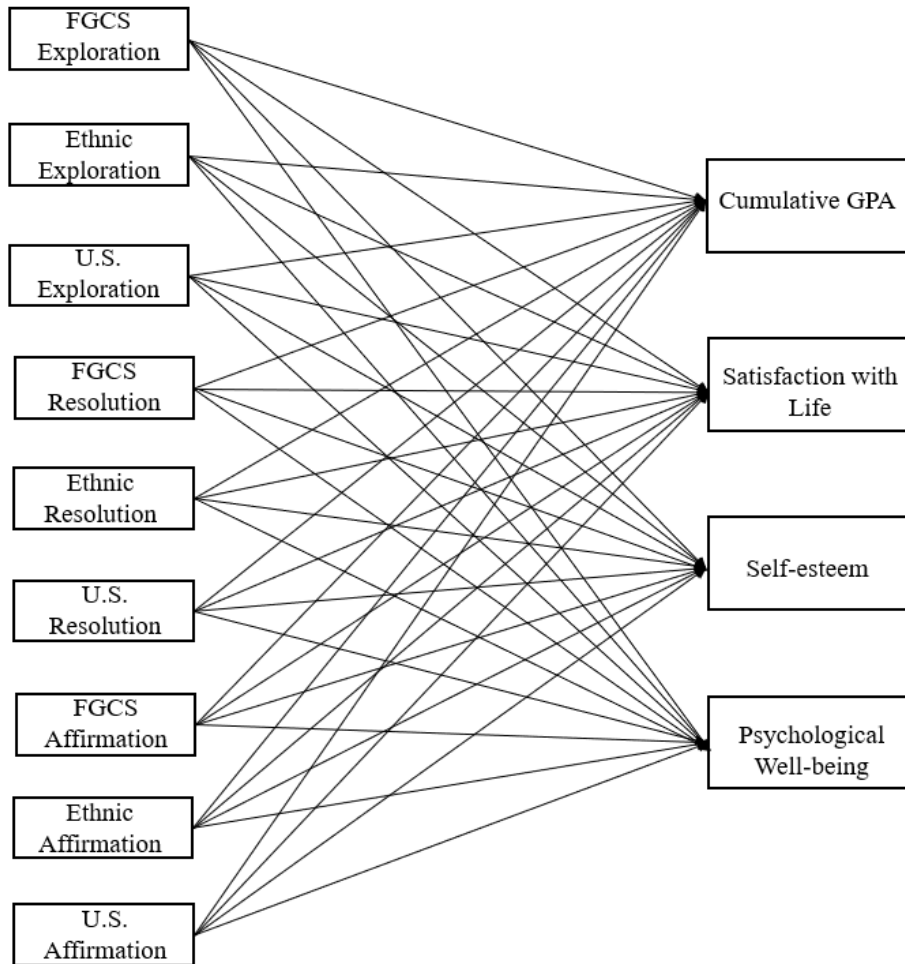
Hypothesis 1a: It was hypothesized that resolution will be positively associated with academic achievement and positive psychosocial outcomes for FGCS.

Hypothesis 1b: It was hypothesized that affirmation will be positively associated with academic achievement and positive psychosocial outcomes for FGCS.

Hypothesis 1c: Given that prior research on exploration's associations with academic and psychosocial outcomes have been mixed, these analyses were considered to be exploratory, and no hypotheses were made for this aim.

Figure 2

Associations Between FGCS, Ethnic-Racial, and U.S. Identity Process (i.e., exploration and resolution) and Content (i.e., affirmation) Dimensions with Academic Achievement (i.e., cumulative GPA) and Positive Psychosocial Adjustment (i.e., satisfaction with life, self-esteem, psychological well-being)



Aim 2

To examine if there were differences amongst the relationships for cultural identity dimensions with academic achievement and positive psychosocial adjustment between Black and White FGCS. Prior research has indicated that ethnic-racial minoritized individuals report significantly different levels of ERI (Umaña-Taylor et al., 2004), USI (Martinez-Fuentes et al., 2021), and FGCS identity (Allison et al., 2023b) compared to White individuals. However, findings have been mixed on ethnic-racial differences for ERI and USI dimensions' associations with psychosocial outcomes (e.g., Rodil et al., 2022; Schwartz et al., 2009; Sladek et al., 2020), and no prior research has examined the associations with academic outcomes. Further, no prior research has examined ethnic-racial differences for FGCS identity dimensions' associations with academic and psychosocial outcomes. Therefore, multi-group path analyses were conducted to determine if the relationships of cultural identity dimensions with academic achievement and positive psychosocial outcomes vary across ethnic-racial groups.

Hypothesis 2a: Given that prior research on ethnic-racial differences for ERI and USI dimensions' associations with psychosocial outcomes have been mixed, these analyses were considered to be exploratory, and no hypotheses were made for this aim.

Hypothesis 2b: Given that there is no prior research evidence for ethnic-racial differences for ERI and USI dimensions' associations with academic outcomes, these analyses were considered to be exploratory, and no hypotheses were made for this aim.

Hypothesis 2c: Given that there is no prior research evidence for ethnic-racial differences for FGCS identity dimensions' associations with academic and psychosocial outcomes, these analyses were considered to be exploratory, and no hypotheses were made for this aim.

Aim 3

To identify unique configurations of cultural identity dimensions among FGCS that represent distinct cultural identity profiles from patterns in the data using measures of ERI, USI, and FGCS identity exploration, resolution, and affirmation. Utilizing latent profile analysis (LPA), prior research has identified ERI profiles among a sample of Black and Latinx youth (Wantchekon & Umaña-Taylor, 2021), as well as ethnic-racial and U.S. identity profiles among Asian, Black, and Latinx youth (Cheon et al., 2020), as well as Hispanic/Latinx college students (Meca et al., 2023c), all of which extracted 3 similar profiles from the data patterns that broadly reflected low levels of cultural identity, moderate levels of cultural identity, and high levels of cultural identity. Similarly, the proposed study will conduct LPA with ERI and USI dimensions, but will also include FGCS identity processes and content. To examine if there are differences across Black and White FGCS subsamples, LPA analyses were conducted separately for each group. Prior research has indicated that ethnic-racial minoritized individuals report significantly higher levels of ERI (Umaña-Taylor et al., 2004), USI (Martinez-Fuentes et al., 2021), and FGCS identity (Allison et al., 2023b) compared to White individuals.

Hypothesis 3a: It was hypothesized that there will be at least three profiles to emerge: Diffused & Low (i.e., low levels of process and content dimensions), Diffused & Neutral (i.e., low levels of process and average levels of content dimensions), and Developed & High (i.e., high levels of process and content dimensions) across the full sample, Black subsample, and White subsample.

Aim 4

To examine if the cultural identity profiles are associated with academic achievement (i.e., cumulative GPA) and positive psychosocial outcomes (i.e., self-esteem, satisfaction with

life, and psychological well-being) across the full sample, as well as the Black and White subsamples. Prior studies have consistently found that the profiles with the highest levels of cultural identity process and content have the highest levels of academic and psychosocial adjustment, whereas the profiles with the lowest levels of cultural identity processes and content are associated with poorer academic and psychosocial adjustment (Cheon et al., 2020; Meca et al., 2023c; Wantchekon & Umaña-Taylor, 2021).

Hypothesis 4a: Profiles with the highest levels of cultural identity dimensions will be associated with greater academic and psychosocial adjustment.

Hypothesis 4b: Profiles with the lowest levels of cultural identity dimensions will be associated with poorer academic and psychosocial adjustment.

CHAPTER II

METHOD

Secondary Data

The current study utilized secondary data that I collected for my master's thesis study from Spring-Summer 2021. The inclusion criteria included that participants must be current college students whose parent(s)/legal guardian(s) have not completed a bachelor's degree, which is the Department of Education's definition for first-generation college students (Higher Education Act of 1965). Given that FGCS are less likely to be the traditional college student ages of 18-29 years old (RTI International, 2019a), participants were not excluded above this age range. Participant recruitment occurred in two phases. Students were recruited through 1) Old Dominion University's psychology research participant pool (see Appendix D), 2) and any first-generation college students currently enrolled at ODU in August 2021 were sent recruitment emails including a brief description of the study, compensation for participation, and a link to the study (see Appendix E). Email addresses were provided by ODU's Office of Institutional Effectiveness. Participants completed an eligibility survey (see Appendix A), if they were considered eligible, they were directed to the main survey through Qualtrics at their own convenience. Once participants completed the main survey, they were directed to an incentives survey where they could choose to receive research credit by providing their research ID or to be entered into a raffle for a \$50 Amazon gift card by providing a valid college email address in exchange for completing the survey. IRB approval was obtained from ODU's Institutional Review Board prior to disseminating the surveys (approval number: 1732910-4).

Participants

The total sample size included 472 current first-generation college students. Due to a lack of significant representation, 9 cases were removed who identified as non-binary or trans (female to male), and 4 cases were removed who selected ‘other class.’ The final sample size included 459 participants ($M_{age} = 24.4$ years, $SD = 8.2$) who identified as Black, African American, Afro-Caribbean, Black African, Other in this category (male: $n = 30$, 6.5%; female; $n = 186$, 40.5%) or Caucasian, White, European American, White European, Other in this category (male: $n = 49$, 10.7%; female: $n = 194$, 42.3%). The sample was fairly equally distributed across academic year: 18.3% freshmen, 17.9% sophomores, 25.9% juniors, 33.8% seniors, and 4.1% graduate students. Socioeconomic status (SES) was assessed with one item, “Growing up, how much were finances an issue for you or your immediate family?”, responses included 16.6% “Difficulty meeting my/my family’s basic needs,” 20.0% “Barely able to meet my/my family’s basic needs,” 37.5% “Once-in-a-while have difficulty covering my/my family’s basic needs,” 21.6% “No difficulty covering basic needs,” and 4.4% “Have extra money each month.” Participants selected one of the following ranges for cumulative GPA: *Below 2.0* (4.4%), *2.00-2.50* (12.2%), *2.51-3.00* (19.6%), *3.01-3.50* (28.3%), and *3.51-4.00* (33.6%).

Sample size determination for both latent profile and latent transition models is highly complex and dependent upon many factors, including the overall contingency table size, number and distribution of indicators, true class separation, class prevalence within and across time points, and actual likelihood of longitudinal profile transitioning. However, as a rule of thumb, a sample size of 300 should provide reliable and stable estimates for most models (Collins & Lanza, 2009), suggesting sufficient power.

Measures

First-Generation College Student Identity

The First-Generation College Student Identity Scale (FGCSIS; Allison et al., 2023b; see Appendix B) was used to assess FGCS identity exploration with 7 items ($\alpha = .90$; sample item: “I have attended events that have helped me learn more about being a first-generation college student”), FGCS identity resolution with 4 items ($\alpha = .92$; sample item: “I know what being a first-generation college student means to me”), and FGCS identity affirmation with 6 items ($\alpha = .88$; sample item: “I dislike being a first-generation college student” [reverse coded]).

Participants rated the items on a 7-point Likert-type scale that ranges from 1 (*strongly disagree*) to 7 (*strongly agree*). Each subscale was scored as the average of all items on the corresponding subscale. The FGCSIS has displayed acceptable internal validity, reliability, and measurement invariance across Black and White college students in previous research (Allison et al., 2023b).

Ethnic-Racial Identity

The 17-item Ethnic Identity Scale (EIS; Umaña-Taylor et al., 2004; see Appendix B) was used to assess ERI exploration with 7 items ($\alpha = .75$; sample item: “I have participated in activities that have taught me about my ethnicity”), ERI resolution with 4 items ($\alpha = .76$; sample item: “I am clear about what my ethnicity means to me”), and ERI affirmation with 6 items ($\alpha = .94$; sample item: “I wish I were of a different ethnicity” [reverse coded]). Participants rated the items on a 5-point Likert-type scale that ranges from 1 (*strongly disagree*) to 5 (*strongly agree*). Each subscale was scored as the average of all items on the corresponding subscale. The EIS has displayed acceptable internal validity, reliability, and measurement invariance across Black and White college students in previous research (Allison et al., 2023a).

U.S. Identity

The 17-item United States Identity Scale (USIS; Meca et al., 2020; see Appendix B) was used to assess USI exploration with 7 items ($\alpha = .75$; sample item: “I have attended events that have helped me learn more about the United States”), USI resolution with 4 items ($\alpha = .76$; sample item: “I understand how I feel about being American”), and USI affirmation with 6 items ($\alpha = .96$; sample item: “I am not happy with being American” [reverse coded]). Participants rated the items on a 5-point Likert-type scale that ranges from 1 (*strongly disagree*) to 5 (*strongly agree*). Each subscale was scored as the average of all items on the corresponding subscale. The USIS has displayed acceptable validity, reliability, and measurement invariance across Black and White college students in previous research (Rodil et al., 2022).

Positive Psychosocial Outcomes

The 10-item Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965; see Appendix B) was used to assess self-esteem ($\alpha = .90$; sample item: “On the whole, I am satisfied with myself”). Participants rated the items on a 5-point Likert-type scale that ranges from 1 (*strongly agree*) to 5 (*strongly disagree*). The 18-item Scales of Psychological Well-Being (SPWB; Ryff & Keyes, 1995; see Appendix B) assessed psychological well-being ($\alpha = .80$; sample item: “In general, I feel I am in charge of the situation in which I live”). Participants rated the items on a 6-point Likert-type scale that ranges from 1 (*strongly disagree*) to 6 (*strongly agree*). The 5-item Satisfaction with Life Scale (SWLS; Diener et al., 1985; see Appendix B) was used to assess satisfaction with life ($\alpha = .89$; sample item: “I am satisfied with my life”). Participants rated the items on a 7-point Likert-type scale that ranges from 1 (*strongly disagree*) to 7 (*strongly agree*). All psychosocial outcomes were scored as a total sum of all items on the corresponding scale.

Demographics

Demographics include age, parental education, gender, ethnicity, socioeconomic status, major, class standing, student status, and self-reported cumulative GPA (see Appendix C).

Analytic Plan

The data were cleaned and checked for statistical assumptions for each analysis prior to analyses in IBM SPSS Statistics version 29 (IBM Corp, 2022). All analyses were conducted in Mplus 8.7 (Muthén & Muthén, 1998-2017) with a Robust Maximum Likelihood (MLR) estimator, utilizing Full Information Maximum Likelihood (FIML) for missing data.

Prior to the main analyses, collinearity statistics such as Tolerance and the variance inflation factor (VIF) were conducted to assess the assumption of multicollinearity, with cut-off values of .10 for tolerance and 10 for VIF (George & Mallery, 2010). Additionally, the statistical assumptions of regression were tested in SPSS given that path analysis is an extension of multiple regression. The first assumption is that there should be a linear relationship between the predictors and criterion variables. To assess linearity, scatterplots of the unstandardized residuals were produced. The second assumption is that all relevant predictors are included in the model. Utilizing prior research discussed above, the proposed study included all necessary predictors. The third assumption is that variables are measured error free. Although this assumption can never be truly met, measures with high reliability and validity were utilized to reduce any possible measurement error. The fourth assumption is that there should be homoscedasticity, or that residuals have constant variance. Homoscedasticity was assessed by scatterplots of standardized residuals and standardized predicted values. The fifth assumption is independence of residuals, which was assessed by the Durbin Watson test to examine whether values are

between 1.5-2.5. The sixth assumption is that residuals are normally distributed, which was assessed by histograms and Q-Q plots.

Additionally, the basic statistical assumptions of LPA were tested in SPSS. The first assumption is that all relevant predictors are included in the model. Utilizing prior research discussed above, the current study included all necessary predictors. Additionally, although the assumption of error free measures can never be truly met, measures with high reliability and validity were utilized to reduce any possible measurement error. Normal distribution of data was assessed for each variable by following a criteria of ± 2.00 skewness and kurtosis scores. Univariate outliers were examined through the use of boxplots. Finally, Cook's D was utilized to assess for multivariate outliers.

The first aim took a variable-centered approach to examine the unique effects of cultural identity (i.e., FGCS, ethnic-racial, and U.S.) dimensions (i.e., exploration, resolution, affirmation) on academic achievement and positive psychosocial outcomes. As such, path modeling was conducted for each cultural identity dimension with self-reported cumulative GPA, self-esteem, satisfaction with life, and psychological well-being. Given that prior research has indicated differences in cultural identity across ethnic-racial groups (e.g., Allison et al., 2023b; Martinez-Fuentes et al., 2021; Umaña-Taylor et al., 2004), genders (e.g., Schwartz et al., 2014), age (Williams et al., 2020), class year (Syed & Azmitia, 2009), and SES (Kaplan et al., 2016), these variables were controlled for in the model. All variables were treated as continuous. Because it's a fully saturated model, non-significant covariates were trimmed. Model fit was evaluated by the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). Moreover, Little's (2013) suggested values for model fit were utilized including good fit represented as $CFI \geq .95$, RMSEA

$\leq .06$, and SRMR $\leq .061$; adequate fit as CFI = .90-.95, RMSEA = .06-.08, and SRMR = .06-.08; and mediocre fit as CFI = .85-.90, RMSEA = .08-.10, and SRMR = .08-.10.

Next, multi-group path analyses were conducted to determine if the associations of cultural identity dimensions with academic achievement and positive psychosocial outcomes vary across ethnic-racial groups. In order to examine whether the models between the Black FGCS and White FGCS subsamples were equivalent, an unconstrained model where all paths were free to vary was compared against a constrained model where each path was constrained to be equal, utilizing Little's (2013) criteria of ΔCFI ($\geq .010$) and ΔRMSEA ($\geq .010$). Ethnic-racial groups were dummy-coded with 0 (Black) and 1 (White). Although the χ^2 value was reported, it was not used to determine model fit because it tests a null hypothesis of perfect fit, which is typically unlikely for large sample sizes and/or complex models (Davey & Savla, 2010).

The third aim took a person-centered approach to identify unique configurations of ERI, USI, and FGCS identity dimensions (i.e., exploration, resolution, affirmation) across Black and White FGCS. Rather than conduct covariate analyses with ethnic-racial group membership as the covariate, LPA analyses were conducted separately for each group. This approach was chosen in order to take a strengths approach, rather than a *deficit by difference approach* in which researchers may overemphasized cultural differences which in turn reinforce deficit views of minoritized groups (Causadias et al., 2018). In order to identify these configurations, latent profile analysis (LPA) was utilized to determine cultural identity profiles. All variables were standardized for ease of interpretation. Following Ferguson et al.'s (2020) recommendations for conducting latent profile analysis in Mplus, model retention was established through examination of fit indices, entropy values, minimum sample size, and conceptual interpretability. Beginning with a two-profile solution, additional profiles were added to the model until there was no

significant improvement in the following fit indices: Bayesian Information Criterion (BIC), sample-adjusted BIC (SABIC), and Akaike Information Criterion (AIC). Additionally, entropy values were examined to determine profile distinction, with a standard of values $\geq .80$. However, when entropy is lower than .70, posterior profile membership probabilities should be used as weighting variables (Ferguson et al., 2020). Next, the Lo-Mendell Rubin (adjusted LMR) likelihood ratio test and the Bootstrapped Likelihood Ratio Test (BLRT) were examined to determine when additional profiles offer no significant improvement of model fit. In addition, individual profiles must have at least 5% of the sample represented to ensure stability. Last and most importantly, the final profile solution should be conceptually interpretable with theoretical support.

Next, analyses were conducted to examine whether there were significant differences across academic achievement and positive psychosocial outcomes between the unique cultural identity profiles determined in aim 3. To this end, the three-step BCH approach (Bolck et al., 2004), in which a latent profiles are examined in a weighted multiple group analyses which accounts for error within the latent class variable, was utilized to examine each identified profile's relationship to self-reported cumulative GPA, self-esteem, satisfaction with life, and psychological well-being.

CHAPTER III

RESULTS

Data Cleaning

Prior to the main analyses, the data were cleaned and checked for assumptions in SPSS 29. Missing data was handled utilizing Full Information Maximum Likelihood (FIML), which is the default in Mplus with a Robust Maximum Likelihood (MLR) estimator that utilizes all available information in the data to estimate model parameters. All statistical assumptions of regression were met for the full sample as well as for both the Black and White subsamples. Moreover, all statistical assumptions of LPA were met with the exception of univariate and multivariate outliers. Two data points were identified as extreme univariate outliers in the Black subsample. As a result, one data point of 1.33 was Winsorized to the next highest value of 1.83 on ERI affirmation, and one data point of 1.29 was Winsorized to the next highest value of 1.57 on ERI exploration. Additionally, six data points were identified as extreme univariate outliers in the White subsample. As a result, three data points of 1.00 and three data points of 1.50 were Winsorized to the next highest value of 1.75 on ERI resolution. No extreme univariate outliers were identified in the full sample. Further, according to the cutoff of $4/(N-k-1)$ for k predictors and N data points (Hair et al., 1998), 23 multivariate outliers were identified in the full sample, 11 multivariate outliers were identified in the Black subsample, and 17 multivariate outliers were identified in the White subsample. Given that regression and LPA are highly impacted by outliers, these data points were removed for all analyses.

Aim 1: Variable-Centered Approach

First, all predictors (FGCS, ERI, and USI affirmation, exploration, and resolution) and outcomes (GPA, psychological well-being, satisfaction with life, and self-esteem) were

estimated simultaneously in a path model (see Table 1). Additionally, age, class, gender, ethnic-racial group membership (i.e., Black or White), and SES were entered as covariates. Because this model was fully saturated, non-significant paths were trimmed from the model. Specifically, the associations between age with GPA ($\beta = .060, p = .193$), self-esteem ($\beta = .056, p = .214$), satisfaction with life ($\beta = -.012, p = .821$), and psychological well-being ($\beta = .075, p = .054$) were dropped. Next, the associations between ethnicity with self-esteem ($\beta = -.088, p = .072$), satisfaction with life ($\beta = -.027, p = .627$), and psychological well-being ($\beta = .061, p = .280$) were dropped. Additionally, the associations between class year with GPA ($\beta = .004, p = .933$), self-esteem ($\beta = .064, p = .168$), satisfaction with life ($\beta = .026, p = .634$), and psychological well-being ($\beta = .042, p = .389$) were dropped. Finally, the associations between SES with GPA ($\beta = -.033, p = .476$), self-esteem ($\beta = .009, p = .812$), and psychological well-being ($\beta = -.014, p = .727$) were dropped.

The resulting model was associated with good fit across all indices ($\chi^2(6) = 10.837, p = .093$; RMSEA = 0.044, [90% CI = .00, .08]; CFI = 0.993; SRMR = 0.008). In terms of FGCS identity, results yielded that FGCS affirmation was positively and significantly associated with GPA ($\beta = .122, p = .018$), self-esteem ($\beta = .248, p < .001$), satisfaction with life ($\beta = .229, p < .001$), and psychological well-being ($\beta = .141, p = .001$). Further, FGCS resolution was positively and significantly associated with self-esteem ($\beta = .100, p = .025$), satisfaction with life ($\beta = .110, p = .021$), and psychological well-being ($\beta = .124, p = .004$). However, FGCS resolution was not significantly associated with GPA. In contrast, FGCS exploration was not significantly associated with any of the outcome variables.

In terms of ERI, results yielded that ERI affirmation was positively and significantly associated with self-esteem ($\beta = .197, p < .001$), and psychological well-being ($\beta = .132, p =$

.016). However, ERI affirmation was not significantly associated with GPA, or satisfaction with life. Further, ERI resolution was positively and significantly associated with self-esteem ($\beta = .138, p = .004$), and satisfaction with life ($\beta = .139, p = .026$). However, ERI resolution was not significantly associated with GPA, or psychological well-being. In contrast, ERI exploration was not significantly associated with any of the outcome variables.

In terms of USI, results yielded that USI affirmation was positively and significantly associated with self-esteem ($\beta = .293, p < .001$), satisfaction with life ($\beta = .272, p < .001$), and psychological well-being ($\beta = .242, p < .001$). However, USI affirmation was not significantly associated with GPA. Further, USI exploration was positively and significantly associated with self-esteem ($\beta = .101, p = .039$), and psychological well-being ($\beta = .229, p < .001$). However, USI exploration was not significantly associated with GPA, or satisfaction with life. Finally, USI resolution was positively and significantly associated with self-esteem ($\beta = .115, p = .031$), satisfaction with life ($\beta = .132, p = .028$), and psychological well-being ($\beta = .165, p = .010$). However, USI resolution was not significantly associated with GPA.

Finally, in terms of key demographic covariate variables, ethnicity was positively and significantly associated with GPA ($\beta = .336, p < .001$). Additionally, SES ($\beta = .210, p < .001$) was positively and significantly associated with satisfaction with life.

Table 1*Standardized Direct Effects of Cultural Identity Dimensions on Positive Psychosocial**Functioning*

Outcome	Predictor	Estimate	S.E.	Two-Tailed p-value	95% CI
GPA	FGCS Affirmation	.122	.052	.018	.021 to .224
	FGCS Exploration	.024	.054	.657	-.082 to .130
	FGCS Resolution	.023	.052	.653	-.078 to .125
	ERI Affirmation	.025	.073	.733	-.119 to .169
	ERI Exploration	.014	.057	.804	-.097 to .125
	ERI Resolution	-.115	.070	.103	-.252 to .023
	USI Affirmation	-.082	.059	.166	-.198 to .034
	USI Exploration	.069	.062	.266	-.052 to .190
	USI Resolution	-.018	.074	.805	-.162 to .126
	Ethnicity	.331	.061	<.001	.211 to .451
Self-Esteem	FGCS Affirmation	.248	.038	<.001	.172 to .323
	FGCS Exploration	-.017	.042	.680	-.099 to .064
	FGCS Resolution	.100	.045	.025	.013 to .188
	ERI Affirmation	.197	.048	<.001	.104 to .290
	ERI Exploration	.048	.047	.308	-.044 to .140
	ERI Resolution	.138	.048	.004	.043 to .232
	USI Affirmation	.293	.042	<.001	.210 to .376
	USI Exploration	.101	.049	.039	.005 to .197
Satisfaction with Life	USI Resolution	.115	.053	.031	.011 to .220
	FGCS Affirmation	.229	.048	<.001	.134 to .323
	FGCS Exploration	.057	.048	.235	-.037 to .151
	FGCS Resolution	.110	.048	.021	.016 to .204
	ERI Affirmation	-.063	.058	.281	-.176 to .051
	ERI Exploration	-.006	.049	.904	-.102 to .090
	ERI Resolution	.139	.062	.026	.017 to .261
	USI Affirmation	.272	.051	<.001	.173 to .371
	USI Exploration	.005	.045	.908	-.084 to .094
	USI Resolution	.132	.060	.028	.014 to .250
Psychological Well-Being	SES	.210	.042	<.001	.127 to .293
	FGCS Affirmation	.141	.042	.001	.058 to .224
	FGCS Exploration	-.047	.043	.269	-.131 to .037

Table 1*(Continued)*

Outcome	Predictor	Estimate	S.E.	Two-Tailed p-value	95% CI
	FGCS Resolution	.124	.043	.004	.040 to .207
	ERI Affirmation	.132	.055	.016	.025 to .240
	ERI Exploration	-.004	.052	.932	-.105 to .097
	ERI Resolution	.062	.058	.285	-.052 to .177
	USI Affirmation	.242	.054	<.001	.136 to .348
	USI Exploration	.229	.053	<.001	.125 to .332
	USI Resolution	.165	.064	.010	.039 to .290

Aim 2: Variable-Centered Ethnic-Racial Differences

Next, multigroup path analysis was conducted with the same predictors, outcomes, and covariates from the previous model. Ethnic-racial groups were dummy-coded with 0 (Black) and 1 (White). Because this model was fully saturated, non-significant paths were trimmed from the model. Specifically, the associations between age with GPA ($\beta = .037, p = .637$), self-esteem ($\beta = .089, p = .205$), and satisfaction with life ($\beta = -.029, p = .718$), and psychological well-being ($\beta = .067, p = .166$) were dropped. Next, the associations between gender with GPA ($\beta = -.004, p = .956$), self-esteem ($\beta = -.042, p = .518$), and psychological well-being ($\beta = .029, p = .567$) were dropped. Additionally, the associations between class year with GPA ($\beta = .001, p = .987$), self-esteem ($\beta = .063, p = .403$), satisfaction with life ($\beta = -.031, p = .701$), and psychological well-being ($\beta = .004, p = .958$) were dropped. Finally, the associations between SES with GPA ($\beta = -.064, p = .353$), self-esteem ($\beta = -.003, p = .954$), and psychological well-being ($\beta = .023, p = .718$) were dropped. The unconstrained model provided good fit to the data ($\chi^2(12) = 8.345, p = .757$; CFI = 1.000; RMSEA = .000; SRMR = .008). Constraining all paths to be equal across ethnic-racial groups, there were no significant changes in model fit [$\Delta\chi^2(48) = 51.957, p = .322$; $\Delta\text{CFI} = -.006$; $\Delta\text{RMSEA} = .020$; $\Delta\text{SRMR} = .020$].

Aim 3: Person-Centered Approach

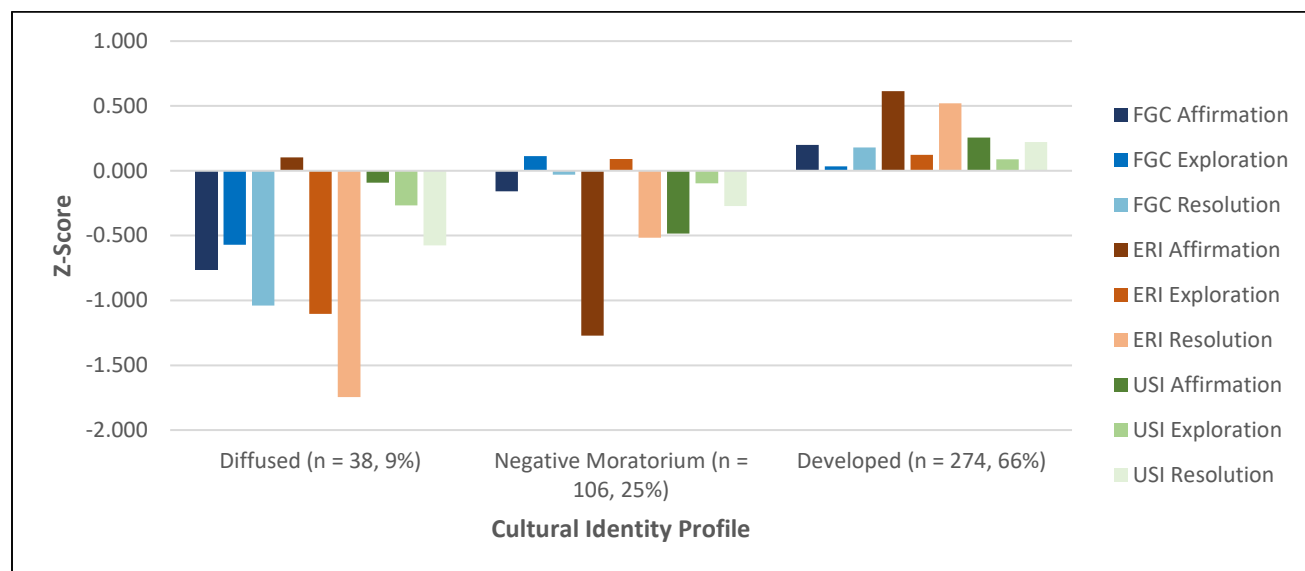
In order to identify unique configurations across ERI, USI, and FGCS identity dimensions, latent profile analysis (LPA) was utilized to determine cultural identity profiles. Nine mean subscale scores for each cultural identity domain's (i.e., FGCS, ERI, USI) dimension (i.e., exploration, resolution, affirmation) were used as latent profile indicators. First, LPA was conducted for the full sample including Black and White FGCS. Beginning with a two-profile solution, additional profiles were added until model fit was not significantly improved (see Table

2). Ultimately, the three-profile solution was chosen as the championed model based on the resulting fit indices and theoretical justification (see Figure 3). Although the LMR did not reach significance for the three-profile model, simulation studies have indicated that the BLRT provides better indication of model fit (Nylund et al., 2007). Fit indices including AIC, BIC, and SABIC had greater improvement for the three-profile solution compared to the four-profile solution. Additionally, entropy increased in the three-profile solution, whereas entropy decreased for the four-profile solution. Finally, the three-profile showed more similarities to profiles identified in previous research.

The three profiles were classified as Diffused ($n = 38$, 9%), Negative Moratorium ($n = 106$, 25%), and Developed ($n = 274$, 66%). The Diffused profile was marked by below average levels of all dimensions of ERI, USI, and FGCS identity. However, it was particularly marked by lower levels of ERI and FGCS identity, with the exception of an average level of ERI affirmation. The Negative Moratorium profile was marked by below average ERI, USI, and FGCS identity resolution but with slightly above average ERI and FGCS identity exploration dimensions, thus represented as identity moratorium profile. It was also marked by negative levels of affirmation, in particular, ERI affirmation, and to a lesser extent, USI affirmation. Finally, the Developed profile was marked by above average levels of all ERI, USI, and FGCS identity dimensions. However, it was particularly marked by high levels of ERI affirmation and resolution dimensions.

Table 2*Full Sample Latent Profile Analysis Model Comparisons*

Model	LL	AIC	BIC	SABIC	Entropy	Smallest class %(n)	LMR <i>p</i> -value	BLRT <i>p</i> -value
2	-4540.65	9137.30	9250.30	9161.44	0.619	42%(176)	.085	.000
3	-4470.26	9016.53	9169.88	9049.29	0.773	9%(38)	.128	.000
4	-4419.52	9031.60	9128.74	8976.42	0.746	8%(35)	.193	.000

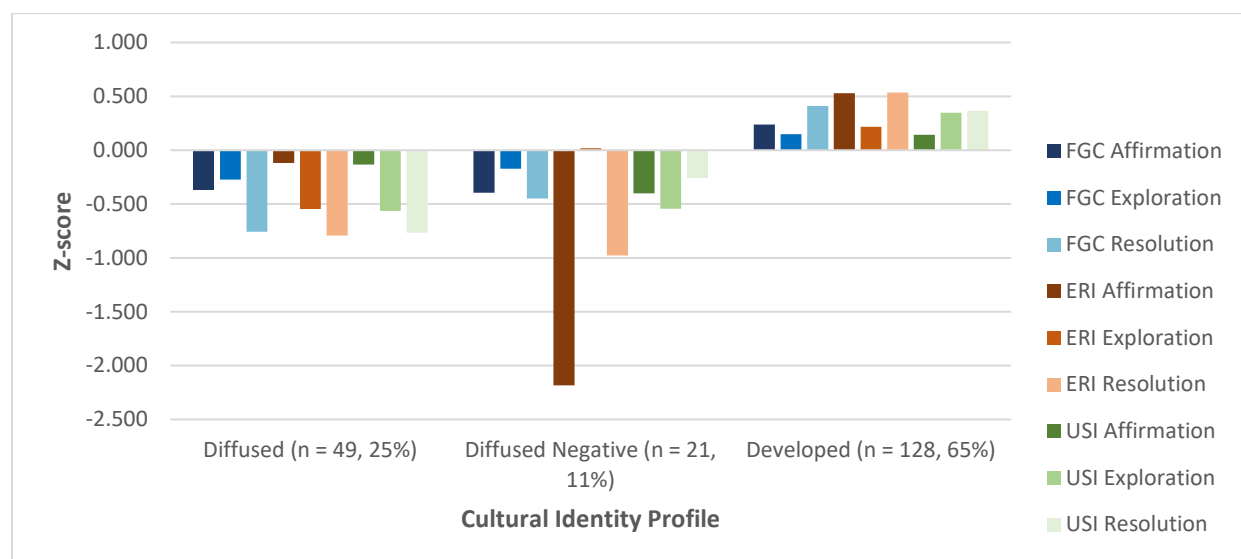
Figure 3*Full Sample Cultural Identity Profile Configurations*

Next, LPA was conducted for the subsample of Black FGCS. Beginning with a two-profile solution, additional profiles were added until model fit was not significantly improved (see Table 3). Ultimately, the three-profile solution was chosen as the championed model based on the resulting fit indices and theoretical justification (see Figure 4). Although the LMR did not reach significance for the three-profile, simulation studies have indicated that the BLRT provides better indication of model fit (Nylund et al., 2007). Fit indices including AIC, BIC, and SABIC had greater improvement for the three-profile solution compared to the four-profile solution. Entropy increased in the three-profile and four-profile solution; however, the four-profile smallest class was < %5 (1%). Finally, the three-profile showed similarities to profiles identified in previous research.

The three profiles were classified as Diffused ($n = 49$, 25%), Diffused Negative ($n = 21$, 11%), and Developed ($n = 128$, 65%). The Diffused profile was similar to the full sample in that it marked by below average levels of all dimensions of ERI, USI, and FGCS identity. However, it differed in that lack of endorsement, for each dimension, was similar across ERI, USI, and FGCS. The Diffused Negative was marked by below average levels of all dimensions of ERI, USI, and FGCS identity. However, it was particularly marked by low ERI affirmation. Finally, the Developed profile was marked by above average levels of all ERI, USI, and FGCS identity dimensions. However, it was particularly marked by high levels of ERI affirmation and resolution dimensions.

Table 3*Black Subsample Latent Profile Analysis Model Comparisons*

Model	LL	AIC	BIC	SABIC	Entropy	Smallest class %(n)	LMR <i>p</i> - value	BLRT <i>p</i> -value
2	-2117.056	4113.23	4205.30	4116.60	0.714	32%(64)	.029	.000
3	-2028.62	4025.95	4150.90	4030.52	0.752	11%(49)	.383	.000
4	-1974.975	3981.13	4138.97	3986.91	0.818	1%(2)	.453	.000

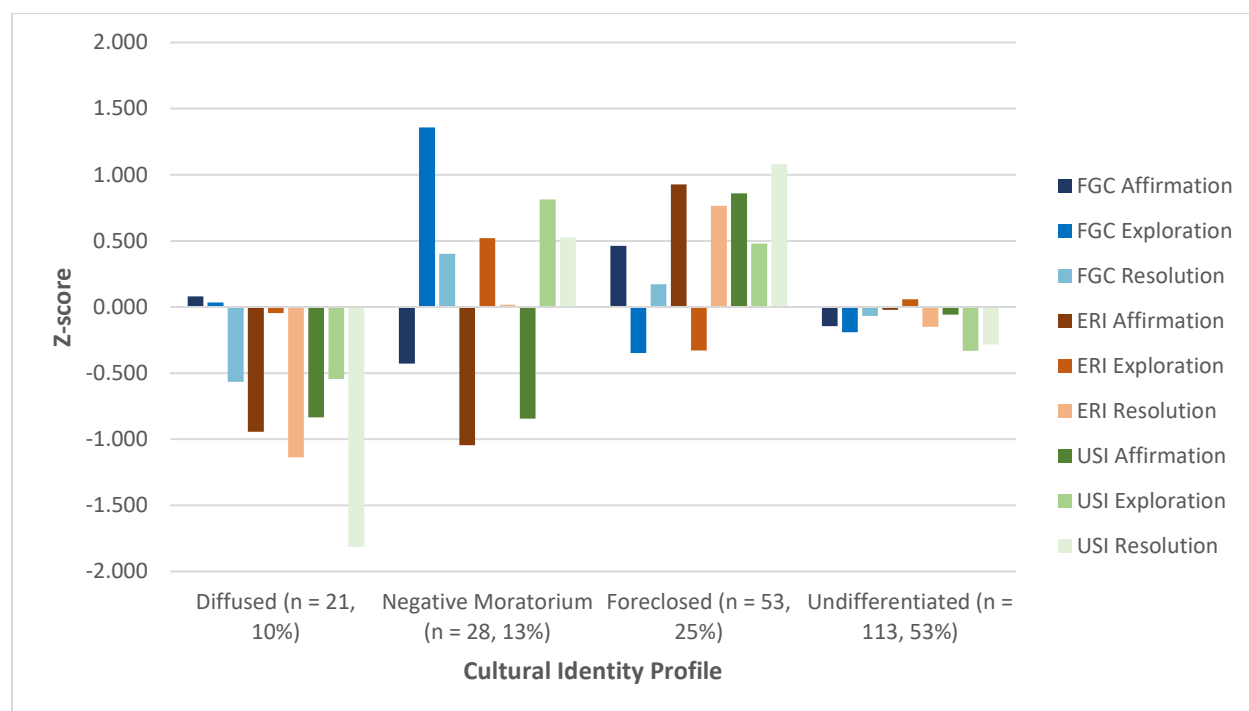
Figure 4*Black Subsample Cultural Identity Profile Configurations*

Next, LPA was conducted for the subsample of White FGCS. Beginning with a two-profile solution, additional profiles were added until model fit was not significantly improved (see Table 4). Ultimately, the four-profile solution was chosen as the championed model based on the resulting fit indices and theoretical justification (see Figure 5). Although the LMR did not reach significance for the four-profile, simulation studies have indicated that the BLRT provides better indication of model fit (Nylund et al., 2007). Fit indices including AIC, BIC, and SABIC had greater improvement for the four-profile solution compared to the three-profile solution. Entropy increased in the four-profile and five-profile solution; however, the five-profile smallest class was < %5 (3%).

The four profiles were classified as Diffused ($n = 21$, 10%), Negative Moratorium ($n = 28$, 13%), Foreclosed ($n = 53$, 25%), and Undifferentiated ($n = 113$, 53%). The Diffused profile was marked by below average levels of all ERI, USI, and FGCS identity dimensions, with the exception of slightly above average levels of FGCS identity affirmation and exploration dimensions. However, it was particularly marked by low levels of USI resolution. The Negative Moratorium profile was marked by above average ERI, USI, and FGCS identity exploration and resolution dimensions and below average ERI, USI, and FGCS identity affirmation dimensions. However, it was particularly marked by high FGCS identity exploration dimension, and low ERI and USI affirmation dimensions. The Foreclosed profile was marked by above average levels of ERI, USI, and FGCS identity affirmation and resolution, and USI exploration, and below average levels of ERI and FGCS identity exploration. However, it was particularly marked by high levels of ERI and USI affirmation and resolution dimensions. Finally, the Undifferentiated profile was marked by slightly below average levels of all ERI, USI, and FGCS identity dimensions, with the exception of slightly above average levels of ERI exploration.

Table 4*White Subsample Latent Profile Analysis Model Comparisons*

Model	LL	AIC	BIC	SABIC	Entropy	Smallest class %(n)	LMR <i>p</i> -value	BLRT <i>p</i> -value
2	-2478.886	4842.86	4937.23	4848.51	0.672	44%(96)	.004	.000
3	-2393.427	4797.25	4925.34	4804.92	0.733	18%(39)	.655	.000
4	-2360.579	4746.85	4908.64	4756.54	0.799	9%(21)	.498	.000
5	-2320.880	4670.93	4866.43	4682.64	0.879	3%(7)	.572	.000

Figure 5*White Subsample Cultural Identity Profile Configurations*

Aim 4: Cultural Identity Profiles' Associations with Academic and Psychosocial Outcomes

The fourth step in analyses included the three-step BCH approach (Bolck et al., 2004), in which latent profiles are examined in a weighted multiple group analyses that accounts for error within the latent class variable, was utilized to examine relationships between identified profiles in aim 3 for the full sample, Black subsample, and White subsample with self-reported cumulative GPA, self-esteem, satisfaction with life, and psychological well-being. First, the three-step BCH approach was conducted for the full sample including Black and White FGCS (see Table 5). In terms of GPA, the Diffused Negative profile reported the highest mean GPA, followed by the Diffused and the Developed profiles, respectively. The Diffused Negative profile reported significantly higher GPA than the Developed profile $\chi^2(2, N = 418) = 7.749, p = .005$. However, there were no significant differences between the Diffused Negative and Diffused profiles, or between the Diffused and Developed profiles.

In terms of positive psychosocial outcomes, the Developed profile reported the highest levels of self-esteem, satisfaction with life, and psychological well-being, followed by the Diffused Negative and Diffused profiles, respectively. The Developed profile reported significantly higher self-esteem $\chi^2(2, N = 418) = 48.924, p < .001$, satisfaction with life $\chi^2(2, N = 418) = 28.684, p < .001$, and psychological well-being $\chi^2(2, N = 418) = 17.021, p < .001$ than the Diffused profile. Moreover, the Developed profile reported significantly higher self-esteem $\chi^2(2, N = 418) = 57.016, p < .001$, satisfaction with life $\chi^2(2, N = 418) = 14.191, p < .001$, and psychological well-being $\chi^2(2, N = 418) = 17.625, p < .001$ than the Diffused Negative profile. The Diffused Negative profile reported significantly higher satisfaction with life $\chi^2(2, N = 418) = 7.008, p = .008$ than the Diffused profile. However, there were no significant differences

between the Diffused Negative and Diffused profiles for self-esteem, or psychological well-being.

Table 5*Estimated Standardized Means of GPA and Positive Psychosocial Outcomes Across Profile**Membership for the Full Sample*

Outcome	Diffused	Diffused Negative	Developed
GPA	3.87(0.23) ^{a,b}	4.04(0.12) ^a	3.61(0.08) ^b
Self-Esteem	30.64(1.24) ^b	32.95(0.71) ^b	40.33(0.56) ^a
Satisfaction with Life	14.80(1.12) ^c	18.33(0.60) ^b	21.50(0.49) ^a
Psychological Well-Being	71.73(3.04) ^b	77.80(1.26) ^b	85.37(1.09) ^a

Note. Standard errors are reported in parentheses. Means within rows that do not share a superscript are significantly different at $p < .05$.

Next, the three-step BCH approach was conducted for the subsample of Black FGCS (see Table 6). In terms of GPA, the Developed profile reported the highest mean GPA, followed by the Diffused Negative and Diffused profiles, respectively. However, there were no significant differences in GPA between the Diffused and Diffused Negative profiles, Diffused and Developed profiles, or between the Diffused Negative and Developed profiles.

In terms of positive psychosocial outcomes, the Developed profile reported the highest levels of self-esteem, followed by the Diffused and Diffused Negative profiles, respectively. The Developed profile reported significantly higher self-esteem than the Diffused profile $\chi^2(2, N = 198) = 28.390, p < .001$, and the Diffused Negative profile $\chi^2(2, N = 198) = 29.313, p < .001$. However, there were no significant differences in self-esteem between the Diffused and Diffused Negative profiles. Moreover, the Developed profile reported the highest levels of satisfaction with life and psychological well-being, followed by the Diffused Negative and Diffused profiles, respectively. The Developed profile reported significantly higher satisfaction with life $\chi^2(2, N = 198) = 16.450, p < .001$, and psychological well-being $\chi^2(2, N = 198) = 23.226, p < .001$ than the Diffused profile, as well as significantly higher psychological well-being than the Diffused Negative profile $\chi^2(2, N = 198) = 20.394, p < .001$. However, there were no significant differences in satisfaction with life between the Diffused and Diffused Negative profiles, or between the Diffused Negative and Developed profiles. Also, there were no significant differences in psychological well-being between the Diffused and Diffused Negative profiles.

Table 6

Estimated Standardized Means of GPA and Positive Psychosocial Outcomes Across Profile

Membership for the Black FGCS Subsample

Outcome	Diffused	Diffused Negative	Developed
GPA	3.30(0.21) ^a	3.35(0.28) ^a	3.39(0.11) ^a
Self-Esteem	32.95(1.25) ^b	32.31(1.42) ^b	41.22(0.74) ^a
Satisfaction with Life	15.36(1.20) ^b	19.18(1.46) ^b	21.35(0.68) ^{a,b}
Psychological Well-Being	69.83(2.90) ^b	72.88(2.61) ^b	86.96(1.58) ^a

Note. Standard errors are reported in parentheses. Means within rows that do not share a superscript are significantly different at $p < .05$.

Finally, the three-step BCH approach was conducted for the subsample of White FGCS (see Table 7). In terms of GPA, the Diffused profile reported the highest mean GPA, followed by the Undifferentiated, Negative Moratorium, and Foreclosed profiles, respectively. However, there were no significant differences between any of the profiles.

In terms of positive psychosocial outcomes, the Foreclosed profile reported the highest levels of self-esteem, satisfaction with life, and psychological well-being, followed by the Undifferentiated, Negative Moratorium, and Diffused profiles, respectively. The Foreclosed profile reported significantly higher self-esteem than the Diffused profile $\chi^2(2, N = 215) = 59.993, p < .001$, the Negative moratorium profile $\chi^2(2, N = 215) = 33.715, p < .001$, and the Undifferentiated profile $\chi^2(2, N = 215) = 31.830, p < .001$. The Undifferentiated profile reported significantly higher self-esteem than the Diffused profile $\chi^2(2, N = 215) = 10.366, p < .001$, and the Negative moratorium profile $\chi^2(2, N = 215) = 5.818, p = .016$. However, there were no significant differences in self-esteem between the Diffused and Negative Moratorium profiles.

Additionally, the Foreclosed profile reported significantly higher satisfaction with life than the Diffused profile $\chi^2(2, N = 215) = 22.173, p < .001$, the Negative Moratorium profile $\chi^2(2, N = 215) = 11.979, p = .001$, and the Undifferentiated profile $\chi^2(2, N = 215) = 22.469, p < .001$. However, there were no significant differences in satisfaction with life between the Diffused profile and Negative Moratorium profile, between the Undifferentiated profile and the Diffused profile, or between the Undifferentiated profile and the Negative Moratorium profile.

Finally, the Foreclosed profile reported significantly higher psychological well-being than the Diffused profile $\chi^2(2, N = 215) = 36.532, p < .001$, the Negative Moratorium profile $\chi^2(2, N = 215) = 12.338, p < .001$, and the Undifferentiated profile $\chi^2(2, N = 215) = 20.680, p < .001$. The Undifferentiated profile reported significantly higher psychological well-being than the

Diffused profile $\chi^2(2, N = 215) = 7.435, p = .006$. However, there were no significant differences in psychological well-being between the Diffused profile and the Negative Moratorium profile, or between the Negative Moratorium profile and the Undifferentiated profile.

Table 7*Estimated Standardized Means of GPA and Positive Psychosocial Outcomes Across Profile**Membership for the White FGCS Subsample*

Outcome	Diffused	Negative Moratorium	Foreclosed	Undifferentiated
GPA	4.40(0.17) ^a	4.11(0.20) ^a	4.01(0.18) ^a	4.13(0.12) ^a
Self-Esteem	29.89(1.46) ^c	30.46(1.82) ^c	42.76(1.02) ^a	35.38(0.71) ^b
Satisfaction with Life	17.05(1.23) ^c	17.85(1.61) ^c	24.13(0.79) ^a	19.02(0.65) ^c
Psychological Well-Being	72.67(2.71) ^c	78.43(3.36) ^{b,c}	91.60(1.57) ^a	81.42(1.43) ^b

Note. Standard errors are reported in parentheses. Means within rows that do not share a superscript are significantly different at $p < .05$.

CHAPTER IV

DISCUSSION

The purpose of the current study was to explore FGCS' cultural identity across several multidimensional domains including first-generation college student (FGCS) identity, ethnic-racial identity (ERI), and U.S. identity (USI) as intersectional cultural identity capital. Although studies have linked a positively developed ERI and USI (for a review, see Meca et al., 2023b) and FGCS identity (Allison et al., 2023b) to better academic and psychosocial outcomes in college student populations, this current study is the first to examine all three cultural identity domains among FGCS. In order to comprehensively examine the unique and joint effects of each identity dimension, variable-centered and person-centered approaches were utilized. As such, the current study examined each process (i.e., exploration and resolution) and content (i.e., affirmation) dimension's association with academic and positive psychosocial outcomes through path analysis. Additionally, unique configurations of ERI, USI, and FGCS identity dimensions were identified through latent profile analysis (LPA), and the associations between identified latent profiles with outcomes were examined.

In addition, the current study sought to explore whether there were differences in associations between cultural identity dimensions and outcomes, latent profile configurations, and associations between latent profiles and outcomes across ethnic-racial groups (i.e., Black and White FGCS). Analyses were broken down across ethnic-racial groups for several reasons. First, some researchers argue there has been a cultural (mis)attribution bias in developmental psychology which posits that ethnic-racial minoritized individuals are shaped by cultural processes, whereas White individuals are not (Causadias et al., 2018). As such, the current study sought to defy the stereotype that culture is limited to certain ethnic-racial groups. Further, there

are historical and systemic differences in SES (Aladangady & Forde, 2021), racism (McCluney et al., 2020), and even experiences as FGCS in higher education (Chang et al., 2020) between Black and White individuals that can affect cultural identity development and well-being. In addition, LPA analyses were conducted separately for each group instead of conducting covariate analyses. This approach was chosen in order to take a strengths approach, rather than a deficit by difference approach in which researchers may overemphasized cultural differences which in turn reinforce deficit views of minoritized groups (Causadiaz et al., 2018).

Aim 1 – Cultural Identity Dimensions’ Associations with Academic and Psychosocial Outcomes

The current study sought to examine the associations between each identity domain’s (i.e., FGCS, ERI, USI) dimensions including exploration, resolution, and affirmation with positive psychosocial adjustment (i.e., self-esteem, satisfaction with life, and psychological well-being) and academic achievement (i.e., GPA). In terms of positive psychosocial outcomes, the hypotheses were largely supported. As hypothesized, resolution (i.e., identity process in which individuals ascribe meaning to their group membership) and affirmation (i.e., identity content regarding individual’s positive feelings toward group membership) across all identity domains were positively and significantly associated with positive psychosocial adjustment, with the exception of two paths (i.e., ERI affirmation with satisfaction with life, and ERI resolution with psychological well-being). A strong understanding, or resolution, of one’s ERI may prompt greater satisfaction by tying them to the broader cultural roots associated with that identity domain, however, such an understanding may not necessarily serve as a source of resilience for promoting adaptive functioning, or psychological well-being, in the face of historical marginalization (McCluney et al., 2020). Further, although positive feelings toward ERI, or

affirmation, may prompt adaptive functioning as a form of resistance coping, it may not prompt satisfaction with life, as individuals can differ in the degree to which they are committed to their identity. Indeed, Meca et al. (2023c) differentiated between a Diffused Positive (i.e., high affirmation, low resolution) profile and a Developed Positive (i.e., high affirmation, high resolution) profile, with the latter exhibiting substantially stronger adjustment. Despite these two insignificant findings, the rest of the significant paths support the proposed integrative intersectional cultural identity capital framework, which posits that these identity dimensions can serve as cultural wealth assets to FGCS.

Conversely, exploration (i.e., identity process in which individuals examine different identity alternatives) across all domains were not significantly associated with positive psychosocial adjustment, with the exception of two paths (i.e., USI exploration with self-esteem, and USI exploration with psychological well-being). The insignificant findings are largely consistent with previous research (Allison et al., 2023b; Meca et al., 2023b), indicating that simply exploring one's cultural identity may not be enough to influence better well-being, but that one must have resolved and/or have positive feelings toward their identity. On the other hand, previous research has also found positive associations between USI exploration and well-being (Rodil et al., 2022). The positive associations from the current study may be due to successful social-class bicultural identity integration (SES-BII), or the ability to harmonize working- and middle-class cultures that have been deep-rooted in U.S. higher education (Chang et al., 2020). To this end, as students are exploring what it means to be American, they may also be internalizing different social classes that are often promoted as American cultural ideals (Stephens et al., 2014), which could influence positive well-being. Future research is necessary

to further understand the mechanisms between USI exploration and positive psychosocial adjustment among FGCS.

In contrast, only one of the hypotheses for academic achievement was partially supported. To this end, the association between FGCS identity affirmation with academic achievement was the only significant finding to emerge for this outcome. These findings are consistent with previous research, such that FGCS have reported that positive feelings toward being a FGCS assist in college motivation and persistence (Gray et al., 2018; Havlik et al., 2020), as well as overall well-being (Allison et al., 2023b). The lack of significant findings between the remaining cultural identity dimensions and academic achievement may be due to the measurement of GPA. The current study utilized self-reported GPA, rather than GPA obtained from institutional records, which may result in self-reporting biases. On the other hand, it may be that cultural identity dimensions are related to other outcomes that have been found to be positively correlated with academic achievement such as academic engagement, motivation, and self-efficacy (Tindle et al., 2022).

Aim 2 – Ethnic-Racial Group Differences in Cultural Identity Dimensions’ Associations with Academic and Psychosocial Outcomes

Further, the current study sought to examine if there were differences across ethnic-racial groups for the relationships between cultural identity dimensions with academic achievement and positive psychosocial adjustment. Prior research has indicated that ethnic-racial minoritized students report significantly different mean levels of ERI (Umaña-Taylor et al., 2004), USI (Martinez-Fuentes et al., 2021), and FGCS identity (Allison et al., 2023b) compared to White students. Despite prior mean-level differences in cultural identity dimensions, there have been mixed findings on the ethnic-racial differences for ERI and USI dimensions’ associations with

adjustment, such that one study has revealed significant differences across ethnic-racial groups (Rodil et al., 2022), whereas other studies did not find any significant ethnic-racial group differences (Allison et al., 2023b; Martinez-Fuentes et al., 2021; Schwartz et al., 2009). Further, no prior research has examined ethnic-racial differences for ERI and USI dimensions' associations with academic outcomes or FGCS dimensions' associations with academic or psychosocial adjustment. Finally, prior research has primarily focused on general college student populations rather than specific ones comprised of FGCS. As such, no hypotheses were made for this aim.

There were no significant ethnic-racial differences in the relationships between cultural identity dimensions with academic and positive psychosocial outcomes. The findings from the current study provide evidence that despite possible mean-level differences in cultural identity dimensions, associations between cultural identity dimensions with academic achievement and psychosocial outcomes are similar across Black and White FGCS. Moreover, these findings contrast with a previous study that did find differences in associations between ERI and USI with psychosocial outcomes among a sample of Black and White college students (Rodil et al., 2022). The differences in findings may be due to the fact that the current study also included FGCS identity and/or utilized a sample comprised of only college students who identify as FGCS, whereas Rodil et al. (2022) was comprised of a general sample of Black and White college students. Nevertheless, given the mixed findings, future research should seek to further examine ethnic-racial group differences in the associations between cultural identity dimensions with academic outcomes and psychosocial adjustment.

Aim 3 – Cultural Identity Profiles

Despite the importance of the variable-centered findings from aims 1 and 2, these findings alone can perpetuate stereotypes of homogeneity for marginalized groups such as FGCS (Buchanan et al., 2021). For instance, social science research has typically examined cultural identity dimensions among separate ethnic-racial groups, assuming that individuals within these groups will have the same levels of cultural identity. In contrast, person-centered approaches can assist in highlighting differences within these diverse populations. For example, previous studies have examined unique configuration profiles, finding diverse degrees of cultural identity within ethnic-racial groups at the individual level (Cheon et al., 2020; Meca et al., 2022; Wantchekon & Umaña-Taylor, 2021). As such, latent profile analyses (LPA) were conducted for not only the full sample, but also for the Black and White subsamples to get a comprehensive view of heterogeneity across these diverse groups. The hypothesis for the full sample was largely supported with an identified 3-profile solution including a Diffused profile, a Negative Moratorium profile, and a Developed profile. These profiles are largely consistent with cultural profiles identified in previous research (Cheon et al., 2020; Meca et al., 2022; Wantchekon & Umaña-Taylor, 2021). Interestingly, across all three full sample profiles in the current study, ERI was the most predominant identity domain. This may be due to the fact that ERI can be recognized visually for many, although not all, whereas FGCS and U.S. identity statuses are something that must be disclosed to others. Thus, ERI may be inherently more salient or central to individuals compared to USI and FGCS identity.

Similar to the full sample, a 3-profile solution emerged for the Black subsample including a Diffused profile, a Diffused Negative profile, and a Developed profile. Again, the identified profiles are fairly consistent with previous research (Cheon et al., 2020; Meca et al., 2022;

Wantchekon & Umaña-Taylor, 2021). The most distinguished finding from the Black subsample profiles was the considerably low ERI affirmation that emerged in the Diffused Negative profile. These findings are consistent with previous research indicating that even if Black FGCS have not fully explored or resolved what their ERI means to them, they can have negative feelings or emotions regarding their ethnic-racial group membership (Wantchekon & Umaña-Taylor, 2021). Although the Diffused profile was the smallest profile in terms of group membership ($n = 21$, 11%), ERI affirmation was lower than any other dimension across all profiles and samples, being two standard deviations below the mean. Low ERI affirmation, or rejection of one's ethnic racial group, may be due to internalized racism. Indeed, Cross and Vandiver's (2001) expanded Nigrescence theory of Black racial identity posits that Black individuals who have low racial identity salience may experience a *pre-encounter* stage which can include a *miseducation* attitude where they internalize negative stereotypes associated with being Black or a *self-hatred* attitude which is a more extreme version of negative internalization. Future research should seek to examine if low ERI influences or is influenced by the concurrent presence of low USI and FGCS identities.

In contrast to the full sample and Black subsample, a 4-profile solution was identified for the White subsample, including a Diffused profile, a Negative Moratorium profile, a Foreclosed profile, and an Undifferentiated profile. Unlike the full sample and Black subsample, the White subsample did not have an identified developed profile, a profile with all above average cultural identity dimensions. Another difference that emerged for the White subsample was an undifferentiated profile, or a profile with marginally above and below cultural identity dimensions across the board. These findings are aligned with previous research that has indicated that White students tend to report significantly lower mean levels of ERI (Umaña-Taylor et al.,

2004), USI (Martinez-Fuentes et al., 2021), and FGCS identity (Allison et al., 2023b) compared to ethnic-racial minoritized students. On the other hand, unlike the full sample and Black subsample, a Foreclosed profile was identified, a profile with below average ERI and FGCS identity exploration and above average USI exploration and ERI, USI, and FGCS resolution and affirmation. These findings indicate that while White FGCS may have resolved and feel good about what their cultural identity means to them, they may have not extensively thought about it. This is not surprising given that in addition to racial discrimination (McCluney et al., 2020), ethnic-racial minoritized students have reported facing “identity collapse,” in which others make assumptions about non-visible characteristics based on visible characteristics such as race (Gray et al., 2018). For instance, White FGCS have reported that others have assumed they are from middle/upper social class family, whereas ethnic-racial minoritized FGCS have reported others making assumptions that they are from a low social class background (Gray et al., 2018). Therefore, the lack of assumptions from others of a FG status may result in less experiences of being prompted to explore cultural identity for White FGCS compared to Black FGCS.

Despite the dimensional idiosyncrasies discovered within specific profiles within specific samples, there were notable similarities across domains for each sample. In other words, similar patterns emerged across all domains, highlighting that these domains are interconnected in complex ways. For instance, the negative moratorium profiles showed above average exploration and below average affirmation and resolution across several domains rather than for just one of the three. Interestingly, this is the second study to show these patterns across multiple cultural identity domains. Indeed, Meca et al. (2022) found similar patterns across three separate LPAs looking at ERI separately, USI separately, as well as a joint LPA of ERI and USI among a sample of Hispanic/Latinx college students. Given that these highly similar identity

configurations have held across several studies, cultural identity domains, and ethnic-racial groups, future research should seek to utilize mixed methods to determine if these cultural identity domains are so intertwined that they are unable to be analyzed separately with person-centered approaches. It should also be noted that the cultural identity profile solutions were heavily theory-driven decisions. Although model fit indices were examined and taken into account, they were not sufficient in making model retention decisions on alone. Indeed, the Lo, Mendell, and Rubin (LMR) likelihood ratio test did not reach necessary statistical significance for any of the sample solutions, whereas the bootstrap likelihood ratio test (BLRT) did. However, the former (i.e., LMR) is considered a conservative test, whilst the latter (i.e., BLRT) is usually regarded as a more liberal indication of model fit. Thus, the consideration of previous person-centered cultural identity studies was imperative in deciding the number of profile solutions (Cheon et al., 2020; Meca et al., 2022; Wantchekon & Umaña-Taylor, 2021).

Aim 4 – Cultural Identity Profiles’ Associations with Academic and Psychosocial Outcomes

Finally, the current study sought to examine associations between the identified cultural identity profiles with academic achievement and positive psychosocial outcomes. In terms of positive psychosocial adjustment, the hypotheses were largely supported. To this end, profiles with the highest levels of cultural identity dimensions reported the highest levels of self-esteem, satisfaction with life, and psychological well-being across the full sample, Black subsample, and White subsample. Further, profiles with the lowest levels of cultural identity dimensions reported the lowest levels of self-esteem, satisfaction with life, and psychological well-being. These findings are consistent with prior person-centered studies which have indicated that high cultural identity profiles are associated with more desirable adjustment, whereas low cultural identity

profiles are associated with poorer adjustment (Cheon et al., 2020; Meca et al., 2022; Wantchekon & Umaña-Taylor, 2021).

Notably, profiles with the highest levels of cultural identity had the highest levels of membership, whereas the profiles with the lowest levels of cultural identity had the lowest levels of membership, meaning majority of the sample indicated high overall psychosocial adjustment. Taken together, the findings from the current study provide further evidence that a well-rounded positive cultural identity development is related to better overall well-being. Moreover, these findings further support the proposed integrative intersectional cultural identity capital framework, which posits that the intersectional identities can serve as cultural wealth assets to FGCS.

On the other hand, the hypotheses for academic achievement were not supported. The current study did not consistently find higher academic achievement among high cultural identity profiles or lower academic achievement among low identity cultural profiles. These findings are unsurprising given the lack of significant associations found between cultural identity dimensions and academic achievement in current study's aim 1 analyses. As previously discussed, the lack of significant findings may be due to the measurement of GPA. Moreover, previous research that have examined associations between cultural identity profiles and academic achievement have been with adolescent samples rather than adult college students (Cheon et al., 2020; Wantchekon & Umaña-Taylor, 2021). However, further research is necessary to examine the relationships, or lack thereof, between academic achievement and cultural identity.

Limitations and Future Directions

The findings of the current study should be interpreted with several limitations in mind. First, it should be noted that data were collected amidst the global COVID-19 pandemic from March 2021 to September 2021. Given that there were heightened educational, health, personal, and political issues happening during this time frame, participants' cultural identity, academic achievement, and positive psychosocial adjustment may have been affected. As such, research should seek to replicate findings in a post-pandemic climate. Another limitation to note is that the current study utilized self-reported cumulative GPA scores rather than cumulative GPA from institutional records. Although prior research has indicated that self-reported GPA is often highly correlated with institutional records ($r = .90 - .96$), the extent of discrepancies can vary widely (Caskie et al., 2014; Kuncel et al., 2005). Therefore, findings regarding GPA should be interpreted with caution and future research should seek to utilize objective records of academic achievement from institutions rather than students to avoid potential self-report bias.

Additionally, future research should consider examining other important academic outcomes such as academic engagement, motivation, and self-efficacy, which have been found to be positively associated with academic achievement (Tindle et al., 2022). Another limitation to note is the cross-sectional design of the current study. Due to the cross-sectional nature of the study, the findings are limited in the ability to establish directionality or differences over time. Indeed, research has indicated that FGCS report increased feelings of visibility in terms of intersectional identity over time (Azpeitia et al., 2023). Future research should seek to collect longitudinal data in order to examine the direction and possible changes over time of cultural identity dimensions with academic outcomes and psychosocial adjustment.

Moreover, there are limitations regarding the generalizability of the current study's sample. First, in order to be sufficiently powered for multigroup analyses (i.e., $n < 100$), the current sample was comprised of FGCS who identified as Black, African American, Afro-Caribbean, Black African or Caucasian, White, European American, White European. As such, future research should aim to examine intersectional cultural identity capital among other ethnic-racial groups. It is also important to note that the current sample was primarily comprised of individuals who identify as female (80%), which is a different from the host institution and population of U.S. FGCS (approximately 60%). Future research should seek to obtain a more gender balanced sample. Third, the geographic location and institutional setting of the current study should be considered. The sample was selected from a racially diverse institution in the Southeast region of the U.S. As such, FGCS status and cultural identity development may be different for students in other institution types or regions of the U.S. Indeed, ethnic-racial minoritized FGCS have expressed experiencing negative culture shocks including "racial isolation, overt racism, and microaggressions" at predominantly White institutions (PWIs; McCoy, 2014, pp. 163-164). In contrast, FGCS may feel more comfortable and able to experience positive cultural identity development at more diverse institutions. Thus, future studies should aim to examine if findings are similar among samples in different institutional types and geographic locations.

Finally, the findings from the current study have implications for higher education professionals in supporting FGCS. To this end, positive identity intervention programs have been utilized to empower marginalized groups and college student populations to form a positive sense of self (Berman et al., 2008; Meca et al., 2014; Schwartz et al., 2005). The current study provides an integrative intersectional cultural identity capital framework for a multi-domain and

multi-dimensional approach to cultural identity when working with FGCS. Moreover, the findings provide evidence that the intersectional identities can serve as cultural wealth assets to FGCS to promote academic achievement and positive psychosocial adjustment. Thus, future research should aim to utilize the proposed framework to develop programming for positive identity interventions aimed at FGCS populations.

CHAPTER V

CONCLUSIONS

The current study extends the existing literature on first-generation college students (FGCS) by furthering understanding of FGCS cultural identity development's joint and unique effects on academic achievement and psychosocial adjustment. Although results indicated that cultural identity dimensions' associations with academic and psychosocial adjustment were similar across Black and White FGCS, unique identity profiles indicated differences in cultural identity development across ethnic-racial groups. Altogether, results were consistent with prior research that indicates that a positively developed cultural identity is associated with better overall adjustment. Additionally, the findings from the current study provide support for the integrative intersectional cultural identity capital framework, which posits that the intersectional identities can serve as cultural wealth assets to FGCS. Future research should seek to further examine the relationships between cultural identity and other academic outcomes among FGCS.

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APPENDIX A

ELIGIBILITY SCREENER

Thank you for your interest in the First-Generation College Student Identity Survey (FGCSIS) study. The current study examines the experiences of first-generation college students.

To determine eligibility, we have to ask you some questions. The screening is voluntary and confidential. You can refuse to answer any question or withdraw your participation at any time by exiting this window. Although some of the questions are of a sensitive nature, it is not anticipated that there will be any risks associated with participating in the screening, beyond the risks that you might experience in your reactions to everyday occurrences. Questions about the research can be directed to Dr. Glenn at cglenn@odu.edu, and questions about your rights as a research volunteer can be directed to Dr. Tancy Vandecar-Burdin, the current chair of the Institutional Review Board, at 757-683-3802, or the Old Dominion University Office of Research, at 757-683-3460.

Please click the button at the bottom right of your browser window to continue.

1. Are you a current college student?
 - a. Yes
 - b. No
2. What is your age?
3. How many parents/legal guardians did you have growing up?
 - a. 0 Parent/Legal Guardian
 - b. 1 Parent/Legal Guardian
 - c. 2 Parent/Legal Guardian
4. What descriptor would best be used for Parent/Guardian #1?
 - a. Mother
 - b. Father
 - c. Stepmother
 - d. Stepfather
 - e. Grandfather
 - f. Grandmother
 - g. Other
5. What descriptor would best be used for Parent/Guardian #2?
 - a. Mother
 - b. Father
 - c. Stepmother
 - d. Stepfather
 - e. Grandfather
 - f. Grandmother
 - g. Other
6. What is the highest level of education completed by your Parent/Guardian #1?

- a. Less than high school
 - b. High school degree
 - c. Some college; no degree
 - d. Associate's degree
 - e. Bachelor's degree
 - f. Master's degree
 - g. Doctoral degree
 - h. Other: _____
7. What is the highest level of education completed by your Parent/Guardian #2?
- a. Less than high school
 - b. High school degree
 - c. Some college; no degree
 - d. Associate's degree
 - e. Bachelor's degree
 - f. Master's degree
 - g. Doctoral degree
 - h. Other: _____
8. What is your gender?
- a. Male
 - b. Female
 - c. Trans (male-to-female)
 - d. Trans (female-to-male)
 - e. Non-binary
 - f. Do not wish to disclose
 - g. Other: _____
9. Your ethnicity (choose one):
- a. Black, African American, Afro-Caribbean, Black African, Other in this category.
 - b. Caucasian, White, European American, White European, Other in this category.
 - c. East Asian, Asian American, Amerasian, Asian-Caribbean, South Asian, South Asian American, of South Asian heritage, Other in this category.
 - d. Latino/a, Hispanic, Spanish, Latin American, of Spanish speaking- South American/Caribbean heritage, Other in this category.
 - e. Middle Eastern, Arab, Non-Black North African, Other in this category.
 - f. Biracial or Multiracial
 - g. Other (please specify): _____
10. Growing up, how much were finances an issue for you or your immediate family?
- a. Difficulty meeting my/my family's basic needs
 - b. Barely able to meet my/my family's basic needs
 - c. Once-in-a-while have difficulty covering my/my family's basic needs
 - d. No difficulty covering basic needs
 - e. Have extra money each month

For non-SONA Participants.

11. Please enter your email address to ensure your eligibility. To be eligible you must have a university/college email (.edu).

End of Survey**If they are eligible from SONA:**

Based on your responses, you are eligible to participate in our study. If you decide to participate, then you will be redirected the survey now. The survey will take approximately 60 minutes to complete and you can either select to receive 1 Sona research credit for completing it or be entered in a raffle for a \$50 gift card for every 1 in 50 participants (after verifying eligibility). Are you interested in participating in the First-Generation College Student Identity Survey (FGCSIS) study?

- Yes, I am interested
- No

If they are eligible from non-SONA:

Thanks for your response. Once we have determined your eligibility, we will email you a link to the survey.

If they select “No”, they will receive this message:

Thank you for your interest in our study and taking the time to answer our questions.

If they select “Yes, I am interested”, they will be directed to the separate study Qualtrics survey.

APPENDIX B

MEASURES

First-Generation College Student Identity Scale

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree

Affirmation Subscale

1. I feel negatively about being a first-generation college student.
2. I wish I was not a first-generation college student.
3. I am not happy with being a first-generation college student.
4. If I could choose, I would prefer to not be a first-generation college student.
5. I dislike being a first-generation college student.

Exploration Subscale

6. I have not participated in any activities that would teach me about being a first-generation college student.
7. I have attended events that have helped me learn more about being a first-generation college student.
8. I have read books/magazines/newspapers or other materials that have taught me about being a first-generation college student.
9. I have participated in activities that have exposed me to being a first-generation college student.
10. I have participated in activities that have taught me about being a first-generation college student.

Resolution Subscale

11. I am clear about what being a first-generation college student means to me.
12. I understand how I feel about being a first-generation college student.
13. I know what being a first-generation college student means to me.
14. I have a clear sense of what being a first-generation college student means to me.

Ethnic Identity Scale

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Affirmation Subscale

1. My feelings about my ethnicity are mostly negative.
2. I feel negatively about my ethnicity.
3. I wish I were of a different ethnicity.
4. I am not happy with my ethnicity.
5. If I could choose, I would prefer to be of a different ethnicity.
6. I dislike my ethnicity.

Exploration Subscale

7. I have not participated in any activities that would teach me about my ethnicity.
8. I have experienced things that reflect my ethnicity, such as eating food, listening to music, and watching movies.
9. I have attended events that have helped me learn more about my ethnicity.
10. I have read books/magazines/newspapers or other materials that have taught me about my ethnicity.
11. I have participated in activities that have exposed me to my ethnicity.
12. I have learned about my ethnicity by doing things such as reading (books, magazines, newspapers), searching the internet, or keeping up with current events.
13. I have participated in activities that have taught me about my ethnicity.

Resolution Subscale

14. I am clear about what my ethnicity means to me.
15. I understand how I feel about my ethnicity.
16. I know what my ethnicity means to me.
17. I have a clear sense of what my ethnicity means to me.

United States Identity Scale

1	2	3	4	5
Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree

Affirmation Subscale

1. My feelings about being American are mostly negative.
2. I feel negatively about being American.
3. I wish I was not American.
4. I am not happy with being American.
5. If I could choose, I would prefer to not be American.
6. I dislike being American.

Exploration Subscale

7. I have not participated in any activities that would teach me about the United States.
8. I have experienced things that reflect American culture, such as eating food, listening to music, and watching movies.
9. I have attended events that have helped me learn more about the United States.
10. I have read books/magazines/newspapers or other materials that have taught me about the United States.
11. I have participated in activities that have exposed me to American culture.
12. I have learned about the United States by doing things such as reading (books, magazines, newspapers), searching the internet, or keeping up with current events.
13. I have participated in activities that have taught me about the United States.

Resolution Subscale

14. I am clear about what being American means to me.
15. I understand how I feel about being American.
16. I know what being American means to me.
17. I have a clear sense of what being American means to me.

Satisfaction with Life Scale

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

Rosenberg Self-Esteem Scale

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

1. On the whole, I am satisfied with myself.
2. At times I think I am no good at all.
3. I feel that I have a number of good qualities.
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of.
6. I certainly feel useless at times.
7. I feel that I'm a person of worth, at least on an equal plane with others.
8. I wish I could have more respect for myself.

9. All in all, I am inclined to feel that I am a failure.
10. I take a positive attitude toward myself.

Scales for Psychological Well-Being

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree

1. I like most parts of my personality.
2. When I look at the story of my life, I am pleased with how things have turned out so far.
3. Some people wander aimlessly through life, but I am not one of them.
4. The demands of everyday life often get me down.
5. In many ways I feel disappointed about my achievements in life.
6. Maintaining close relationships has been difficult and frustrating for me.
7. I live life one day at a time and don't really think about the future.
8. In general, I feel I am in charge of the situation in which I live.
9. I am good at managing the responsibilities of daily life.
10. I sometimes feel as if I've done all there is to do in life.
11. For me, life has been a continuous process of learning, changing, and growth.
12. I think it is important to have new experiences that challenge how I think about myself and the world.
13. People would describe me as a giving person, willing to share my time with others.
14. I gave up trying to make big improvements or changes in my life a long time ago.
15. I tend to be influenced by people with strong opinions.
16. I have not experienced many warm and trusting relationships with others.
17. I have confidence in my own opinions, even if they are different from the way most other people think.
18. I judge myself by what I think is important, not by the values of what others think is important.

APPENDIX C
DEMOGRAPHICS

1. Are you a current college student?
 - a. Yes
 - b. No
2. What is your age?
3. How many parents/legal guardians did you have growing up?
 - a. 0 Parent/Legal Guardian
 - b. 1 Parent/Legal Guardian
 - c. 2 Parent/Legal Guardian
4. What descriptor would best be used for Parent/Guardian #1?
 - a. Mother
 - b. Father
 - c. Stepmother
 - d. Stepfather
 - e. Grandfather
 - f. Grandmother
 - g. Other
5. What descriptor would best be used for Parent/Guardian #2?
 - a. Mother
 - b. Father
 - c. Stepmother
 - d. Stepfather
 - e. Grandfather
 - f. Grandmother
 - g. Other
6. What is the highest level of education completed by your Parent/Guardian #1?
 - a. Less than high school
 - b. High school degree
 - c. Some college; no degree
 - d. Associate's degree
 - e. Bachelor's degree
 - f. Master's degree
 - g. Doctoral degree
 - h. Other: _____

7. What is the highest level of education completed by your Parent/Guardian #2?
- Less than high school
 - High school degree
 - Some college; no degree
 - Associate's degree
 - Bachelor's degree
 - Master's degree
 - Doctoral degree
 - Other: _____
8. What is your gender?
- Male
 - Female
 - Trans (male-to-female)
 - Trans (female-to-male)
 - Non-binary
 - Do not wish to disclose
 - Other: _____
9. Your ethnicity (choose one):
- Black, African American, Afro-Caribbean, Black African, Other in this category.
 - Caucasian, White, European American, White European, Other in this category.
 - East Asian, Asian American, Amerasian, Asian-Caribbean, South Asian, South Asian American, of South Asian heritage, Other in this category.
 - Latino/a, Hispanic, Spanish, Latin American, of Spanish speaking- South American/Caribbean heritage, Other in this category.
 - Middle Eastern, Arab, Non-Black North African, Other in this category.
 - Biracial or Multiracial
 - Other (please specify): _____
10. Growing up, how much were finances an issue for you or your immediate family?
- Difficulty meeting my/my family's basic needs
 - Barely able to meet my/my family's basic needs
 - Once-in-a-while have difficulty covering my/my family's basic needs
 - No difficulty covering basic needs
 - Have extra money each month
11. What is your major?

12. What is your current class standing?

- a. Freshmen
- b. Sophomore
- c. Junior
- d. Senior
- e. Graduate
- f. Other: _____

13. What is your student status?

- a. Full-time (12 or more credit hours)
- b. Part-time (less than 12 credit hours)

14. What is your cumulative GPA?

- a. Below 2.00
- b. 2.00-2.50
- c. 2.51-3.00
- d. 3.01-3.50
- e. 3.51-4.00

APPENDIX D

SONA RECRUITMENT POSTING

Study Name	First-Generation College Student Identity Survey (FGCSIS)
Abstract	This online study consists of a computerized survey to determine eligibility to complete a survey that will be examining the experiences of first-generation college students.
Description	<p>This online study consists of a computerized survey to determine eligibility to complete a survey that will be examining the experiences of first-generation college students. The purpose of this study is to adapt a scale to capture first-generation college student identity. The knowledge gained from this study will help us gain insight that we can better understand and be able to support the experiences of first-generation college students.</p> <p>The computerized survey takes approximately 30- 60 minutes. To participate, you must be a college student whose parent(s)/legal guardian(s) have not completed a bachelor's degree and over the age of 18.</p>
Prescreen Restrictions	No
Duration	30-60 minutes
Credits	1.0 Credits
Researcher	Catherine Glenn
Principal Investigator	Catherine Glenn
Participant Sign-Up Deadline	24 hours before the study is to occur
Participant Cancellation Deadline	24 hours before the study is to occur

APPENDIX E

EMAIL RECRUITMENT

Hello first-generation college students,

We are researchers from Old Dominion University, and we are conducting a study to understand the experiences of current first-generation college students. The information from this survey will be used to help us better understand and be able to support the experiences of first-generation college students.

Based on your responses, you are eligible to participate in our study. The survey will take approximately 60 minutes to complete, and you will be entered in a raffle for a \$50 gift card for every 1 in 50 participants (after verifying eligibility). Your responses will be entirely anonymous and thus, it will be impossible to link your responses back to you. Neither your name nor any identifying information will appear in this survey.

Your answers will help us further understand and be able to support the experiences of first-generation college students. To view the survey and be entered into a raffle, please go to [insert link] and complete the survey. Once you are finished, you will be directed to another survey asking you to input your email for the raffle. If you have any questions, please feel free to contact us via email at kalli007@odu.edu Thank you very much for your consideration and for participating in this survey.

Sincerely,

Kelsie Allison
Health Psychology Graduate Student
Old Dominion University

Dr. Catherine Glenn
Assistant Professor
Old Dominion University

APPENDIX F

NOTIFICATION STATEMENT

OLD DOMINION UNIVERSITY

Project Title: First-Generation College Student Identity Survey (FGCSIS)

Introduction: The purposes of this form is to give you information that may affect your decision whether to say YES or NO to participation in this research.

Principal Investigators:

- Catherine Glenn, Ph.D., Assistant Professor, Department of Psychology, Old Dominion University.

Co-Investigators:

- Kelsie Allison, B.A., Graduate Student, College of Sciences, Department of Psychology.

Study Personnel:

- Taylor Webb, Undergraduate Research Assistant, Team on Acculturation, Risk, and Development of Identity and Self (TARDIS), Old Dominion University.
- Brittani Garcia, Undergraduate Research Assistant, Team on Acculturation, Risk, and Development of Identity and Self (TARDIS), Old Dominion University.
- Isis Cowan, Undergraduate Research Assistant, Team on Acculturation, Risk, and Development of Identity and Self (TARDIS), Old Dominion University.

Description of Research Study: The purpose of this study is to adapt a scale to capture first-generation college student identity. The knowledge gained from this study will help us gain insight that we can better understand and be able to support the experiences of first-generation college students.

Neither your name nor any identifying information will appear in this survey. If you say YES to participating in this study, then your participation will last approximately 30-60 minutes. Approximately 800 students will be participating in this study.

Exclusionary Criteria: To participate, you must be a current college student whose parent(s)/legal guardian(s) have not completed a bachelor's degree or higher and at least 18 years old. The aggregated results of this study may be used in reports, presentations, and publications, but your responses cannot be traced back to you.

Cost and Payments: If you decide to participate in this study, you will receive **one credit hour** points via SONA Research Systems for your participation **or** you will be entered in a raffle for a \$50 gift card. We advise before completing the survey, that you check with your course instructors as to whether or not any additional course credit will be given for completing the

survey. Equivalent credits may be obtained in other ways. You do not have to participate in this study, or any study, in order to obtain this credit.

Risks and/or discomforts: There are no known long-term risks to you as a participant in this study. The questionnaires used in the study have been used in other studies involving adults of various ages and ethnicities. You may however experience discomfort or distress at answering some of the questions. If you feel discomfort at any time, you may skip any question that you do not want to answer. You also have the right to withdraw from the study entirely, and you will not lose any benefits to which you would otherwise be entitled.

Benefits: There are no specific benefits you may reasonably encounter from participating in this study, however your help will serve to aid us in understanding issues important to college students. Specifically, participation in the current study has several potential implications for future research. Specifically, the validating the identity measure will be instrumental in providing a better and more comprehensive operationalization of identity development among first-generation college students.

New Information: If the researchers find new information during this study that would reasonably change your decision about participating, then they will give it to you.

Confidentiality: Your responses will be entirely anonymous and thus, it will be impossible to link your responses back to you. Your information will be stored using a study code number that cannot be used to identify you. Research records will be stored on a secure network drive or password-protected computer, and only the research team will have access to these records.

Withdrawal Privilege: It is OK for you to say NO. Even if you say YES now, you are free to say NO later, and withdraw from the study at any time. Your decision will not affect your relationship with Old Dominion University, or otherwise cause a loss of benefits to which you might otherwise be entitled. The researchers reserve the right to withdraw your participation in this study, at any time, if they observe potential problems with your continued participation.

Voluntary Consent: By clicking the next button, you are saying several things. You are saying that you have read this form or have had it read to you, that you are satisfied that you understand this form, the research study, and its risks and benefits, and that you are at least 18 years of age. The researchers should have answered any questions you may have had about the research. If you have any questions later on, then the researchers should be able to answer them:

Catherine Glenn, Ph.D.
Responsible Project Investigator
Department of Psychology, MGB 134B
Email: cglenn@odu.edu

Kelsie Allison, B.A.
Co-Investigator
Department of Psychology
Email: kall007@odu.edu

I have read and understood the information above and volunteer to participate in this study.

- Yes, I have read and understood the information above and volunteer to participate in this study.
- No, I do not volunteer to participate in this study.

VITA

Kelsie K. Allison

Department of Psychology, 250 Mills Godwin Sciences Building, Norfolk, VA 23529

EDUCATION

Ph.D. Health Psychology, Old Dominion University	Expected May 2024
M.S. Psychology, Old Dominion University	May 2022
B.A. Christopher Newport University, Newport News, VA Major: Psychology // Minor: Literature	2015 – 2018

RESEARCH EXPERIENCE

Graduate Research Assistant	Fall 2019 – Present
Team on Acculturation, Risk, and the Development of Identity and Self (TARDIS), Dr. Alan Meca, The University of Texas at San Antonio, San Antonio, TX	

Graduate Research Assistant	Spring 2021 – Present
Youth Risk and Resilience Lab (YR2), Dr. Catherine Glenn, Old Dominion University, Norfolk, VA	

Assessment Research Intern	June 2022 – August 2022
National Board for Professional Teaching Standards, Arlington, VA, Supervisor: Carol Ezzelle	

Assisted lead psychometrician with cleaning, managing, querying, and analyzing large data sets to further understanding, report findings, and suggest recommendations to alleviate attrition rates for National Board certification. Developed a research brief on findings and suggestions and presented to the National Board, Technical Advisory Group, and Pearson members.

SELECTED PUBLICATIONS

Allison, K. K., Meca, A., Perez, T., & Veniegas, T. (2023). Validation and measurement invariance of a first-generation college student identity scale. *Journal of Diversity in Higher Education*.

Allison, K. K., Meca, A., Cruz, B., Wright, A. & Veniegas, T. (2023). A brief report on measurement invariance for the Ethnic Identity Scale among college-attending emerging adults. *Emerging Adulthood*.

Meca, A., Cruz, B., Veniegas, T. K., **Allison, K. K.,** Santibanez, L., & Gonzales-Backen, M. (2023). Cultural identity configurations: A latent profile analysis of ethnic/racial and U.S. identity process and content. *Journal of Youth and Adolescence*.