Beating the Odds

How Resilience is Built and Fostered in First-Generation, Low-Income Students of Color

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Abstract

This mixed-methods study utilizes surveys ($N = 60$) and interviews ($N = 14$) to examine the relationship between Active Coping, General Health, and Resilience among first-generation, low-income (FGLI) students of color in the United States. Guided by the John Henryism Theory, it was hypothesized that Active Coping/Resilience would have an inverse relationship with General Health— higher Active Coping/Resilience would negatively correlate to General Health. This is due to the hidden psychological and physiological costs of persistent resilience and striving while facing various adversities. However, results revealed statistically significant positive correlations among all three variables. This suggests that Active Coping/Resilience may serve as protective factors rather than detrimental to General Health. Alternatively, General Health may create conditions that support Active Coping/Resilience. Interviews revealed nuances and complexities reflecting five major themes: (1) Out of Place: Navigating a Culture Not Built for Us, (2) Never Enough: Overworking & Overachievement, (3) Between Obligation & Autonomy: Complex Role of Family, (4) It Takes a Village: Strength in Shared Identities, (5) Redefining Resilience: Survival to Self-Pride. Each major theme contained sub-themes that captured the full scope of diverse experiences from the interviews. Integrating the data with a convergent mixed-methods approach utilizing a participatory framework expanded the understanding of the paradoxical nature of resilience and the positive correlations found. Furthermore, it underscored the need for a strengths-based approach in supporting FGLI students of color, highlighting personal and institutional supports, and the need for systemic changes to foster well-being and success.

Keywords: first-genertion, low-income, students of color, John Henryism Theory, resilience, coping, strengths-based lens

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Table of Contents

Introduction

According to the U.S. Census (2022), 37.9 million people live in poverty, and 56% are people of color; however, people of color make up only 41.5% of the total U.S. population. This disproportionate percentage of people of color comes with a myriad of health impacts. These health challenges are due to the high risks associated with low socioeconomic status (SES) and racial discrimination. The Supplemental Poverty Measure (SPM) utilized by the U.S. Census to measure poverty, found that the child poverty rate more than doubled from 5.2% in 2021 to 12.4% in 2022. Due to the high number of associated stressors for vulnerable populations of low-income, youth of color, these youth face higher risks for adverse childhood experiences (ACEs) (Grummitt et al., 2021; Kalmakis et al., 2015; Oh et al., 2018; Petruccelli et al., 2019).

Adverse childhood experiences (ACEs) are estimated to affect 60% of the U.S. population. ACEs are associated with approximately 440,000 deaths annually due to various physical and mental health outcomes (Grummitt et al., 2021; Kalmakis et al., 2015). These deaths were found through associations and attributable to childhood adversities, with leading causes due to heart disease (219,470), cancer (82,888), chronic lower respiratory disease (66,702), and more than one in three suicide attempts (Grummitt et al., 2021). Adverse childhood experiences show associated delays in psychological and physiological development impacting brain development, multiple body systems, and the foundations of health (Grummitt et al., 2021; Kalmakis et al., 2015; Oh et al., 2018; Petruccelli et al., 2019). Additionally, ACEs have a cumulative effect; therefore, the more an individual experiences adverse events, the more likely they are at risk for continued detrimental health consequences beyond childhood (Grummitt et al., 2021; Kalmakis et al., 2015; Oh et al., 2018; Petruccelli et al., 2019).

Much of the existing literature on vulnerable populations of low-income, youth of color

focuses on the associated challenges and risks associated with their environments and lived experiences. However, this study avoids a deficit lens. This study will explore how vulnerable populations of low-income, youth of color— specifically first-generation, low-income (FGLI) students of color— persist and become resilient in the face of adversities by utilizing a strengths-based approach and resiliency paradigm (Zimmerman, 2013) in the context of higher education.

Given the current political climate during the time of the study, students, but particularly FGLI students of color, face incredible odds. At a time when critical funding, resources, and supports are being cut from institutions and systems, students with marginalized identities are facing further, immeasurable challenges in the pursuit of higher education. Understanding the essence of resilience as well as the strategies and tools utilized to succeed in FGLI students of color offers some beginning roadmap for how to help maintain these students' presence, and is translatable to other marginalized groups, on campus, to ensure success for their future— opportunities to succeed and thrive.

Author Positionality

Before I continue, it is critical that I acknowledge my own positionality and any assumptions I bring to this research. When trying to figure out what I wanted to do for my Master's thesis research project, I reflected on what questions I had and the populations I was passionate about. Shortly after I was born in Oslo, Norway, my family immigrated to a small town in Texas, where I was one of about three Asian families in a town of 3,000 people. I lacked a community and a feeling of belonging as I dealt with daily microaggressions and racism from peers, teachers, and the community that surrounded me. When I started my undergraduate career, I faced a new plethora of struggles as a first-generation, low-income (FGLI) student of color.

Thus, I have many common experiences with participants in my study. However, like the interviewees in the study, as I became involved with the FGLI community, I sought strength from peers with similar backgrounds and upbringings.

When I was brainstorming research questions, I could not help but think of my community, specifically my close friends. Many were in top leadership positions and involved in multiple organizations, extracurriculars, and working while juggling academics. While brainstorming and creating a mind map of various interests of mine, it led me to question how resilience is fostered in FGLI students of color, and at what cost. When I was growing up, I thought about race frequently as I navigated blatant racism, and that burden transformed into issues with a lack of resources and support as an FGLI student. This is an area I am intimately close to and passionate about. Being so close to my topic and study may come with biases and assumptions.

To mitigate bias, I engaged in ongoing reflexivity and critically examined how my background informs my analysis. Throughout the entire process from drafting the research questions, interview preparation, to analyzing and interpreting interviews, I met with my advisor and academic peers via bi-weekly workshops to remain open-minded, objective, and critical in my analysis. Furthermore, while many interviewees' experiences were common to mine, many differed, reminding me of the diversity within FGLI experiences, emphasizing that this population is not a monolith. The variability within the sample could be due to differences in cultural upbringing affecting how individuals adapt, their emotional regulation capacity, and experiences and expressions of emotions. However, I continuously reflected on my own positionality to ensure that all voices were amplified equally. I aimed to approach this study with both empathy and critical inquiry with the goal of contributing to a strengths-based

understanding of FGLI students of color.

Literature Review

Resilience

Resilience can mean many different things, but this study defines resilience as the ability to adapt successfully in the face of stress and adversities (Ahern et al., 2006; Brody et al., 2013; Herrman et al., 2011; Wu et al., 2013). Specifically, the focus is on resilience in the face of contextual adversities and how low-income, youth of color "beat the odds" while facing the associated risks with low socioeconomic status and living as a person of color (Brody et al., 2013).

There is a multitude of factors that contribute to an individual's resilience— personality traits, biological factors, environmental-systemic factors, and epigenetics (Herrman et al., 2011; Wu et al., 2013). Personality traits such as openness, extraversion, self-esteem, self-regulation, cognitive appraisal, and optimism were common traits found in individuals exemplifying resilience. As for the interaction of genetics and the environment, epigenetics has much more complexity and nuance that are harder to pinpoint because of individual differences in biology and experiences impacting brain structure, development, and genetics (Herrman et al., 2011; Miller, 2016).

Low-Income Risks

Low-income youth face a multitude of challenges associated with low socioeconomic status (SES), impacting their mental, emotional, and behavioral health that affect all aspects of their lives (Yoshikawa et al., 2012; Khullar & Chokshi, 2018; Truesdale & Jencks, 2016). Khullar & Chokshi (2018) found that low-income adults are five times as likely to report being in poor or fair health. Low-income youth suffer from issues related to nutrition, environmental

exposure, chronic illness, academic delays, and not having their needs met (Khullar & Chokshi, 2018). Additionally, low-income individuals have less access to resources, healthcare, and quality of life, resulting in associated risk factors— smoking, obesity, substance use, etc.

Orthner et al. (2005) found that in the face of limited resources and adversities, low-income families displayed resilience and creativity in building various strategies to overcome poor life conditions in a study where they interviewed 379 low-income single mothers. Furthermore, Orthner et al. (2005) applied a strengths-based approach and linked positive communication, problem-solving and conflict management, companionship, cohesion around values, and social support as key factors linked to positive outcomes.

Racial Stress

The constructs of "race" and "ethnicity" have played a huge role in oppressing people of color in the U.S. (Carter et al., 2007; Kirkinis et al., 2018). Race is defined "as a social construction in which people are grouped and ranked based on their skin color and physical features" (Carter et al., 2007, p. 1). The manifestation of social construction can be examined through racial discrimination, which is the use of privilege and power against groups deemed inferior by individuals, institutions, and systems (Carter et al., 2007; Kirkinis et al., 2018). Racial discrimination exists and shows up in every system, from personal, community, organizations, and institutions, to government systems that dictate policies and laws, which rings more true than ever with the current political climate during the time of this study. The persistence of racial discrimination is reflected in the unequal outcomes in social systems and organizations. In a 2007 report, Carter et al. (2007) found:

> White males make up 33% of the U.S. population yet occupy 80-90% of the tenured positions in higher education, 80% of the U.S. House of Representatives, 99% of the U.S.

> Senate, 92% of the Forbes 400 executive CEO-level positions, 90% of public school superintendents, 99.9% of athletic team owners, and 100% of U.S. presidents (Carter et al., 2007, p. 24).

While things have improved a bit in recent years, White people, particularly men, still make up the majority of various organizations and systems: White people make up 74% of voting members in the U.S. Congress, with people of color holding 133 out of 434 seats in the House and 16 out of 100 senators (Schaeffer, 2025). As for academia, only 26% of tenure-track faculty are racial or ethnic minorities (Schwartz, 2024). Lastly, there has only been one person of color as the U.S. President, and the rest have been White men.

Kirkinis et al. (2021) found that "70% of the trauma symptomatology outcomes were statistically significantly associated with racial discrimination" (p. 1). People of color in the U.S. have been targets of racism due to the broken system that continuously oppress people of color (e.g. slavery, Jim Crow Laws, Japanese internment camps, police brutality, mass incarceration, disproportionate health outcomes, educational disparities, housing inequalities, etc.) (Kirkinis et al., 2021). Because of the barriers in the form of the lack of access to opportunities, support, and resources, people of color have higher rates of traumatic stress in response to significant life stressors compared to the general population (Kirkinis et al., 2021). There is a disparity when looking at responses to stressful events, with White people tending to report less stress associated with life events than people of color (Kirkinis et al., 2021); thus, as mentioned earlier, with adverse experiences come associated health risks. Several studies have found a link between race-related stress and anxiety disorders, cardiovascular reactivity, poor immunological functioning, and various facets of sleep disturbances (Anderson et al., 2019).

Theory of Race-Based Traumatic Stress

Carter et al. (2007) argue that race-based stress is a unique type of stress according to the Theory of Race-Based Traumatic Stress. Research has primarily focused on the consequences and effects of racism but has not considered racism as a direct factor of particular outcomes (Carter et al., 2007). Researchers and social science in general have vastly undermined the impact of race-based stressors in the past. For example, trauma researchers often do not focus on racism as a factor in the development of posttraumatic stress disorder (PTSD) after exposure, yet people of color have elevated levels of PTSD not fully explained by the traumatic event or other factors (Carter et al., 2007).

Due to the various forms and levels of racism people of color face, they may be more vulnerable to lifelong exposure to stressors, resulting in higher rates of poor physical and mental health (Carter et al., 2007). Similar to the associated health impacts of adverse childhood experiences (ACEs), Carter et al. (2007) found that racial stressors produced outcomes such as high blood pressure, risk for heart disease, and increased vulnerability to a variety of negative health outcomes. In an academic setting, Torsney et al. (2023) found that Black students attending a predominantly White institution (PWI) showed higher levels of diastolic blood pressure resulting from higher levels of coping to overcome racial discrimination. Carter et al. (2007) encourage and recommend that research account for race-based stress because of the critical role racism plays on people of color and their health outcomes.

Racial Socialization

To prepare and combat the detrimental effects of racism, parents will engage in ethnic and racial socialization (Hughes et al., 2006). The process of ethnic and racial socialization includes parents of color passing down messages both implicit and explicit about the meaning of

one's race in broader societal contexts, preparation for bias, instilling a sense of racial pride, etc. (Hughes et al., 2006; Tang et al., 2016). These important conversations and lessons between parents and children of color have been found to increase adolescents' perception of greater structural discrimination and success-oriented centrality (Tang et al., 2016). A greater sense of pride and value in culture and heritage is associated with better academic attitudes and perceptions while mitigating processes that undermine academic achievement. Anderson et al. (2019) found that racial socialization is associated with a range of well-being indicators—psychosocial, physiological, academic, and identity.

Racial and ethnic socialization plays a key protective role in the lives of youth of color. By engaging in racial and ethnic socialization, parents help their children make sense of the many complexities, dynamics, and subtleties of what it means to exist as a person of color (Anderson et al., 2019; Hughes et al., 2006; Tang et al., 2016). Thus, racial and ethnic socialization acts as a protective factor because it prepares youth of color for what to expect when they face racial discrimination from individuals to systems. Additionally, it instills racial pride in their identity to reinforce their self-worth and confidence while navigating a society that places more value, privilege, and power on White people.

Intersectionality

The intersectionality of both being low-income and a person of color creates a complex identity, thus intersecting challenges, risks, and vulnerabilities associated with being a low-income person of color (Castro-Ramirez et al., 2021; Sacredo et al., 2015; Saatcioglu & Corus, 2014). Sacredo et al. (2015) describe the intersectionality of class and race as a "metaphorical dirty dance because one influences another always moving in concert with the other" (p. 1). Systems of oppression interplay, creating inequities in access to fundamental

resources and support, placing multiple layers of obstacles vital to improving one's well-being—safe home, consistent job, and schooling for youth (Castro-Ramirez et al., 2021). Aspects of life that are impacted by systemic oppression include financial deprivation, inadequate healthcare, lack of access to resources, and social stigmatization (Saatcioglu & Corus, 2014).

Castro-Ramirez et al. (2021) found that low-income youth are more likely to have strong, frequent exposure to major traumatic events, and Black children, in particular, were 45% more likely than White children to be exposed to frightening/life-threatening experiences. The interaction between class and race is evident in numerous studies, so to truly study low-income people of color, the unique challenges of intersecting identities must be considered to have a holistic approach to create effective interventions (Carter et al., 2007; Castro-Ramirez et al., 2021; Sacredo et al., 2015; Saatcioglu & Corus, 2014). Although many low-income people of color suffer detrimental consequences from systemic oppression, several studies found a remarkable number of youth persist and exemplify incredible resilience in the face of adversity (Brody et al., 2013; Flaskerud, 2012).

First-Generation, Low-Income (FGLI) Students of Color

This study is targeting first-generation, low-income (FGLI) students of color because they have intersecting identities and thus lived experiences of growing up as a low-income youth of color. Additionally, the criteria of a first-generation college student are due to the fact that they make up around 50% of all college students, and a disproportionate amount are students of color and from low-income backgrounds (Hébert, 2017; Means et al., 2017; RTI International, 2023). Additionally, Torsney et al. (2023) found that first-generation students have lower family incomes compared to their continuing-generation counterparts. Another question of interest is to see how an individual's resilience translates while navigating higher education institutions.

Although many definitions exist, this study is utilizing Whitley et al.'s (2018) definition of a first-generation college student— someone who is the first in their family to obtain a degree at a four-year institution.

First-generation, low-income (FGLI) college students of color face many challenges while navigating systemic oppression, such as classism, racism, and lack of support and resources (Means et al., 2017). As a result, FGLI students were nearly four times more likely to leave higher education after the first year, work during college thus have less time for academic work and extracurriculars, are less likely to receive financial support from parents, and are less academically prepared, etc. (Engle & Tinto, 2008). Additionally, Engle & Tinto (2008) found that the more risk factors a student has, the less likely they are to graduate with a bachelor's degree. However, drawing from my personal experiences and what I have seen, I have seen first-generation, low-income (FGLI) students of color persevere and become leaders, mentors, and scholars at their universities. This made me question why so much literature on these populations applies a deficit lens, highlighting the risks with these "vulnerable" populations rather than showcasing their strength and resilience.

Theoretical Framework

John Henryism Theory

The John Henryism Theory is named after a 19th-century American folk hero who died of exhaustion after successfully defeating a steam-powered drill in a steel-driving contest (James et al., 1983; Torsney et al., 2022). The John Henryism Theory posits that while stacked against adversities, a remarkable number of Black youth evince high levels of self-regulation, academic achievement, and psychological adjustment (Brody et al., 2013). James et al. (1983) conceptualize John Henryism as an "individual's self-perception that he can meet the demands of

his environment through hard work and determination" (p. 263). Thus, these youth have been deemed resilient because of their competence in the face of contextual adversities, enabling them to "beat the odds" (Brody et al., 2013). However, the cost of resilience can take a toll on the body— psychologically and physiologically.

Brody et al. (2013) found that highly self-controlled/competent Black youth living with high levels of low socioeconomic-related risks faced high levels of physiological stress during young adulthood. Flaskerud (2012) cited that those who scored high on the John Henryism measure were found to have significantly higher diastolic blood pressure. But there was a difference between the intersecting identities of race and class. James et al. (1983) found that Black individuals with low socioeconomic status were three times as likely to be hypertensive compared to their higher socioeconomic counterparts; the study's findings were not supported among White individuals with differing socioeconomic status (SES). Additionally, hypertension prevalence declined with increasing socioeconomic status (29.4%, 26.2%, and 20.5% for low, medium, and high SES, respectively) (Flaskerud, 2012). This shows evidence of the impact of the intersectionality of race and class on an individual's experiences and health. While these resilient youth display external behaviors associated with thriving— high academic achievement, determination, and self-control— they may silently endure significant, undetectable wear and tear to their health (Brody et al., 2013; Flaskerud, 2012). Torsney et al. (2022) describe the John Henryism theory as a paradox because success may come with maladaptive stress that leads to a plethora of negative health outcomes.

Biological Lens

Applying the biological theory can help inform and explain how genetics and environmental factors interact with one another to create individual differences, psychological

traits, susceptibility to mental illnesses, and impacts on the stress response systems (Miller, 2016). Gene interaction with the environment is the reason for gene expression— epigenetics; the gene itself is not changing, but is either expressed or suppressed. Using the biological lens challenges the dichotomy between nature and nurture by highlighting the complex interaction between them. The biological lens emphasizes that nature and nurture are not separate or opposing forces, but rather, interconnected and interact with each other in intricate ways to shape people and individual differences.

Epigenetics

Epigenetics is a lifelong process, and there are vulnerable periods during different stages of development where an individual is more susceptible to environmental interactions with their genes. Earlier stages of development— youth— are more prone to epigenetic changes. Therefore, low-income youth who live in vulnerable environments near factories, landfills, intersections, hazardous infrastructures, food deserts, etc. (Lefmann, 2018) are at higher risk.

Environmental factors can go as far as becoming embedded to cause epigenetic changes, impact development, and modify brain functioning (Miller, 2016). As a result, generational trauma can be passed down genetically. If the mother lives in stressful environments, she can be programmed to adapt and pass on her ‘survival tactics’ to her fetus (Lefmann, 2018). An example is the Dutch Hunger Winter during World War II from 1944-1945, where babies were essentially programmed to survive with limited food. They thrived with a limited diet under harsh conditions. However, when the war was over and they had access to proper nutrition, the mismatch between their environment and genetic programming put them at higher risk for obesity and other diseases. Trauma can live within DNA and be passed down through generations from programming due to humans’ adaptability, impacting the stress response

systems (Lefmann, 2018).

Because of brain plasticity, “humans are uniquely equipped to adapt to changing environments” (Miller, 2016, p. 270). Whereas adaptability to harsh environments can be good, it can become dangerous, leading to a chronic stress response and wear down the stress response system. The biological lens and epigenetics help explain why and how the John Henryism theory works.

Resiliency Theory

To conceptualize the framework for a strengths-based approach to understanding development and why some youth grow up to be healthy adults despite adverse exposure, the resiliency theory by Zimmerman (2013) was applied. Zimmerman (2013) cites that the “resiliency theory focuses attention on positive contextual, social, and individual variables that interfere with or disrupt developmental trajectories from risk to problem behaviors, mental distress, and poor health outcomes” (p. 1). The positive factors that facilitate resilience are called promotive factors, aiding youth to overcome the negative effects of risk exposure; there are two types of promotive factors: assets and resources (Zimmerman, 2013). Assets refer to factors within individuals, such as self-efficacy and self-esteem; resources refer to external factors such as parent support, adult mentors, youth programs, etc.

The resiliency theory was utilized to help identify what, if any, promotive factors aid FGLI students of color to overcome their adversities and build resilience. Over the years, there have been several models created to break down and describe how promotive factors may counteract, protect against, or inoculate youth from adversities. The commonality across the board is that multiple factors interact and play a role in helping youth develop resilience, positing relationships and processes (Zimmerman, 2013). Furthermore, a resiliency paradigm orients

positive factors that become the focus of change strategies designed to enhance strengths. As mentioned earlier, there are so many complexities and nuances in every individual, but the John Henryism theory, biological theory, and resiliency theory, all help inform how resilience is built on every level and the impact it has (Brody et al., 2013; Miller, 2016; Zimmerman, 2013).

Research Gaps

The John Henryism theory has primarily been applied to Black male youth, and multiple studies have cited that the theory should be expanded to other disadvantaged youth because they hypothesize the theory will apply to other racial and ethnic groups (Brody et al., 2013; Flaskerud, 2012). Although some studies have looked briefly into applying the John Henryism theory to other racial and ethnic groups, there have not been many studies that have broadly looked at many youths of color from low-income backgrounds. Additionally, there have not been many studies looking at this phenomenon in those who do not identify as male. Lastly, Torsney et al. (2023) mention that the John Henryism theory has little empirical research within educational contexts.

Furthermore, while researching the John Henryism theory, there were many contradicting results from various studies. Wiist & Flack (1991) found differences in the prevalence of cholesterol among low-income individuals who scored high on their John Henryism scale, yet were not associated with a greater prevalence of high blood pressure. Similarly, James et al. (1983) found the same, with no statistically significant differences in systolic blood pressure. However, Bennett et al. (2004) found that high levels of John Henryism and low education levels were linked significantly with higher diastolic blood pressure. Additionally, Brody et al. (2013) found that those who evinced high levels of self-control/competence from high socioeconomic status-related risk displayed high levels of physiological risk, exposing them to a myriad of

associated poor health morbidities. Many other studies have found contradicting results, and a reason is that each focuses and frames different aspects of John Henryism and its active coping methods as protective or harmful— academic achievement, education, self-control, personal efficacy, cultural upbringing and tools, genetics, behavioral disposition, etc. (Flaskerud, 2012).

The Present Study

There are a multitude of studies noting the vulnerabilities of low-income people of color without much consideration for the strengths and resilience they have built in the face of adversity. By applying and drawing inspiration from the John Henryism theory, this study explored how first-generation, low-income students of color developed their resilience in the face of adversities. Torsney et al. (2022) found that those identifying as first-generation, with a higher probability of being lower income, predicted John Henryism, thus the eligibility criteria for the study. Additionally, John Henryism takes a more asset-based approach by highlighting concepts such as social support and other effective coping skills that reframe FGLI students of color through a strengths-based lens (Torsney et al., 2022).

This study utilized a convergent mixed-methods approach with a participatory framework. Quantitative data was collected from anonymous surveys. Qualitative data was collected through in-depth, semi-structured, hour-long interviews, using a phenomenological design to give a face and story to the numbers, investigating what it means to exist as a FGLI student of color. The study created space to highlight the unique stories of individuals who have experienced the many intersecting challenges of being a low-income student of color.

For the quantitative portion, the hypotheses are as follows:

Hypothesis 1: Those with high Active Coping and/or Resilience scores will score lower on General Health while navigating the associated stressors with low SES, racial discrimination,

and lack of resources for FGLI students of color. In other terms, the two variables of Active Coping and/or Resilience will have a negative relationship with General Health— the higher the Active Coping and/or Resilience scores, the lower the General Health score.

Hypothesis 2: Active Coping and Resilience will have a positive correlation— the higher the Active Coping score, the higher the Resilience score, and vice versa. Active Coping is often essential when facing challenges, as it supports the Resilience needed to overcome. On the other hand, being Resilient leads to the cultivation of Active Coping strategies.

As for the qualitative analysis, the research question is as follows:

Research Question: How does growing up as a low-income person of color build and foster resilience while facing the intersecting challenges associated with low SES and racial discrimination? Guided by Zimmerman's (2013) definition of resilience and strengths-based lens, the study examines what promotive factors — assets and resources— foster resilience in FGLI students of color. Lastly, the study integrated both methods to provide a holistic view, informing the multifaceted nature of the lived experiences of FGLI students of color through a convergent mixed-methods approach utilizing a participatory framework.

Methods

Procedures

The study was approved by the Institutional Review Board (IRB) at Tufts University. This study utilized various recruitment methods to find participants and worked alongside First-Generation and Low-Income centers, student organizations, and affinity groups across various schools around the nation to request that the recruitment flyer be put in their newsletters as well as posted in the centers. After identifying initial participants, purposive, snowball sampling was utilized to connect to other interested participants. All interested participants

completed a screener section at the beginning of the survey to determine eligibility: (1) 18–23 years old; (2) self-identify as a person of color; (3) self-identify as first-generation and low-income (FGLI) college student; (4) currently reside in the United States of America. While conducting the literature review, there were many definitions and measurements for first-generation college students, low-income backgrounds, and racial or ethnic identity. Rather than imposing rigid criteria or labeling someone else's experiences, the self-identification of these identities was prioritized to honor participants' lived experiences. Depending on whether participants were eligible or not, the anonymous survey ended or continued. If prompted to continue, the participants continued to fill out the consent form, demographic section, and a short survey that took approximately 10 minutes. At the end of the survey, the last question asked if the participant was interested in an interview later on for the qualitative portion of the study. For those interested, an email was sent to set up a time to interview. Interviews were conducted, recorded, and transcribed via Zoom, each lasting 30-60 minutes. After the data collection process was completed, the data was analyzed separately, and then integration of the quantitative and qualitative data was done to conduct a convergent mixed-methods approach.

Participants

Of the 147 people who took the survey, 60 participants were included in the analyses after excluding others for not meeting the eligibility criteria. Participants ranged in age from 18-23 years ($N = 60$, $M = 20.09$, $SD = 1.68$). The sample consisted of 70% self-identifying as female, 20% as male, 6.7% as non-binary, 1.7% as gender fluid, and 1.7% preferred not to answer. As for race, 33.3% self-identified as Hispanic or Latino, 31.7% as Asian, 20% as Black or African American, 11.7% as multiracial, and 3.3% as Middle-Eastern. For sexual orientation, 61.7% identified as heterosexual, 20% as bisexual, 5% as pansexual or preferred not to answer,

3.3% as gay or queer, and 1.7% as lesbian. For disability, 81.7% responded ‘No' to having a disability, while 16.7% responded ‘Yes’ and 1.7% preferred not to answer. The sample had 86.7% identifying as U.S. citizens, 10% non-citizens, and 3.3% preferred not to answer. As for native U.S.-born, 66.7% responded ‘Yes’ while 16.7% were not born in the U.S. (Ethiopia, China, Dominican Republic, Vietnam, Philippines, Morocco, and Nepal), and 16.6% preferred not to answer.

As for the current school year, the sample had 30% first-years, 18.3% second-years, 13.3% third-years, 21.7% fourth-years, 15% graduate students, and 1.7% preferred not to answer. There were students from all over the country— Tufts University, University of Virginia, University of Chicago, Boston University, Yale University, Northwestern University, Northeastern University, Davidson College, College of Holy Cross, Columbia University, Hunter College, City College of New York, University of California at Santa Barbara, Vassar College, University of Michigan, Vanderbilt University, Texas State University, Caltech, Yale University, and Stanford University.

Measures

Quantitative Data Measures

The survey was conducted via Qualtrics, assessing individuals’ demographic information along with three main variables: Active Coping ($N = 60$), General Health ($N = 57$), and Resilience ($N = 49$). The number of participants decreased as the survey progressed, possibly due to survey fatigue, resulting in varying sample sizes for each scale. However, SPSS (Statistical Package for the Social Sciences) software accounted for these differences when conducting various quantitative analyses. The study utilized three scales to capture different aspects of the participants’ lives and upbringing in a comprehensive short survey that took approximately 10

minutes to complete. From the three scales, each has a different method of scaling scores to find composites for the scale.

John Henryism Active Coping Scale (JHAC12)

The *John Henryism Active Coping Scale (JHAC12)* is a 12-item scale for measuring John Henryism (James et al., 1983; James, 1994). This study draws inspiration from one of the first studies that explored John Henryism. Flaskerud (2012) cites that the JHAC12 is currently the standard measurement of John Henryism. Examples of items on the scale include: "I don't let my personal feelings get in the way of doing a job;" "Once I make up my mind to do something, I stay with it until the job is completely done;" and "Sometimes I feel that if anything is going to be done right, I have to do it myself." The response categories are measured on a 5-point Likert scale: (1) completely false, (2) somewhat false, (3) neutral, (4) somewhat true, (5) completely true. The *John Henryism Active Coping Scale (JHAC12)* scores are computed by taking the mean of all items answered; low scores mean low Active Coping, while higher scores indicate high Active Coping.

RAND 36-Item Short-Form Health Survey

Drawing inspiration from the Brody et al. (2013) study, this study utilized the *RAND 36-Item Short-Form Health Survey* (Hays, Sherbourne, & Mazel, 1993). According to the John Henryism theory, resilient youth are externalizing behaviors that are perceived as thriving with high academic achievement, determination, and self-control; however, they may also be suffering internally with detrimental, otherwise undetectable wear and tear to their health (Brody et al., 2013; Flaskerud, 2012). This five-item subscale includes a single-item rating of overall health from 1 (excellent) to 5 (poor) and four items assessing current health status on a scale from 1 (definitely false) to 5 (definitely true). This scale utilizes reverse-coded items to reduce response

bias (e.g., acquiescence bias, where participants tend to agree with all items). The scale measured and examined the health impacts and differences, if any, in the sample. First, scores were re-coded and reverse-coded with the respective scores ranging from 0-100, and then the scale scores were composited according to the guidelines for the survey. The items are scored so that a high score defines a more favorable health state— low scores mean low General Health, while higher scores indicate high General Health. While this scale provides valuable information about General Health, it does not provide insight into how variation in emotional upbringing within varying cultural contexts may affect the internalization and externalization of stress.

25-item Resilience Scale

Lastly, the study utilized the *25-item Resilience Scale* created by Wagnild & Young (1993). The response categories are measured on a 7-point Likert scale from 1 (disagree) to 7 (agree). A higher score indicates a higher degree of Resilience of the individual. This Resilience scale has been utilized by multiple studies and is considered the gold standard for resilience assessments. The internal consistency reliability of the scale has been used across sample populations and is considered robust (Wagnild, 2009). The scores are summed to produce a total score with a possible score range from 25-175, with higher scores reflecting higher Resilience.

Qualitative Measures

The qualitative portion of the study consisted of thorough, in-depth, phenomenological, semi-structured interviews with open-ended questions, with the freedom to follow individual threads of each participant. The study includes interviews with 14 participants via Zoom, lasting 30-60 minutes. According to Hennink & Kaiser (2022), saturation is reached between 9-17 interviews, with a mean of 12-13 interviews. Saturation refers to the point when no additional issues or insights are identified, thus further data collection is redundant. Furthermore, saturation

is the "most frequently touted guarantee of qualitative rigor offered by authors to reviewers and readers" (Hennink & Kaiser, 2022, p. 2)." Therefore, with a sample size of 14 interviewees, saturation was achieved following Hennink and Kaiser's (2022) findings.

The interview script was semi-structured and included an introduction, obtaining consent, the prepared questions, time for participants to share additional thoughts, and a conclusion. The questions asked covered various topics: upbringing, their various identities, feelings towards higher education, support systems, challenges they have encountered, reflecting on their personal and academic journey, and future goals. By keeping the questions broad, there were opportunities to discuss topics related to the cultivation of resilience, imposter syndrome, formal and informal support systems, and their drive by following their lead in the conversation, yet gently guiding it. Sample questions included the following:

> Do you feel like you belong at your university? What have been some hurdles? What has come easy? How would you describe your upbringing? What sustains you? What keeps you going? What does it mean to be a first-generation/low-income/student of color? Can you describe any mentors, programs, or resources that have been particularly helpful?

Interviewee Demographics

As mentioned before, at the end of the survey, there was an option to mark if the participant was interested in being interviewed, which is how all interviewees were recruited. Participants who were interviewed ranged in age from 18 to 23 years ($N = 14$, $M = 20.79$, $SD = 1.47$). The sample had 10 self-identifying as female, 2 as non-binary, 1 as male, and 1 preferred not to answer. As for race, 7 participants self-identified as Hispanic or Latino, 3 as Asian, 2 as multiracial, 1 as Black/African American, and 1 as Middle-Eastern. For sexual orientation, 7 self-identified as heterosexual, 4 as bisexual, 2 as pansexual or preferred not to answer, and 1 as

queer. For disability, 11 answered ‘No’ to having a disability, 2 responded ‘Yes,’ and 1 participant preferred not to answer. As for the current school year, the sample had 1 first-year, 2 second-years, 2 third-years, 5 fourth-years, and 4 graduate students from various schools: Tufts University, University of Virginia, Yale University, Northwestern University, University of Chicago, California Institute of Technology, Boston University, and Texas State University. To protect the anonymity of the interviewees, identifiable information has been redacted and pseudonyms are used.

Analysis Plan

Quantitative Data Analysis Plan

For the quantitative analyses, Statistical Package for the Social Sciences (SPSS) was utilized. SPSS’s versatility has made it one of the most widely utilized packages of its type, allowing for various types of analyses, data transformations, and forms of output (Arkkelin, 2014). Pearson correlation analyses were conducted to see if there were any statistically significant associations and relationships between the variables. Correlation analyses were conducted on every variable: Active Coping with General Health, Active Coping with Resilience, and General Health with Resilience.

The correlation matrix is a quick, effective method of showing statistically significant relationships between the variables. Additionally, to ensure the validity of the correlational analyses, there were several assumptive tests run beforehand—histograms, P-P plots, and box plots— to ensure they met the requirements for the correlation tests (see Appendix A, Figure A1-A9). Lastly, scatterplots for preliminary findings were also conducted to see if there was a linear relationship between the variables (see Appendix B, B3-B5).

Qualitative Data Analysis Plan

For the qualitative portion, the interviews were coded with NVivo, a software designed for qualitative data analysis. The study utilized Braun & Clarke's (2006) six-step process for thematic analysis: "(1) familiarize yourself with your data, (2) generate initial codes, (3) searching for themes, (4) reviewing themes, (5) define and naming themes, (6) produce the report " (p. 87). The qualitative data incorporated both deductive and inductive approaches to identify semantic and latent meanings to produce themes in the interview responses. This study utilized reflexive thematic analysis, which allowed for further exploration beyond passively finding themes from the data; it invites the researcher's reflective and thoughtful engagement with the data to develop meaningful, interpretive themes that provide a richer, more nuanced reading of the data (Braun & Clarke, 2019). The flexibility, exploratory, and interpretive nature of reflexive thematic analysis was optimal for analyzing the diverse and complex, multifaceted lives of first-generation, low-income students of color.

Convergent Mixed-Methods Approach - Integration of Methods

As for the integration of both methods, the study utilized a convergent mixed-methods approach to capture the nuances of the participants' experiences and stories, providing a deeper explanation and understanding of the quantitative findings and vice versa. This method is commonly used to draw upon the strengths of both quantitative and qualitative approaches to address contemporary issues (Fetters et al., 2013). Data collection and analyses occurred in parallel, and integration started after the quantitative and qualitative analyses were complete. Following Fetter et al. (2013) and Moseholm & Fetters (2017) articles, the study analyzed the data separately and then integrated the methods to see if the data confirmed, expanded, or contradicted one another. Additionally, this study specifically utilized a participatory framework

by focusing on and empowering the voices of marginalized and underrepresented populations to address social injustices in various systems (Fetter et al., 2013). The statistical results revealed interesting patterns, while the qualitative interviews offered valuable context to interpret the numbers and inform various supports that are needed for FGLI students of color. Both contributed valuable insight, and the utilization of convergent mixed methods captured a holistic yet nuanced perspective of the intricate lives of FGLI students of color, showcasing the diversity of stories and experiences of this population.

Results

Quantitative Analysis

Preliminary Analysis Results

Preliminary analyses indicated that all three variables— Active Coping, General Health, and Resilience— followed a normal distribution curve when looking at each respective histogram and P-P plot (see Appendix A, Figures A1-A8). Additionally, the skewness and kurtosis met the threshold for normality (-1 to +1) (see Appendix Table A, Table A10). Descriptive statistics for each variable are as follows: Active Coping ($N = 60$, $M = 3.69$, $SD = 0.46$), General Health ($N = 57$, $M = 64.98$, $SD = 23.48$), and Resilience ($N = 49$, $M = 134.45$, $SD = 20.32$) (see Appendix A, Table A10). As for outliers, box plots were created (see Appendix A, Figures A3, A6, A9) and raw scores were standardized into z-scores; the study identified one outlier for the Resilience variable, which was removed from the analysis to avoid skewing the results. Lastly, multiple preliminary scatterplots were conducted for the variables (see Appendix B, Figure B3-B5), revealing positive linear relationships among Active Coping, General Health, and Resilience.

Pearson Correlation Analysis

Table 1

Pearson Correlation Table

		Active_Coping	General_Health	Resilience
Active_Coping	Pearson Correlation	1	.303*	.720**
	Sig. (2-tailed)		.022	<.001
	N	60	57	49
General_Health	Pearson Correlation	.303*	1	.399**
	Sig. (2-tailed)	.022		.005
	N	57	57	49
Resilience	Pearson Correlation	.720**	.399**	1
	Sig. (2-tailed)	<.001	.005	
	N	49	49	49

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

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

The Pearson correlation analysis shows a positive, statistically significant correlation between Active Coping and General Health ($r = 0.303$, $p = .022$, 95% *CI* [.046-.522]), indicating that higher levels of Active Coping are associated with higher General Health (see Table 1), and vice versa. The effect size is small to moderate. The relationship is statistically significant for a two-tailed test ($p<.05$). The confidence interval does not include 0, further supporting the conclusion that the correlation is statistically significant and unlikely due to chance (see Appendix B, Table B2).

Furthermore, the Pearson correlation highlights a moderate positive, statistically significant correlation between General Health and Resilience ($r = 0.399$, $p = .005$, 95% *CI* [.132-.611]), indicating that higher General Health is associated with higher Resilience (see Table 1), and vice versa. The effect size is moderate to large. The relationship is statistically

significant for a two-tailed test ($p<.05$). The confidence interval does not include 0, further supporting the conclusion that the correlation is statistically significant and unlikely due to chance (see Appendix B, Table B2).

Lastly, the Pearson correlation highlights a strong positive, statistically significant correlation between Active Coping and Resilience ($r = 0.720$, $p<.001$, 95% *CI* [.551-.833]), indicating that higher levels of Active Coping are associated with higher Resilience (see Table 1), and vice versa. The effect size is large. The relationship is statistically significant for a two-tailed test ($p<.01$). The confidence interval does not include 0, further supporting the conclusion that the correlation is statistically significant and unlikely due to chance (see Appendix B, Table B2).

Qualitative Themes

During the interviews, participants were asked to reflect on their upbringing, various identities, feelings towards higher education, support systems, challenges they have encountered, their personal and academic journey, and future goals. Utilizing Braun & Clarke (2019) reflexive thematic analysis approach, the study identified five major themes: (1) Out of Place: Navigating a Culture Not Built for Us, (2) Never Enough: Overworking & Overachievement, (3) Between Obligation & Autonomy: Complex Role of Family, (4) It Takes a Village: Strength in Shared Identities, (5) Redefining Resilience: Survival to Self-Pride. Each major theme had several sub-themes to capture the full scope of diverse experiences from the interviews.

Theme 1: Out of Place: Navigating a Culture Not Built for Us

Noticing Differences. All participants spoke about moments when they felt out of place throughout their upbringing that were only exacerbated when they transitioned into higher education. A major contributor to this was noticing differences when comparing themselves to

their peers, especially regarding educational backgrounds, resources, and support. Flores mentioned that when she entered college and talked to others, she noticed that "they went to like some crazy private school, some feeder schools basically…and they have all this crazy like research with other universities and everything, and I didn't have quite the same experience." Additionally, Julia said,

> They went to a preparatory school or a private school or a charter school. I think I was one out of like three or four students that I've met who went to a public school, so there was a lot of cultural differences between us too. It made it hard for me to understand…because it kind of felt like, wow, everybody's ahead of the curve here, and I'm still trying to get my bearings together.

Both Flores and Julia touch on the stark differences in their educational backgrounds and opportunities before higher education compared to their peers. Moreover, Jocelyn said,

> The transition was like realizing a lot of things that I grew up with wasn't the same as other people, which I know that's a very naive way to think about it. But I just didn't know how to an extreme it was like. I know it's gonna be people are gonna be different from me. I knew that much. It's just to an extreme that was like, 'Oh, you guys didn't grow up with this like this.'

These examples reflect the shock of being from a low-income background with a public school education and then transitioning to higher education, which is not as accessible to those without as much wealth or privilege. Jocelyn touches on the fact that she knew a bit of what to expect, but the 'extreme' difference surprised her. Julia touched on how few classmates there were who attended public school, which highlights the shocking differences in educational journeys. Julia continued and said,

> It was like my whole childhood, I was like, I need to get to college. I need to get my 4-year degree. And then I get there, and then everybody's like, 'Okay, well, what are you going to do after that?' And I was like, 'I don't know. I thought I would figure it out here,' but it felt like everybody else had it already figured out, and a lot of professors I met too. They were like, 'Yeah, most of our students just continue going to school, like they don't stop after the four-year degree.' And I was like, 'Okay, but what if I don't know if I want to do that yet?'

Many interviewees had the same mentality as Julia. Their main goal was to get to college, where they thought they would figure things out, but they were met with feeling out of place due to their different upbringing, resources, and opportunities. Being first-generation, they did not have the same preparation or expectations compared to others who could ask their parents for advice and essentially follow in their footsteps with higher education. There was no blueprint or foundation for them to follow.

Lack of Understanding. The differences between peers led to experiencing a lack of understanding when talking about their upbringing, often leading to shame and embarrassment when asked. Kat said that when people asked her what her parents do, she said,

> It was like the dreaded question…there's a kid in the program, his mom was a Harvard professor. There's another kid whose dad was a Yale Professor, and they're like, 'What do your parents do?' And I was like, 'Oh, my mom works out of jail, and my dad's unemployed…' I literally got asked by the kid whose dad works at Yale. He was like, 'Your parents didn't go to college. How did, how are you here like? How did you get here?' And I was like, 'Oh.'

Kat dreaded the question about her parents and upbringing, and when she did answer the

question, it was met with confusion about how she could be at college when her parents did not attend, along with her mother working a blue-collar job and her father being unemployed. Compared to her peers, her parents did not hold as a prestigious or respected career in her perspective and dreaded answering the question about her upbringing; the disparity felt glaring where elite education and generational privilege are the norm. She already had internal shame, and the response from her peers only intensified that feeling, making her feel further othered and ostracized. Additionally, with varying multifaceted identities, some wanted to share their experiences voluntarily but met with reluctance. Wendy recalls a time when she shared her experiences with a friend:

> I knew they were well-intentioned, but it just felt like awkward. Sometimes, it felt like I was making them feel bad, and then I felt bad. So then I was like this weird dance of like, 'Oh, do I comfort you now?' But also, this is about like my struggle. Like, why am I comforting you?

When asked by others about their upbringing, FGLI students of color are often met with discomfort as their peers do not have much exposure or experience discussing these topics, which are the norm for the interviewees. As a result, as seen in Wendy's case, it becomes her burden to comfort the other person when trying to simply share her story and experiences with what was initially asked by someone else. Another example is when Jocelyn was in class:

> In my media analysis class, we watched a film that's from [Country], and it highlights a lot of [Race]…And I'm [Race], and I had to very much explain a lot about the immigration process to my class of like, yeah, this is how it is, and this is what this line meant, and this is how [Country] is. This is how it is, and people were shocked by it, and I was like, 'Cool, people don't know this. It isn't as common as I thought it was gonna

be.'

A similar instance occurred with Julia in class:

> I remember sitting in a class at [school], and we were talking about FGLI students. And I can't remember what term it was, but it was lower socioeconomic class or some other term I had never heard of before. And I was like, I've lived through that, and I've never heard anyone describe us like that, let alone ourselves like that. And it just kind of like threw me off, and I was like, what are we doing talking about people in a room and said people aren't in the conversation.

In intimate spaces, from friends to academic spaces such as class, interviewees spoke about how they were the outliers with these different identities subtly imposed to discuss their experiences. Yet, they were met with confusion and even needed to comfort the other person. In Julia's case, she felt discomfort as her identities and associated struggles were discussed, yet the stakeholders talked about were not present. Not only is the transition to life at higher education striking, but FGLI students of color are asked to share their experiences, only to be met with discomfort and further alienation and othering from their peers. This lack of exposure and understanding places a burden on FGLI students of color to navigate various conversations with caution.

Imposter Syndrome. The noticing of differences and lack of understanding brought feelings of imposter syndrome. Anglica even brought up feeling imposter syndrome before getting to college:

> There was something about like the thought that I was like, 'Should I really be here? Is this really a place for me, like, how did I even get in? Why am I here, like, I don't think I belong here.' I think maybe when I first got my acceptance letter, I was like, Oh, maybe it was an accident. Like maybe they'll send me an email saying, 'Sorry, this is an accident.

> It's not for you.' Like, that's what I was expecting.

Even before experiencing the culture shock of transitioning to college, Angelica felt unworthy of her acceptance. She believed it was a mistake because she did not think she was good enough for the school. She thought it must have been a mistake that she was accepted to college. When getting to college, the imposter syndrome was only exacerbated when the interviewees saw the vast differences between them and the majority of their peers. Angelica elaborated and said, "Once I got to [school], I realized how behind we really were, and it kind of like, I feel like it made me feel small." Gia mentioned similar feelings:

> I feel a lot of imposter syndrome where I was like, oh, I'm scared to like say something because then people are going to perceive me like that. I'm not smart, and like, that's gonna, like, affect me. A lot more hesitant to like speak like my thoughts on something.

The sense of not belonging and being an imposter was accompanied by feelings of being inferior, small, or the fear of being perceived as less intelligent. As seen in Gia's case, it can lead to being quieter and reserved about expressing oneself. Most interviewees thought things would be better once they got to college, but that notion was shattered once they realized how different they were from their peers, leaving them feeling out of place.

Theme 2: Never Enough: Overworking & Overachievement

Overworking. Either to combat feelings of imposter syndrome, not feeling enough, or the need to work, almost all interviewees spoke about the need to overachieve or overwork to prove or support themselves. The majority of interviewees were in leadership positions for 2-3 extracurriculars and/or worked 2-3 jobs. Mckayla said,

> I work because…I have to…it's just that's kind of like a thing that I know a lot of like. I think, like all the friends I can name off that are FGLI have jobs. So it's like, you know,

> we have that extra work. Like obligation that a lot of other students on campus don't have…that kind of like complicates it, like everything for us a little bit. And it does feed into like grades.

She noticed patterns of FGLI students tending to do more and carry the burden of additional obligations that many other students do not face. Also, she talked about how working is not a choice but a necessity for her to support herself. Similarly, Samaira said,

> I was technically responsible for covering my own education because my parents couldn't afford it so all of the resources that I had to seek out, I not only had to be academically successful, but I also had to deal with like some of like the stress of worrying about tuition and stuff, and how I was going to like seek out resources to cover that. And I felt like that wasn't necessarily as much as a burden for majority of the students at [school].

Being low-income came with the burden of needing to work on top of academics while seeking scholarships to support oneself with the high cost of tuition and living. Again, like Mckayla, Samaira took notice of how other students did not have this need to work. Angelica spoke about her similar experiences:

> I'm adding more to my plate… I kind of like, look at my paycheck. And I was like, 'Oh, this is not enough like I need more money. It's not gonna be enough to cover any expenses.' So then I end up adding more to my plate, adding more shifts. You know, anything that helps…I didn't know how to ask for help from anyone, so…I keep telling myself I'll figure it out with time. I'll figure it out because that's what I always used to tell myself.

The luxury of only needing to focus on academics is not extended to many FGLI students of color who need to support themselves. Even with a full plate, Angelica still did not have enough

and had to keep adding more shifts to cover her expenses. She could not rely on her parents' support because, later on, she mentions that she sends money to help support them. However, in Wendy's case, when she was asked what motivated her, she mentioned, "Honestly, it came from a place of like external, like validation." Unlike others, Wendy's motivations stemmed from the need for validation to prove her belonging in higher education institutions. Either from the need to work to make ends meet or high self-imposed expectations, interviewees felt constant pressure to do more to validate their place and belonging at their institution.

Mental Health Struggles. From overworking and/or overachieving, the consequences of taking on too many commitments are reflected in the interviewees' experiences with issues related to mental health and, eventually, burnout. Jocelyn said,

> I like down four Redbulls, and I didn't eat like anything until like 8 p.m. That was like my first meal of the day because my essay was due at 6 p.m… I just stopped caring about my body and started like disregarding anything that like my body, any kind of nutrition, just like I need to finish this day.

In Jocelyn's case, she ignored her physiological needs and over-extended herself needing the aid of four Redbulls to make sure she finished her work. This mentality and avoidance of personal needs reflect harmful patterns— psychologically and physiologically. She is literally 'disregarding' her needs to prioritize her school assignments. Jocelyn elaborated on her drive and said,

> I feel very behind compared to some people. So that's my mentality right now. Like I need to do as much as possible. Kind of willing to burn myself out again. I know that's a very bad way to think about it. It's just, like I have a fear of not working… living in the streets and like failing at my dream.

A part of her drive and toxic work mentality stemmed from fear of living in the streets and failure. During the interview, she touched on struggling while growing up being low-income, and she does not want to end up back in that space of uncertainty and struggle. Thus, she is willing to do anything, no matter the cost to her physical and mental health, to finish her school work and ensure a financially secure and successful future. Similarly, Teddy mentions faltering under the stress and needing to take a break from burnout:

> I need to do everything like now, now, now. Like I need the internship now, I need the job now. I need like the program now, the fellowship now. And that was very exhausting, very, very exhausting. So much so that I found myself like burning out so quickly throughout the semester. That was actually one of the reasons I took my first leave. So I did a year, and then my fall of sophomore year was like so horrible that I just took a medical leave.

The pressure from classes, peers, and self-imposed expectations took a heavy toll on Teddy, and they had to take a break and then return just to take another leave for their mental health struggles. The repetition of the word “now” highlights the urgency of how Teddy is feeling about needing to achieve various goals during their undergraduate career. From an internship, job, program, fellowship, and these other milestones, Teddy feels pressure from observing the high drive and motivation of their peers. This pressure is only intensified when comparing their place to their peers who seem so on top and ahead of the curve. Teddy mentions trying to find support from peers, which backfired, leaving them worse off than before:

> In their minds, they're like, ‘Well, you're not hustling, so you don't deserve to feel sad. I deserve to feel sad because I'm hustling, and I'm taking hard classes. You're just taking whatever classes, and you're not even fulfilling your major requirements. Why are you

upset?' And that was really the energy I got my first couple years.

The notion that Teddy received that they did not deserve to feel bad for not hustling or grinding as hard as their peers is a reflection of the toxic, competitive nature of many higher education institutions. Unlike their peers, Teddy did not have as much support and resources as non-FGLI students, to help with common struggles— navigating the transition to college, finding internships and jobs, balancing their new schedule, imposter syndrome, feeling isolated, etc. While Teddy struggled to transition to college with no support, their peers were further ahead and judged Teddy for not 'hustling' as hard. However, Teddy was focused on simply surviving under the new stress of all these new challenges.

On My Own. Compared to non-FGLI peers, interviewees touched on feeling alone in their struggle with no one to turn to who would understand or offer applicable solutions. Samaira explained:

> I don't have a lot of familiarity with how higher education has worked, and people are typically able to like fall back on like their parents or mentors and stuff like that. But I haven't been as privileged to have those sorts of relationships…any time I need a question answered, it's typically been like, I'd have to go seek out those resources or find that answer on my own, like, independent of like, another person's help or guidance.

Being the first in their family to attend a four-year university, they must explore and navigate an unknown world independently, which may come more easily for their peers. There is no fallback, safety net, or even support system to help them. Angelica elaborated on this notion and said, "I kind of add more to my plate than kind of necessary, and because of it, I think because I've had that mindset of being independent for so long, it becomes kind of hard asking for help." Even asking for help is hard because many of them touched how they have been independent for so

much of their journey and caring for themselves while growing up that it may become their first instinct to figure things out for themselves— on their own. Angelica continued unpacking her hesitations and said,

> I don't want to be a burden to anyone else around me…if I have the ability to fix things or to do things that can like better my future, then yeah, I'll figure it out by myself. If that means me working or packing my schedule in order for me not to worry about financials later on, then, yeah, I'll do that because I don't have to burden my parents. I don't have to burden my mom, and I don't have to burden the people like around me. So if I'm able to do that, it saves me the hassle. But also…It saves me the need of asking for help.

She explained that one of the underlying reluctances for asking for help is the feeling of being a burden to those around her. This reflects carrying the heavy weight alone and essentially suffering in silence. But to her, it saves her the hassle of reaching out for support, thus becoming a hassle for others— sacrificing herself. Angelica kept mentioning the avoidance of being a burden, which reflects her perception that her needs are secondary to others. FGLI students of color lack support when coming into college, internal struggles of self-worth, and not wanting to be a burden, further leading to isolation, intensifying mental health struggles that lead to burnout stemming from feelings of never being enough.

Theme 3: Between Obligation & Autonomy: Complex Role of Family

Disconnect. Being the first in the family to attend a four-year institution, interviewees spoke about the lack of understanding and generational gaps with their parents and families. Teddy mentions that "there is a sort of disconnect," and Samaira discusses it more in-depth:

> Honestly, I don't think… they understand like how hard it is. So I think they're just like, 'Okay, slay,' or… 'good job'... All this is all really just like unfamiliar to them. They

> don't really understand the amount of like work that I have to do like on an individual level, to be where I am right now.

Samaira talks about how their parents know that they are in school and learning, but on a deeper level, they do not know the effort and time that is demanded in higher education— 'the amount of work.' Without the cultural capital of knowing how higher education works, Samaira's parents lack the understanding and familiarity of the complexities and workings of college life and academic rigor. Angelica explains her parents' perception of higher education:

> My parents didn't know anything about college. They're like, 'Oh, it's more school…' My mom still thinks it's structured like high school and middle school... I think it gets hard for me to like kind of like, let her know, like she doesn't quite understand it.

Angelica's parents rely on what is familiar to them— namely, the structure of high school and middle school; they have no frame of reference for higher education. Like Samaira, despite Angelica's efforts to explain the differences with college life, her parents' understanding remains limited as they have never experienced a four-year institution themselves. The lack of understanding and disconnect that occurs leaves interviewees with feelings of isolation and frustration. Domingo said, "Not having a family to rely on for questions about my daily life is hard. Not having a family that can really understand what I go through, that hurts a little bit." Unlike his peers, Domingo feels like he can not go to his family with his struggles because they do not have applicable solutions to the issues he faces, and like many, he mentions that it does hurt not being able to rely on his family for this type of support.

Desire for Independence. Another common feeling was the desire for independence and autonomy for the interviewees' aspirations to leave home and start anew. Many mentioned how their parents wanted the interviewees to stay close to home, but as Angelica said, "The reason

why I was so set on leaving, specifically out of state, was because I wanted to go somewhere that was far, specifically from my family." Jocelyn said similar sentiments:

> I have a goal in mind of just getting out of the state as much as possible, and I'll do whatever I can to achieve that goal. Because if I don't get out of the state, if I don't get out, like the community I'm in, I'm just gonna be stuck here, and I feel like I'm just gonna go nowhere.

During the interview, Angelica, Jocelyn, and many others talked about the need to leave and get away from their families and homes. The main reason was that they were fearful of becoming 'stuck'—struggling with limited opportunities in their hometowns. Angelica highlights this struggle:

> I mean, being in [state] basically my whole life, I wanted something else and just kind of wanted to get away from like the environment that I was in. I kind of just wanted to explore out of it. So that's how I ended up kind of like, basically begging my advisors like, 'Hey, send me out of state…I don't care where, just send me out.'

Angelica expresses an urgency to escape and go to a new place, no matter where it is. The word 'begging' highlights a desperation to leave. She has been stuck in one place, either physically and/or mentally, for her entire life, and like many other interviewees, she wanted to break out of her environment to continue growing and gain independence and agency.

Family Obligations. However, while interviewees craved independence, many mentioned various ways they supported their families, either financially, caring for siblings, or through other responsibilities. Most started supporting their families when they were little and continued on during their undergraduate careers, even when they were away from home. Mckayla said,

> I do send money back to like help pay…to help my mother like manage like finances... It's definitely really hard… I've had to drop like a class this semester just so I could like. you know, work enough. I haven't been able to attend office hours like I would like, because I do have to go to the admissions office to work or go work for my other job. So like, I say, it's definitely a problem. And I would definitely be like making better grades if I didn't have to work.

Mckayla is sacrificing her grades and doing what is necessary to be able to help support her mother financially. As mentioned earlier, many did not have the luxury of having a choice whether they wanted to work or not. They needed to work either to support themselves or their family members. As mentioned before, that usually looks like juggling 2-3 jobs for the majority of interviewees and other FGLI students. This comes at a sacrifice of less time for classes, thus the possibility of lower grades or even needing to drop a class. While the responsibility is heavy, Perla said,

> I still have to do a lot for them. So it's something that, like, I appreciate the fact that I'm, you know…there for them, and like doing all of those things for them…It does get heavy sometimes, where it's like it's a lot, and even with my siblings, but I don't get tired of it.

Perla is driven by the love for her family, and rather than being tired and weighed down by the responsibilities, she has an appreciation of having the ability to help and support her family. However, Angelica offered another perspective:

> I was talking with my mom like a couple of like weeks ago… and she kept mentioning how, 'Oh, if you stay during this summer you can earn more money.' But it becomes kind of hard telling her. 'No, like, I don't want to do it anymore. Like, I just want a break. I just want to be home for like a while.'

Unlike Perla, Angelica is exhausted and may be burnt out from working and having so much demanded from her mother. In the interview, she had to stay at school during the summer to earn money for her family and had not been home in a year. But with the summer approaching, she is trying to establish boundaries and protect herself from further burnout by telling her mother that she needs a break. While Perla and Angelica differ in their capacity to support their families, they both are similar in how they continue to fulfill family obligations by giving back in any way they can to support their families.

Surabhi further touched on the pressure to support family and said, “I don't have the opportunity to not get my degree… I still need to sustain my siblings and my parents, and maybe extended family if it ever comes to it.” To them, there is no option or luxury to falter and not obtain their degree. Their family is counting on their current and future support to survive. This obligation is heavy and apparent to Surabhi as they navigate their undergraduate career.

Honoring Sacrifices. While the burden is heavy, several interviewees spoke about wanting to honor the sacrifices made by their families. Flores said, “If my parents like immigrated here from [country], like, I might as well make it worth it. Like, I don't really see the point in my parents leaving everything behind.” Flores touched on the need to make their efforts meaningful, explaining that success is not just personal— it is communal. Additionally, Domingo said, “Both my mom and dad, they don't have any money saved up. So all their hopes for a good life, they're in me and my brother.” Both emphasize needing to make the most of the opportunities to honor their families’ sacrifices. Honoring sacrifices means carrying the weight of their families’ dreams while navigating their own paths forward. Samaira further highlights this notion:

Sometimes I do get like imposter syndrome, or… think that maybe I'm not supposed to

> be doing what I'm doing because it's been so hard...my mom wanted to be a doctor…my parents are from [country], so women don't go to school…I feel like as a like female professional, that's…something so sacred that I can use to honor my mom and like a lot of the experiences that she wasn't able to have. Because she got married at a young age and started a family at a young age. So I think that's what helps keep me going, like just having those reminders, and this is like the biggest 'Thank you' that I can do for them.

Samaira talks about how hard the journey has been, but their drive stems from the opportunities and dreams their parents, specifically their mother, did not have. Their parents immigrated to the United States and had to take care of the family first, so they could not afford to follow their dreams. Samaira recognizes the sacrifices and the drive to work so hard is to not only make the most of the sacrifices but also, have it serve as a 'thank you' to their parents. Similarly, Wendy talked about her family being a source of her drive, pride, and support:

> I just think about how, like my parents, like this is exactly what they wanted for us. Here I am, like, you know, living their dream…I think it was very emotional for me to just like, look back at my four years like as a whole…me being here is like built on like generations of effort. Like sure, I'm the one that's here, but it's like the people like my parents, who like sacrificed so much for me to be here.

Wendy recognizes the multi-generational effort for her to attend a four-year institution to receive higher education. As she mentions, looking back at her undergraduate career, this is not something that she takes lightly. This is exactly what her parents dreamed of for her when immigrating to America, and she feels like a living testament to their sacrifices.

When I asked Flores if she wanted to stay close to her family after graduating, she responded, "Oh, definitely, yeah. I think that that's kind of like the main point of everything I've

done up to this point." Flores's source of strength and support comes from her family; her family is the "main point of everything" she has done. However, Julia talks about how love in her family may look different:

> Our whole thing is just like eating dinner together. That's like our main family time. And we also travel together…when it comes to thinking about like my future and whatnot, I know that I want to include my parents and my sibling in that somehow, like I want to support them through like our financial struggles that way… I feel like in some sense, it's not what you would expect in terms of like closeness, but it's definitely like there's a strong caring and bonding that we have in our family.

Love is shown in various ways, and with her family, eating dinner or traveling together serves as a vehicle for love. Through these activities together, love is shown in implicit ways. Similar to others, she is intentional about what she is doing and the ways she can continue supporting her family and honoring the sacrifices made for her. Angelica had the same perspective and said,

> I just want to have a stable job in which I'm able to provide, not only for myself, but for my mom and for my brother, because I feel like it's now my time to return that to them, and I feel like that's the very bare minimum.

Furthermore, Domingo said, "The effort that I have to put that I have had to put to become someone has to reach a place eventually that leaves me to giving my family a good life." When considering what their future looks like, the one thing they are sure of is that it includes supporting their family. From these testimonies, it is evident that family sacrifices play a crucial role in many of the interviewees' dedication to their education and drive for a better life for themselves and their families. However, it is worth mentioning that the anecdotes mentioned in the subtheme of 'Honoring Sacrifices' are from children of immigrants. While the study focuses

on FGLI students of color, more than half of the interviewees are children of immigrants. Thus, it becomes difficult to separate the lived experiences of being an FGLI student of color from the unique cultural expectations and pressures that often come with being a child of immigrants. These identities are incredibly intertwined and shape how students understand success, adapt to stress, and externalize resilience.

Overall, the quotes reflect the carrying of the weight of family dreams and highlight the importance of making the most of every opportunity. Again, while this weight can be heavy, interviewees spoke about this weight as a privilege for which they are deeply grateful. Rather than viewing it as a burden, many saw it as a source of strength and purpose. Their motivation is not only rooted in their personal ambition or resilience, but a deep desire to uplift their families and fulfill generational sacrifices and hopes.

Source of Strength. As seen, family plays a critical but complex role with mixed feelings. Feelings of frustration arose when the interviewees reflected on their family's disconnect or burden of obligation, but at the same time, families were an immense source of strength and support for some interviewees. When reflecting on her high school experiences, Flores said,

> My mom was definitely super supportive with, like, anything that we wanted to do after school…she would always be there waiting for us, like after every practice, to pick us up and take us back home. She'd be driving us to wherever we were going, or if we were doing like volunteering. She would pick us up…And I think not a lot of people's parents were willing to do all that.

This feeds a bit into the need to honor sacrifices because Flores wanted to make the most of the opportunities that her parents sacrificed for her to have. But a critical part of what allowed her

the ability to do these various opportunities was her mother's willingness to drive Flores where she needed to go for extracurricular activities. Unlike other parents, she noticed that her mom was more than willing to continue investing time and energy into Flores's extracurriculars and passion. Gia also touched on how her parents supported her academic passions:

> My parents never forced me to like do like a specific thing. They were always like, 'Oh, just do like what you want, what you see yourself doing, and being happy doing for like the rest of your life.' And I was like, Okay. So I feel like I don't face pressure from them. It's just like pressure that I place on myself.

Gia's parents never placed pressure on her to do any specific thing. They just wanted to support her in her choices and personal passions, giving her room to explore and find what makes her happy. This, in turn, created an internal pressure to, again, make her parents' sacrifices and support 'worth it.' Wendy mentions the same support:

> They've always been very proud of me, and I never felt pressure from them to like go to an Ivy League, or like, go to like the best of the best they were like, 'as long as you're getting like a good education like that's like all we've ever wanted for you.' So yeah, they've always been very supportive, like I never felt the need to like go into stereotypical… they've just always encouraged that I just go to school and like, study what I love.

Similar to Gia, Wendy's parents simply wanted her to follow her dreams and develop her passions. She reiterated several times during the interview the love, support, and pride her parents have for her. She did not have the pressure to pursue a certain dream of her parents, but rather, find what she loves herself, with their support uplifting her.

Lastly, while interviewees primarily touched on the influence of their parents, some

mentioned the impact their siblings had. Flores talked about how her older sister inspired her and said, “The only reason I knew to take AP and honors classes was because that's what my sister had done. That was like my only my only role model at that moment.” Flores only knew what to do for classes because her older sister left her footsteps to follow, and that is why she serves as her role model. Family plays a complex role with many nuances and can vary vastly from one interviewee to the next, but it played a critical role in every single interviewee’s upbringing as they navigated between obligation and autonomy.

Theme 4: It Takes a Village: Strength in Shared Identities

Relatability and Belonging. As mentioned earlier, many interviewees felt like outsiders and may have struggled with imposter syndrome when they realized how different they are from the majority of other students in higher education. However, as they settled in and started talking to others or exploring various organizations, they found their communities, quickly bonding with those with similar backgrounds. Reagan said,

> I feel more comfortable in like communities [that] identify as like, first-gen or low income…when you're in a community that…you strongly identify with, you feel like there's like, often like topics or stuff like that like that would probably be questioned in other settings. But because you're in a community that like understands…you come from a unique background that…you probably like, struggled at some point in your life, or something like that, or like you've had to overcome like these obstacles…I don't have to explain myself as much.

Reagan touches on a sense of comfort and camaraderie that she feels when she is surrounded by other FGLI students. There are specific struggles and nuances in the lives of FGLI students, and when talking with a peer from a similar background, she does not feel the need to explain her

struggles or obstacles she has overcome. There is an innate sense of relatability and understanding of each other and the struggles they have experienced. Angelica elaborated on this concept:

> It was literally like family, like they lived the same experiences, you know, as a lot of like my other peers did. So they understood the struggle, but because they understood the struggle, they knew exactly what they needed to help us with…I just think I got super lucky with the people I had around me.

Angelica touched on similar notions as Reagan did with that innate understanding of each other's struggles. Not only does that apply to understanding each other's struggles, but also, being able to offer applicable solutions to support one another. Angelica goes on to say, "I'm happy like I have my friends who are like my own family. That's enough for me." There is such a deep connection that the FGLI community feels like a family to her, and that is enough for her. She does not feel the need for anything else when she has the support and love from her own community— her built family. She feels such a strong sense of belonging in a community, even in an environment not built for students like her.

Others even go as far as to say that they tended to stay in their communities and did not stray to meet other students with varying backgrounds. Kat said,

> My roommate, who was the other FGLI…we were like the closest friends, because we like we understood each other better… we both knew it was like, we've gotta be careful when we're speaking to them. Because if we bring up issues about like funding, if we complain about the university, if we talk about our backgrounds, like they're gonna get quiet because they don't know what to say.

While she touched on the common understanding of other FGLI students, she also labeled those

who were not FGLI as “them.” She mentions that she had to be wary while talking to non-FGLI students about certain topics since they may get uncomfortable and go quiet. This highlights the social divide where financial and personal struggles become unspoken barriers to deeper connections with the majority of the student body. As a result, FGLI may self-censor, self-segregate, and retreat to safety with their own communities, contributing to a sense of ‘otherness’ from the general student body.

On a more positive note, FGLI students can find immediate solace and connections without the need for extensive introductions or diving deeper. Mckayla said, “We'd be like, ‘Oh, my God, like you're Questbridge (national scholarship program for low-income students), like, okay, totally.’... like, instant, like friends like acquaintance, you know, like stuff like cute little like ways of like interacting and meeting people like that.” Just knowing that the other person is from the same scholarship program, thus knowing they are FGLI, put down Mckayla’s guards and created an instant connection to someone who was a stranger seconds before. Julia mentioned the same when she saw someone of the same race: “ There was another [Race] person at the writing center. I was like, ‘Oh, thank God!’” Additionally, Gia touches on the effort taken to interact with non-FGLI students:

> A lot of the people who are RAs (Residential Assistants) are also like very similar to like my background... those are the people like I'm closest to still … it just also is a lot less draining than being around people who… You don't have a lot to relate to, but it's like they're not trying to make the effort to even like understand.

With other RAs, she could relate because many of them came from similar backgrounds of being low-income and needing to work to sustain themselves. But with those who are not FGLI, she feels that they do not make the effort to understand her story, perspective, or community. Thus,

when she does try to interact with non-FGLI, it takes more energy for her to make conversation and find common ground.

Touching on belonging, Kat continued to say, “I tended to stick to like the other FGLI students I knew, and like kind of stuck to that community because it was what I knew and what like, felt safe. Because everything else was like it was a little intimidating.” From the culture shock of meeting non-FGLI students, Kat, like many other FGLI students, is intimidated by just how different they are and develops imposter syndrome. However, they are able to find understanding, community, support, and safety with those with similar backgrounds, struggles, and stories.

Institutional Resources. As for formal support, universities provide many resources through student organizations, identity-based centers, accessible mental health care, and personal connections with faculty and professors. Perla talked about feeling isolated and alone in her identity until she visited an identity center:

> Now that I found my community, I feel like that was basically what I needed…the [Identity] Center, like just being surrounded by [Race] people and knowing that there are [Race] people here on this campus as well. And now I've been able to reach out and like be comfortable in the same space as White people, and like other races.

She mentioned that she did not feel like she had a community until she went to her college’s identity center. Not only did it provide her with a community, but it also made her more comfortable navigating relationships and spaces with people of other races. Wendy had similar feelings about the identity center she is involved with and said,

> I never felt like I had to just like focus on my identity as a woman. Like, I could focus on like my race and my class. And like all these other aspects of my identity…the [Identity]

> Center… I also just went there a lot, like I feel like they really tried to focus on how like [Race] exists in the context of other identities. So I never really had to feel like I had to sacrifice one of my identities for the other. It was all like, how do they work together, and like, how do they inform each other?

Her chosen Identity Center not only provided her with a community, but it also made her reflect deeply on her identities and how they intersect and work together. Rather than just focusing on her race, she could also think about how class and gender play a role, and being able to reflect and discuss her intersectional identities further developed her as a person. On the other hand, Mckayla talked about more skill-based support her university provided:

> We like hold programming for FGLI students on campus, whether it's like social…little mixers, study breaks…or… We'll like team up with the Office of Educational Opportunity, hold like workshops…It might just be like workshops to like, help them learn, like, help students learn R, or like Zotero, or like for FGLI students, how to like manage your money …also, just like professional, like career development. Like we try to find, like FGLI-centered like internships or like career opportunities.

The office Mckayla works in provides various services and support, from formal skills such as learning how to use R or Zotero, career development workshops, and teaching how to manage their money, to informal events to cultivate belonging and community among the FGLI students with mixers and study breaks. The combination of practical skill-building with opportunities for networking and social connection acknowledges both the academic and emotional needs of FGLI students of color. Julia talked about how these different types of FGLI events made her feel:

> They also have, like a first-generation celebration week… they have like little games and whatnot, little booths. I think they had a scavenger hunt one year where you had to go

> around and find all of the services that they were connecting you to, and that was really nice, and it just felt like the amount of support that I got there. It felt more like we're celebrating you as a first-generation student.

These events and supports made an impact on Julia, making her feel celebrated and belonging rather than an outsider. Not only does it help by fostering a sense of belonging, but it also provides formal skills and connections to utilize for future opportunities and success. Additionally, the anecdotes highlight how intentional programming for marginalized groups can empower students to succeed in coursework and careers while also feeling seen, valued, and supported during their educational journey. Furthermore, rather than being overwhelmed with a list of resources and supports, these events give a face, a person, to the various resources and opportunities that make reaching out for help feel less daunting.

Additionally, accessible mental health care provided through the university was mentioned by many interviewees. Surabhi said, “Finally, like, after four years of wanting therapy, I got therapy, and I felt how it was to not feel rushed all the time, or just like not always have something to do.” Before college, they did not have access to mental health services, but through their university, they could now seek the support they had been needing and wanting for the past several years. With the newfound mental health support, another interviewee, Wendy, said, “I also like started going into therapy my freshman year. And that was like life-changing.” Wendy highlighted how much therapy helped change her life for the better. Samaira mentioned similar sentiments and said, “[University] had counselors through the [Identity] Center, and that was like such a huge system of support for me that I try to find it at any academic institution that I'm part of.” Therapy was a critical support system, and now finding that support is a priority for them going forward. Accessible mental health services were essential to their well-being, and

this support helped them heal from past challenges and begin to thrive beyond mere survival.

Another source of support was professors. While facing imposter syndrome, Flores said, “I'm really grateful for professors that went out of their way to talk about and address imposter syndrome… They had experienced imposter syndrome, and even hearing that …was something important for me to hear.” To see that not a student, but a professor at a university, was feeling the same things she did brought her reassurance and validation. She was no longer alone in this feeling of not being enough, and it was a common shared experience even with someone accomplished and successful in their career.

Other helpful resources were national scholarship or mentorship programs (Questbridge, Posse Scholars, Golden Door Scholars, etc.) that helped the interviewees navigate the college application process and even served as a community once they got to college. Gia talked about her experiences and said,

> I think like that organization…supported me so much and gave me so many resources on, like these are the scholarships you can apply to…Once I got to [University], like every Posse gets a mentor, and, like my mentor has just like, like, I just can't speak highly enough about her…She understands like the process that like we went through, and like everyone in my Posse, like we're all children of immigrant parents…having that community of someone who like understands like your background, but also is from the same place that you are…Posse, just as a whole, has just done so much for me.

Posse helped support Gia by showing her various scholarships she could apply to, as well as navigating the college search process. The support did not stop there; when she got to college, she had a personal mentor and a community of Posse scholars she could lean on for support. Furthermore, Reagan said, “Questbridge was kind of like this, like nice pipeline into college,

because I was able to use that to branch out into different initiatives at [University].” She utilized her connections in Questbridge to find and get involved with other initiatives and activities once on campus.

Also, over half of the interviewees were involved in a summer transition program hosted by their university the summer before starting their first semester. Kat said,

> Over 6 weeks, we did like classes, and they also had like seminars, and like team group bonding stuff…It was really useful to like, get me adjusted like I got. I was taking classes with [University] professors…I got to see what it's like, and I like had finals and all of that, and they taught me how to write for college, which was very useful… I had like friends from the program that I was able to like bring in during this actual school year… The transition was definitely softened, but it was still like a shock, especially once I was exposed to all of the students at [University].

Kat was able to take classes and was exposed to the academic rigor, build foundational skills, and create a support network of peers to essentially get ahead or catch up, softening the college transition. However, as mentioned, she was still shocked when school started to see that the culture of the student body was different than what was reflected in the transition program. While the transition program helped get Kat acquainted with college life, the transition program may have created false expectations regarding the student life and culture at large. The various supports from the interviewees’ universities or outside programs made a huge impact on both formal skills and cultivating a sense of belonging and community, reflecting that it truly does take a village.

Theme 5: Redefining Resilience: Survival to Self-Pride

Early Motivations. Whether it is wanting to leave home and craving independence, the

need to prove oneself, fear of homelessness and poverty, or simply wanting a better life, early motivations for the interviewees varied widely. Angelica shared her reasons and said, "I don't think there really is a way out, no matter how much I work now in high school. It's not going to be enough. So my goal here is to go to college. I feel like that's my only way out." Angelica's drive stems from her need to get out of her hometown and circumstances to create a better life for herself. She views higher education as one of the only avenues for better opportunities and an escape, citing that it is the "only way out." This reflects a sort of desperation and a need to get out of her current context and situation. Similarly, Teddy said,

> I want to make a more like a more meaningful impact, and I can only do that through higher education. So if it means kind of stomaching a couple more years, more semesters, more classes, even if it's extremely difficult. I do it for the sake of these goals of mine.

Like Angelica, Teddy views higher education as one of the only routes to a better life and to enact more meaningful impacts. While Teddy struggles in higher education, both emotionally with the toxic competitiveness between peers and the academic rigor, they are driven by their goals for a better life with more opportunities. Teddy is willing to suffer even if it is "extremely difficult" for the "sake of these goals"— success. Thus, they are willing to essentially suffer a couple more semesters to obtain the education that will lead to more opportunities. As for Jocelyn, she said,

> I have…the fear still in college of like, possibly not getting job after college. …My mind right now is like I need to do as much, put my name out there as much as possible, do as much work, work my portfolio especially… It's just like I have a fear of not working out, living in the streets, and like failing at my dream.

Coming from a low-income background, she spoke about her tumultuous upbringing, which is

now her drive for doing as much as possible, making the most of every opportunity. Her drive stems from literally not finding work, failing her dream, and living in the streets. She continued to lament her drive and said, “I would say just my motivation of like not being homeless. But being for real, just not being homeless after college.” She reiterates several times that being homeless is a real fear for her, and she is willing to do whatever it takes not to struggle financially again.

On the other hand, Reagan said, “The only reason that I'm able to like put out so much… is the fact that, like people invested their time in me, and…the mentors I had.” Unlike others, Reagan was driven by the investments others had made in her, so she wanted to make their time and energy worth it with her accomplishments and successes. In the same realm of thinking of others as their drive, when asked what her drive was, Julia said, “Probably be spite, especially with this year, and since the election, it's thinking about like who's in power right now, and how it's going to hurt the community that I'm in and the people that I care about.” She wants to be educated about various issues and solutions, putting her in a position to advocate and protect the communities she cares about— especially given the current political state of the country. For Reagan and Julia, they centered others as their drive; Reagan wants to honor the people’s investments they made for her success, while Julia wants to protect the people she cares about by becoming an advocate and protector. While each interviewee’s drive varied greatly, a common thread was bettering circumstances either for themselves or the communities they care about.

Survival to Self-Pride. When asked to reflect on how they feel, reflecting on the obstacles the interviewees overcame, a common theme was the acknowledgment of the pride they have when reflecting on their personal growth. This type of mentality and later reframing contributed to thriving both personally and academically. For Gia, feelings of shame transformed

into something else as she continued discovering who she was in college:

> At first, whenever anyone would ask me, like what my parents did well, like in middle and high school like, I would lie, like I would have fun with it…I'm like, 'Oh, my dad's an engineer,' like I don't know what an engineer does. So I feel like it's a lot less like shame because I'm like, Okay, this is like where I came from, and like the fact that I'm here says a lot about like who I am as a person, and like my drive and my motivation and my goals. So I feel like now it's more of a source of pride.

Through college and the community of FGLI peers she has made and through utilizing various resources, she does not view her upbringing as a deficit but rather a source of pride and strength. Her being where she is and completing a four-year degree is a testament to the work and dedication she has put in. Furthermore, she does not lie about her parents' work anymore but is proud of their sacrifices and the work it took them to help support her in her dreams. She continued and said,

> I feel like the fact that I have had such like a different upbringing speaks like a lot of volume, and like I have a lot of insight in a way that, like other people don't have. So I feel like I just shifted my mindset to view that as a strength.

She now views her experiences through a paradigm of abundance and strength, recognizing that while her upbringing was more difficult than others, she gained insight and strength from those experiences. Kat also touched on a similar paradigm shift and said,

> It's like changing my perception of what success looks like. But at the same time, like still being really proud of what I've done so far. It's really nice seeing like the journey I've been on, or whatever like, I'm definitely more of a person now than I was when I was 18. But it's like it's weird. It was like, Oh, my God!

In the beginning, success for Kat was getting a job and being financially secure, but as she reflected, she realized that her perspective had completely changed. Success is overcoming and being proud of the growth she has made in the past couple of years. At the end of the quote, she is hit with the realization of how far she truly has come. With the growth she has made, she can not help but feel a strong sense of pride. Similarly, Wendy talks more about the moment of her realization:

> When I looked back at all my four years, I was like, Wow, like, you know, I actually did a lot, and I started from a place that like a lot of my peers didn't start at. And here we are like getting the same degree like doing the same things in life, and I just think about how, like my parents, like this is exactly what they wanted for us. Here I am, like, you know, living their dream. And so yeah, I think it was very emotional for me to just like, look at back at my four years like as a whole.

As observed in interviews with several participants, when asked to reflect on their experiences as a whole, interviewees identified pride as their primary feeling. Unlike earlier responses to questions on feeling out of place and never feeling enough, many participants reflected and saw strength where there was shame earlier. Also, many pointed out the differences between them and their peers; they no longer felt imposter syndrome from their differences, but viewed their adversities as a testament to their resilience. As the interviewees got more involved and deeply engaged in their institution, many found communities of people with similar identities and stories. Additionally, they leaned more on the institutional support systems and resources, all of which created a reflective space to discover more about themselves and transform shame into a source of strength and pride.

Double-Edged Sword of Defining Resilience. While conducting the literature review

for this study, there are a plethora of definitions for resilience. The definition broadly used in the study is the ability to adapt successfully in the face of stress and adversities (Ahern et al., 2006; Brody et al., 2013; Herrman et al., 2011; Wu et al., 2013). At the end of every interview, interviewees were asked to define what resilience means to them. Many followed the same sentiments as the definition utilized. Mckayla defined resilience for herself and said,

> It just means being able to be persistent and like persevere through all, like the burdens and struggles that you face. And I feel like that's what makes everything pay off in the end. I feel like, okay, I am low-income. Okay, I did have to work all these jobs. Okay, like, maybe I didn't like do as well. But I still push myself to like even graduate.. And so I feel like that's just like the beauty of like seeing everything…I think that's like a good embodiment of like resilience, like seeing everybody being successful in spite of like kind of obstacles in our way.

Her definition touches on the various ways FGLI students of color need to adapt by working and making do with the situation handed to them. However, at the same time, she also recognized the beauty of the hard work and energy put into being resilient and successful. Domingo emphasized adaptability and said, “I think being resilient is a lot about adaptability…being resilient is… in the face of a challenge, there is a need to adapt.” When there is a challenge, one needs to adapt to be resilient. Reagan talked about ways she had to adapt and said,

> In high school, like time management was like something that was difficult for me just because of work and everything but like, even now, in like university like I do have like I'm working 2 jobs. I was working 3 jobs at one point.

There was no choice not to work or adapt. Being low-income demanded the need to work to support oneself and survive. Angelica touched on how her resilience can be applied to future

situations and said, “If you're able to overcome any physical, like mentally, emotional, like obstacles that are coming your way, I think that's basically what makes you resilient if you're able to overcome anything…You can conquer the world at that point.” From her perspective, since she had been able to navigate and overcome physical and emotional challenges, she feels a strength in knowing that she can continue being resilient and getting through whatever life sends her way— “conquer the world.” Every interviewee touched on the need to adapt, but some questioned if resilience is even a choice. Julia said,

> I feel like that dichotomy of like those who survive are resilient, those who are not, that feels very much survival of the fittest, and it makes it feel…it feels wrong… It feels like we're blaming those who could not survive for not surviving rather than blaming the conditions that exist that caused them to not survive in the first place.

For Julia, survival is simply a response to unjust conditions, not a reflection of individual resilience or failure. However, society often praises those who are surviving under the broken system while punishing those who are not ‘resilient.’ She further explains her perspective:

> I feel like resiliency makes it feel like we have a choice to say in the actions that we take when facing adversity. So, for example, whenever I'm thinking about the children that were immigrating from Venezuela moving up into the U.S…it was either death or a possible chance of a better life. And at some point, I was like, is that truly a choice anymore…Is it really our choice to be resilient? Or is that really a label that's being put on us by Academics to just see us that way…If you think about a cactus in a desert, I don't think it sees itself as resilient. I think it just has to do what it has to do to live in what in the conditions that it is in…resiliency implies a choice, and I think in my case, I had some choices like, especially during my college years. But it wasn't really like my

> family had a choice growing up to figure out what we could and could not do… I feel like sometimes we're not really given a choice; it's either you survive or you die. And is that really a choice to begin with?

Her example of Venezuelan immigrants or the cactus highlights the lack of active decision and a forced response to the environment and situation people are in. When comparing that to the lived experiences of FGLI students of color, resilience may not be an option— it is a necessity. Julia's critical reflection highlights systemic injustices, and when academia labels marginalized individuals as 'resilient,' it may ignore the structural inequities that necessitate and exacerbate the issues in the first place. Furthermore, the praise of survival can obscure the deeper issues of a broken system that disproportionately harms those unable to adapt. Surabhi also touched on the absence of choice and said,

> I'm not resilient…it's not necessarily easy to give up because I don't really have the chance to. And so in that case, it's kinda easy to just get through something, or just like know that you have to get through something. Even if it's the bare minimum.

Reinforcing Julia's perspective, Surabhi talks about how they do not have the choice to give up. Without the freedom of choice, there is no option except to make do with the situation and get through it "even if it's the bare minimum." Surabhi continued their critical reflection and said,

> Some struggles feel like a part of the thing that you're supposed to go through… technically like taking care of your siblings is something that I feel like I was bound to do, and that technically shouldn't count towards my resilience…That's something that just came as part of the package that doesn't count towards your resilience.

Surabhi discussed how taking care of their family, working multiple jobs, and juggling classes at the same time should not count towards being resilient. Unlike Julia, Surabhi implies that the

concept of resiliency is a choice to be made. However, in their situation, they did not have a choice; therefore, they are not resilient. They are simply doing what they are supposed to. The difference between the two critiques is how they conceptualize resilience. Julia views resilience as a label imposed from the outside, often used to romanticize and praise survival in the face of structural oppression and broken systems. Surabhi, on the other hand, views resilience as a choice, and in the absence of that choice, survival is how they would define adaptation to various adversities. These perspectives reveal the complicated and contradictory nature of how resilience is experienced and conceptualized, especially for FGLI students of color. However, even with the critical analysis of resilience, Julia later reflected and said,

> I feel proud of my own accomplishments. I don't say that a lot about myself…That's something to discuss in therapy. But it makes me feel happier, knowing that, like, with all that uncertainty that started at the beginning like I come out knowing what I wanted, you know. Like, despite all of that, despite all the struggle, like, we're okay and we're here. And I found a way to make life happen.

Even if it was not necessarily a choice to be resilient, when reflecting on her experiences, Julia feels proud and happy about having overcome so many struggles. From a place of uncertainty and struggle, she found a way to ‘make life happen’ and discover her passions, ambitions, and grow as a person in the process. Overall, interviewees had a sense of deep pride in themselves for having achieved what once seemed unachievable. By reframing and shifting paradigms to recognize their strength and resilience, interviewees reclaimed their narratives beyond mere survival. By acknowledging their growth, adaptability, and perseverance, they were able to draw meaning from their hardships into a source of empowerment and redefine resilience.

Discussion

Findings

Quantitative Findings

According to the John Henryism Theory, those who exemplify high resilience may suffer under the surface— psychologically and physiologically. The first hypothesis for the study is that the higher the Active Coping and/or Resilience, the lower General Health would be. However, the quantitative findings suggest otherwise. The Pearson Correlations found the various variables to be statistically significantly and positively associated with one another. The findings also highlight evidence for meaningful relationships between all three variables: Active Coping, General Health, and Resilience. While the correlations highlight various relationships between the variables, it does not show the directionality of the relationships. Thus, the correlation cannot determine causation and directionality. For example, whether higher Active Coping and/or Resilience lead to better General Health, or if higher General Health leads to participants engaging in more Active Coping and/or demonstrating higher Resilience.

Contrary to the first hypothesis of a negative correlation, the Pearson correlation indicated a positive, statistically significant correlation between Active Coping and General Health. This highlights the relationship that those who engage in more Active Coping strategies are likely to score higher on General Health outcomes, or vice versa. The relationship is significant, indicating that Active Coping and General Health are positively correlated with one another, and the increase in one variable leads to the increase in the other. These findings align with research revealing that effective coping strategies can mitigate the physical toll of stress, potentially reducing the risk of chronic health conditions (Zimmerman, 2013). Furthermore, as mentioned in the literature review, Orthner et al. (2005) found that in the face of limited

resources and adversities, low-income families displayed creativity in building various strategies or coping mechanisms to overcome poor life conditions. On the other hand, those who have better General Health may have more capacity to develop more Active Coping strategies. With better mental and physical health, individuals can spend more time on thriving by utilizing more active coping mechanisms, moving past mere survival.

Additionally, the study hypothesized that there would be a negative relationship between General Health and Resilience, but the Pearson correlation analyses revealed a positive and statistically significant relationship with a moderate effect size. Resilience may play a buffering or moderating role against risk factors to produce better overall General Health, or vice versa. It seems that those who exemplify high Resilience have higher General Health outcomes. Torsney et al. (2023) make a distinction between Resilience and Active Coping. They mention that, unlike Active Coping, Resilience is often considered a trait that does not sacrifice health for success. Furthermore, Active Coping often masquerades as Resilience since they both predict patterns of behavior, but they are different because coping is a state (situational). Thus, according to Torsney et al. (2022), Resilience is adaptation, while John Henryism/Active Coping is context-bound and hurts in the long term— the steep cost of success is defined as success with stress. This helps explain the slightly larger effect size for the positive correlation between Resilience and General Health compared to Active Coping, since Resilience is not associated with a high cost of stress for success according to Torsney et al. (2022). Additionally, the correlation found between General Health and Resilience shows the importance of Resilience's possible protective impact against negative health outcomes. Additionally, better General Health may provide a better environment and capacity for fostering resilience.

For the second hypothesis, the study hypothesized a positive relationship between Active

Coping and Resilience. The results from the Pearson correlation confirmed the hypothesis, highlighting a strong, positive, statistically significant correlation. These results indicate that the more an individual engages in Active Coping strategies, the higher the levels of Resilience, or vice versa. The correlation highlights the importance of the relationship between Active Coping strategies and Resilience for FGLI students of color to have the ability to succeed in the face of stress and adversities (Ahern et al., 2006; Brody et al., 2013; Herrman et al., 2011; Wu et al., 2013). The positive association highlights that high Resilience may contribute to developing high Active Coping mechanisms to navigate the associated contextual and systemic adversities. Lastly, the very large effect size underscores the likely critical role that Active Coping strategies may have in cultivating more Resilience or Resilience enabling more Active Coping strategies. Additionally, as mentioned before, Active Coping and Resilience are often used interchangeably with little to no distinction between the two concepts (Torsney et al., 2022); this also helps explain the very large effect size between the two variables.

Qualitative Findings

The in-depth interviews and qualitative data were able to go deeper into the nuances and complexities of the lived experiences of FGLI students of color reflecting five major themes: (1) Out of Place: Navigating a Culture Not Built for Us, (2) Never Enough: Overworking & Overachievement, (3) Between Obligation & Autonomy: Complex Role of Family, (4) It Takes a Village: Strength in Shared Identities, (5) Redefining Resilience: Survival to Self-Pride. The study's central research question was investigating what factors foster resilience in FGLI students of color, and qualitative findings provided valuable insights into the multifaceted nature of resilience for this population.

As mentioned earlier, Zimmerman (2013) broke down promotive factors into two types:

assets and resources. Assets refer to factors within individuals, while resources refer to external factors. The assets found within the interviewees were self-efficacy, self-awareness, and adaptability. The resources found were transition programs, institutional support through organizations and programs, peers with similar identities and backgrounds, and family support.

Many of the resiliency assets were developed from the need to adapt. From the beginning themes, 'Out of Place' and 'Never Enough,' interviewees needed to develop that sense of self-efficacy once they started college, since there was no longer a choice to rely on others, such as their parents for answers. Their parents lacked the cultural capital to guide and support them through the new structure and rigor of higher education courses, navigating office hours, and other challenges associated with transitioning to college (Cataldi et al., 2018; Whitley et al., 2018). The lack of cultural capital from parents and families created a sense of 'disconnect' among the interviewees while they struggled to navigate higher education. However, self-awareness was highlighted as the interviewees got more involved with communities and peers of similar backgrounds and had the space and opportunity to reflect on their identities, values, and personal growth from the last two themes— 'It Takes a Village' and 'Redefining Resilience.' Lastly, self-belief emerged as they gained more confidence in their ability to overcome adversity, whether personal, academic, or financial, throughout their higher education experiences.

As for resiliency resources, many systems and people helped support FGLI students of color navigate various obstacles. As highlighted in the interviews, these included family and peer support, student organizations, identity-based centers, accessible mental health care, and transition programs. According to the social identity theory, FGLI students of color can support one another more effectively than others because of their shared internal states, such as attitudes,

feelings, and emotions coming from similar backgrounds and struggles (Hogg & Rinella, 2018). Also, racial socialization or a strong cultural identity can offset the detrimental impacts of John Henryism/Active Coping (Anderson et al., 2019; Torsney et al., 2023). Therefore, identity-based centers can cultivate internal pride in FGLI students of color, serving as a protective and promotive factor. On the other hand, this also explains the 'us versus them' mentality that Kat talked about when sharing her negative interactions and discomfort with non-FGLI students which could be harmful because of the polarizing perspective and mentality, but at the same time, she can find support and belonging in her communities of FGLI students of color. Additionally, while family served as a source of stress at times, the majority of interviewees drew immeasurable strength and support, with many feeling a sense of responsibility to honor their parents' sacrifices or family obligations. According to Zimmerman (2013), families are consistently identified as a critical resource for healthy youth development for a variety of health outcomes.

Highlighted in the last two themes, 'It Takes a Village' and 'Redefining Resilience,' through identity-based centers, the interviewees were able to find spaces that validated their experiences, fostered solidarity, and mutual encouragement. Furthermore, interviewees touched on several formal and informal programming and events that cultivated a sense of belonging. When institutions switched to a culture of asset/strengths-based lens by celebrating FGLI students of color through celebratory events or offering resources and programming, it allowed first-generation students to see themselves as successful and belonging to postsecondary environments (Whitney et al., 2018). This was reflected in Julia's interview when her institution had an entire week of celebratory first-generation events, and she finally felt confident and seen rather than, in her words, 'pitied' for her first-generation status. Additionally, simply having

professors and faculty share their own struggles and experiences with imposter syndrome or being first-generation offers pathways for making connections and cultivating an inclusive space (Whitney et al., 2018); Flores touched on an exact moment during one of her first classes that a professor shared his experiences with imposter syndrome that stuck with her even years later. Many other interviewees touched on several mentors, from peers to professors, who helped support them. Torsney et al. (2022) found that mentors with similar identities who are high in John Henryism/Active Coping are effective buffers to the potential negative impacts of high Active Coping and enabling positive motivational and emotional factors because of the innate understanding of struggle and resilience they have. Other resiliency promotive factors found were similar to those Whitley et al. (2018) found in their report utilizing cohort and networked service approaches, supporting transition programs, and providing proactive versus reactive support. Many of the scholarship programs or transition programs interviewees talked about were cohort-based, providing a community and introduction to various resources before the start of their first semester.

Together, these assets and resources functioned as protective and promotive factors that aided in fostering resilience for FGLI students of color. The individual strengths and assets played a crucial role, and the availability and accessibility to various external supports, along with community building, significantly enhanced the students' ability to thrive in higher education and led to a sense of self-pride.

Convergent Mixed-Methods

Independently, the quantitative and qualitative analyses provided valuable insights, but the integration of both research approaches informs and complicates findings, adding a nuanced perspective to the diverse lived experiences of FGLI students of color.

Being guided by the John Henryism theory (James et al., 1983) and looking at the qualitative themes found from interviews complicates the notion of the positive correlation between Active Coping/Resilience and General Health. The themes of 'Never Enough' and the subtheme 'Double-Edged Sword of Defining Resilience' capture the hidden mental or physical tradeoffs to be resilient. From the interviews, many spoke about their struggles with mental health in the face of academic rigor and a culture not built for them. To meet the standard, many suppressed or overlooked their psychological and physiological needs in pursuit of resilience, which is a maladaptive form of coping. The theme of 'Never Enough' and subtheme 'Early Motivations' highlights a possible drive and motivator for Active Coping; they highlight motivators stemming from internalized pressure to constantly overcome and overachieve to prove one's worth to validate their belonging to their institution and offset the feelings that arise from the theme. While Active Coping/Resilience is usually labeled as a strength, the qualitative themes revealed that Active Coping/Resilience was often tied to struggles with imposter syndrome, survival mentality, burnout, and external validation. However, by adapting by increasing Active Coping strategies to fight feelings of not feeling enough, participants could develop Resilience and improve General Health concurrently, explaining the strong positive correlation between all three variables.

This finding may not be as confusing as it may seem. The world is filled with dichotomies and polarities that can cloud the understanding of everyday struggles. In other words, people may be seen as weak or dependent in some cases within particular cultural groups, but as individuals, somewhere, somehow, find strength and resilience to accomplish their goals and rise beyond the limits of these dichotomies. Rather than labeling an individual as resilient or not resilient, the findings reveal more subtleties to this notion. Humans are much more complex,

and rather than two-sided polarities, with an interconnecting web of various variables that are difficult to untangle. As seen in the last subtheme of the “Double-Edged Sword of Resilience” and the positive correlation between Active Coping/Resilience and General Health, Resilience is complex and has negative and positive consequences.

Similar to Torsney et al.’s (2023) findings, the study’s themes highlight that “high-effort coping required for educational attainment, a precursor to higher economic class, is paradoxical: it can be psychologically beneficial but at a physiological cost for historically underrepresented minorities” (p. 701). For many interviewees, they spoke about the need to “do as much as possible” or viewed higher education as the only route to success and better opportunities. Thus, in Teddy’s case, they were willing to “stomach” more semesters for the “sake of their goals” and to make a “more meaningful impact.” This mentality reflects the paradox of higher education for many marginalized students; as Torsney et al. (2023) mention, educational attainment is paradoxical, with success coming at the cost of stress, yet higher education is often viewed as the only vehicle for success, with more opportunities for a better life.

Moreover, Torsney et al. (2022) explain that John Henryism or Active Coping is masquerading as Resilience and differentiates them by explaining that Resilience is adaptation while Active Coping is context-bound/situational. Their similarities in predicting externalizing behavior would explain the very large effect size of the positive correlation between Active Coping and Resilience from the survey data, with both constructs often being seen as the same. Anecdotes critiquing the definition and implied active choice of the word ‘resilience’ from interviewees further highlight the struggles tied to the word, reflecting that Torsney et al. (2022) differentiation may apply to the interviewees' perspective and experiences. As mentioned before, Torsney et al. (2022) describe John Henryism/Active Coping as paradoxical, with behaviors that

lead to success in the face of negative stressors costing General Health. Resilience and Active Coping places the burden on the individual, not the system that nests the individual, which can be problematic when thinking of interventions and supports for marginalized populations.

Furthermore, while the study hypothesized that Active Coping/Resilience would have a negative association with General Health, the interviews illuminate promotive factors that may have moderated the detrimental health consequences. While Active Coping/Resilience may seem individualistic and innate, many interviewees touched on finding support and resiliency through family, a community of peers with similar identities, mentorship, and institutional support. The resilience assets and resources found in the themes shed light on protective factors for high Active Coping and Resilience, showing that they are not individual traits, but a process shaped by structural, cultural, and social forces that help support and cultivate strengths within the individual. As Zimmerman (2013) writes, promotive factors can interact with one another to protect the individual against the negative effects of risk. To provide another perspective, these could have contributed to the positive correlation between Active Coping/Resilience and General Health, even in the face of the adversities and internalized struggles mentioned earlier. The last three themes centralize family, peers, and institutional supports as the main positive impacts that served as a buffer against imposter syndrome, survival mentality, and external validation while promoting self-growth and self-pride.

Implications

The mixed methods integration expands and complicates the findings but also captures the diversity and complexity of struggles, strengths, and nuances of FGLI students of color, providing many insights into what supports and resources should be funded and cultivated on the personal and institutional level. To answer the study's main research question of what fosters

resilience in FGLI students of color, on a personal level, peers with similar backgrounds and identities, family support, and mentorship through programs, organizations, or professors. On the institutional and systemic level, support is found through celebrating the label and strengths of being FGLI and a student of color, providing safe spaces for students to find solidarity, accessible and affordable mental health services, and overall, creating a sense of belonging for a diverse student body.

Around 50% of undergraduate students are first-generation, with 24% also being from low-income backgrounds. Also, completion rates remain stubbornly low for first-generation students, and 65% of all jobs require some level of postsecondary education (Engle & Tinto, 2008; Whitney et al., 2018; RTI International, 2023). Additionally, college graduates earn 64% more than those with only a high school degree, and a higher education correlates with better health, greater civic participation, and more tax dollars (Whitney et al., 2018). FGLI students of color are marginalized and underrepresented. Without tailored support and resources, students may falter under the stressors mentioned during the interviews— imposter syndrome, burnout, never feeling like they are doing enough, overachievement and overworking, mental health struggles, etc.

There needs to be a shift in college culture to value and recognize the strengths of FGLI students of color rather than painting this population with a deficit lens who are ‘at-risk.’ As Whitney et al. (2018) write, institutions need not only a culture shift but also to implement proactive, not just reactive, systems to provide support. By instilling a sense of pride and belonging early on, students can embrace their first-generation status earlier and are more likely to ask for support when needed. Commonly, first-generation students are hesitant to seek support until an issue arises, which allows room for issues to exacerbate over time rather than tackling

them head-on and nipping them in the bud (Whitney et al., 2018). Furthermore, recognizing strengths and listening to the voices of FGLI students of color while acknowledging the health detriments of high Active Coping or Resilience ensures a necessary step towards fostering equity and true educational access for FGLI students of color to gain the necessary education, skills, and social capital to have economic mobility for long-term success without the variety of potential health detriments. Lastly, utilizing Zimmerman's (2013) Resiliency Theory centers promotive factors that cultivate and become the focus of change to enhance strengths for FGLI students of color, offering some beginning of a blueprint for providing and enhancing supports for marginalized students.

Limitations

Although the study recruited a reasonable number of participants for the quantitative analyses, the sample size remained relatively small and less representative for statistical analyses. The smaller sample size for the quantitative analyses increases the probability of Type I and II errors, poor generalizability, misleading effect sizes, less robust statistical assumptions, lack of confidence in results, etc. An increase in sample size would have increased reliability and validity. Also, the cross-sectional design produces causal interpretations of the relationships and correlations between the three variables, with no clarification about the directionality of the correlations found.

Additionally, the study recruited the majority of participants through QuestBridge partner schools, which consist only of prestigious, top-ranked colleges and universities in the United States. This further decreases its generalizability to many other FGLI students of color who may not have the privilege of attending a prestigious, well-known university and the associated support networks, resources, and supports they offer. Participants attending these higher-ranked

institutions may be afforded more resources and support than other FGLI students of color at other institutions that do not have as much funding and resources for marginalized students. Also, the study relied heavily on convenience sampling and snowball recruiting for participants, which may have introduced bias and potentially limited the diversity of perspectives within the sample.

Furthermore, the differences in grade levels became apparent during the interviews and analysis of the transcripts afterward. Younger students versus older students in higher grade levels varied in the depth of their reflection and current mentality regarding academics, growth, and resilience. Younger interviewees tended to be more focused on burnout and how hard their academic journey has been, while older interviewees had the perspective to feel emotions of pride when looking at what they have accomplished. More time at the participants' respective institutions reflected in their mentality and reframing of their experiences and upbringing.

Lastly, this research study was based on the John Henryism theory, which, in many studies, examined the underlying, hidden biological markers to examine the health impacts of Active Coping and Resilience. Due to limited funding and time, the study did not have access to the biological aspects, thus, a General Health survey was utilized to attempt to capture overall health. The study relied on self-reported General Health rather than objective biological measures, unlike other studies that have investigated the John Henryism theory, measuring blood pressure, cortisol levels, or other markers to quantify the physical toll of Resilience. This study hypothesized that higher Active Coping/Resilience would correlate to lower General Health, but without biological data, this study could only assess perceived General Health, which may not align with measurable physiological health markers.

Future Directions

This research study addresses whether high Active Coping/Resilience impacts General Health, along with identifying promotive factors that cultivate Resilience in FGLI students of color. For future directions, future studies could collect and analyze biological samples (i.e., saliva, blood, neuroimaging, etc.) to get at the underlying biological impacts to investigate the research question further. Additionally, with more time and funds, a larger sample size along with a more extensive, longitudinal study allows more statistical analyses for further insight into the directionality and mechanisms underlying these correlations and group differences based on various demographic information. Moreover, after graduation, participants will continue navigating the workforce and adulthood with the associated risks of various identities. Thus, further exploration is needed to examine how these relationships evolve over time in the face of ongoing adversity. Lastly, an investigation into the different Active Coping mechanisms could highlight which specific coping strategies are most effective in playing a moderating role in protecting General Health outcomes and increasing Resilience in the face of different adversities. Further research is needed to understand the directionality and specific dynamics between the variables to inform the development of early intervention and support to empower marginalized youth in overcoming adversity and achieving better health outcomes.

Conclusion

The findings of this study provide valuable information by highlighting the relationships between Active Coping, General Health, and Resilience for first-generation, low-income students of color in the United States. Additionally, it investigates the differences between John Henryism's Active Coping versus Resilience, which interviewee Julia critiqued as “Survival of the fittest” with a lack of active choice. The study reveals the role each variable has on one

another, with every correlation showing a statistically significant and positive relationship, along with the nuances, complexities, and diverse lives of the interviewees from the qualitative analyses. Contrary to the first hypothesis, there was a positive relationship between Active Coping/Resilience and General Health, suggesting the protective factor Active Coping/Resilience may play in the face of adversities associated with low SES, lack of resources, and/or racial discrimination. Alternatively, better General Health may cultivate an environment conducive to fostering Resilience and engaging in Active Coping strategies. However, as mentioned, the themes of 'Out of Place,' 'Never Enough,' and 'Between Obligation & Autonomy' tell a different narrative of struggles and adversities while navigating higher education institutions. On the other hand, the same theme 'Between Obligation & Autonomy', along with the last two themes, 'It Takes a Village' and 'Redefining Resilience,' highlights promotive and potentially protective factors that may moderate the health detriments of high Active Coping/Resilience in the face of overwelming stressors, explaining the positive correlation with General Health.

Overall, the data underscores the importance of fostering healthy Active Coping strategies and Resilience while supporting external promotive factors and nurturing General Health to support the well-being of marginalized populations. Additionally, to support FGLI students of color, there is a need to be a culture shift to reframe to an assets/strengths-based approach, continued investment for identity-based centers and programming, formal and informal support systems, and tailored resources for FGLI students of color to thrive. These findings emphasize the interconnected nature of psychological resilience and the holistic, diverse approaches needed to address the diverse range of adversities. The study extends beyond individual resilience but calls for systemic change. The burden should not fall upon the

individual, but on the broader system that nests and shapes the individual. Future research and institutional efforts should continue to support FGLI students of color, ensuring that resilience is not just a means of survival but a pathway to sustainable success and thriving.

Appendix

Appendix A: Assumption Testing Figures

Figure A1

Active Coping Histogram

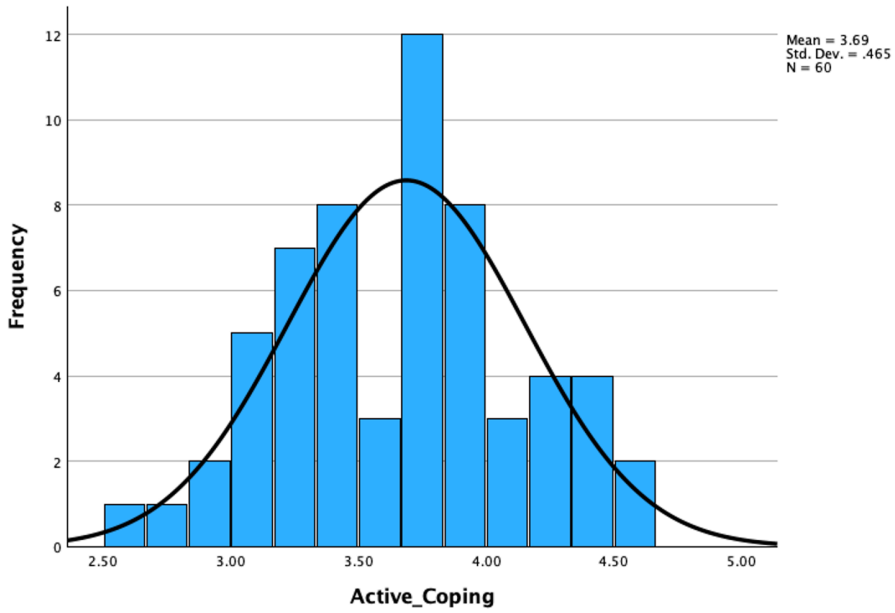


Figure A2

Active Coping P-P Plot

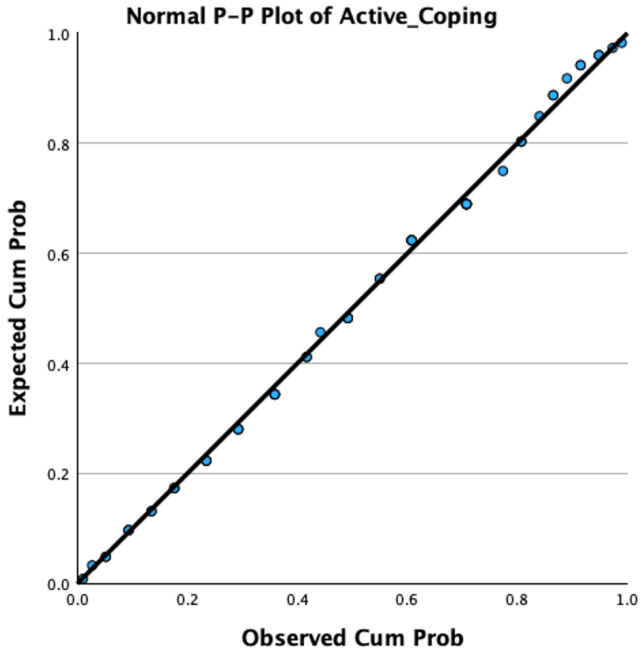


Figure A3

Active Coping Boxplot

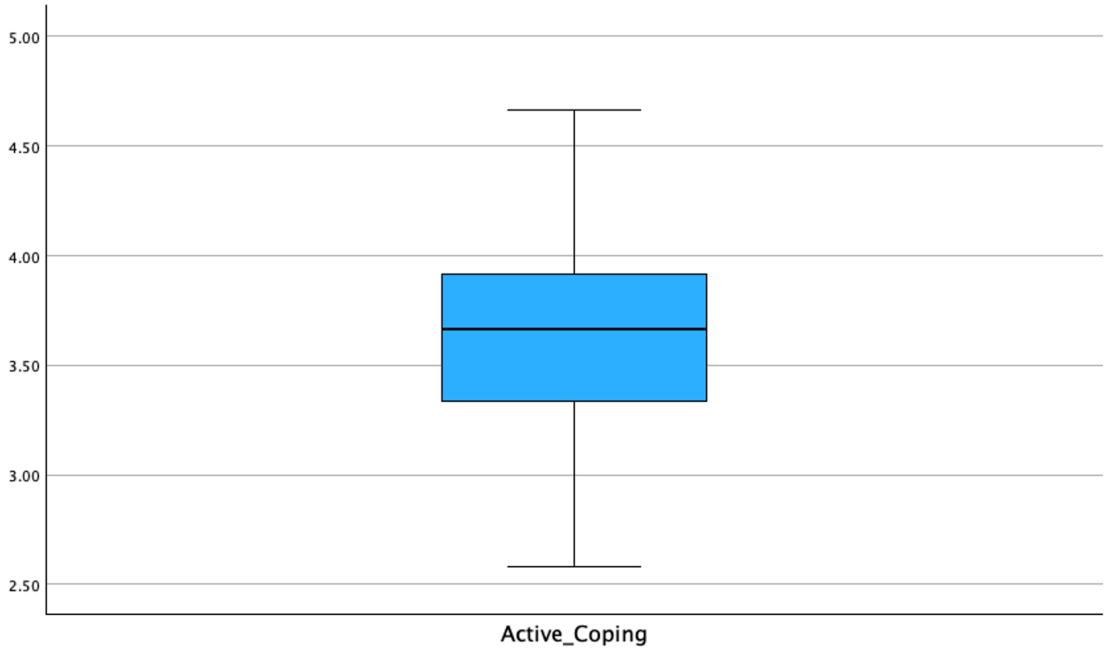


Figure A4

General Health Histogram

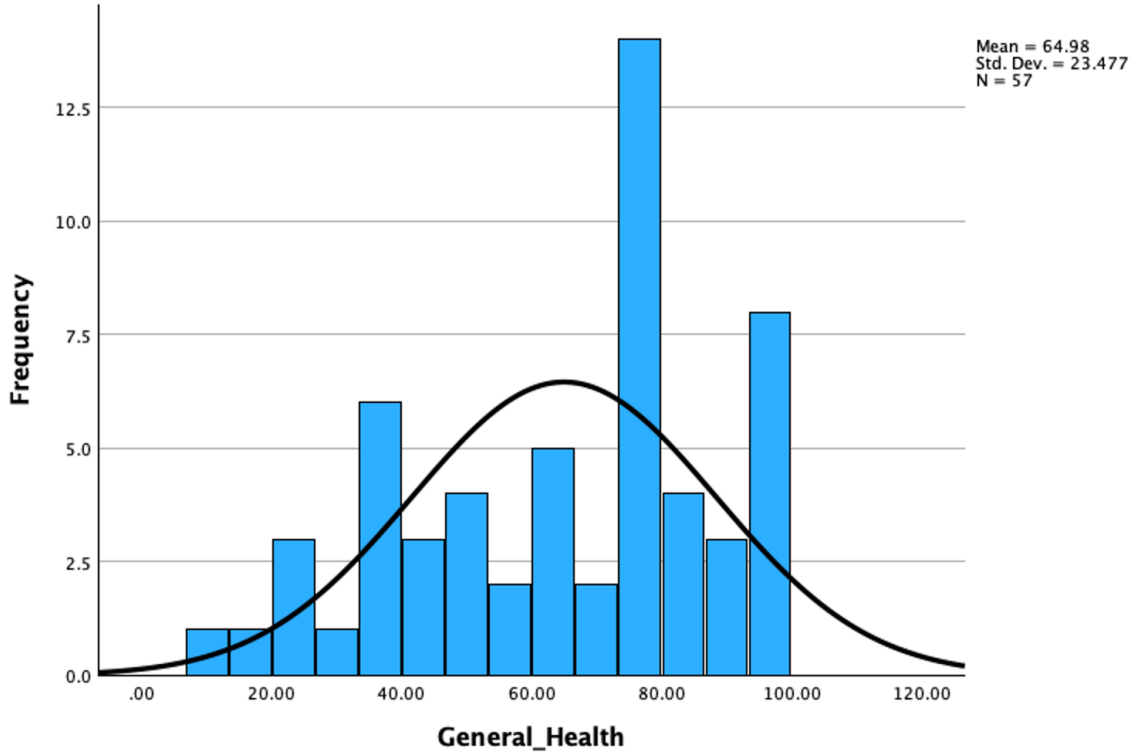


Figure A5

General Health P-P Plot

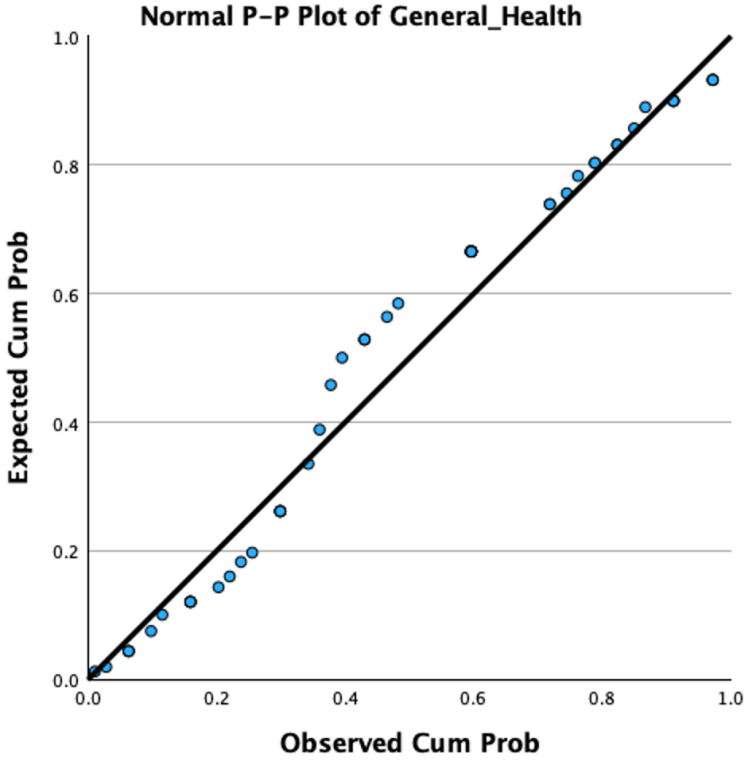


Figure A6

General Health Boxplot

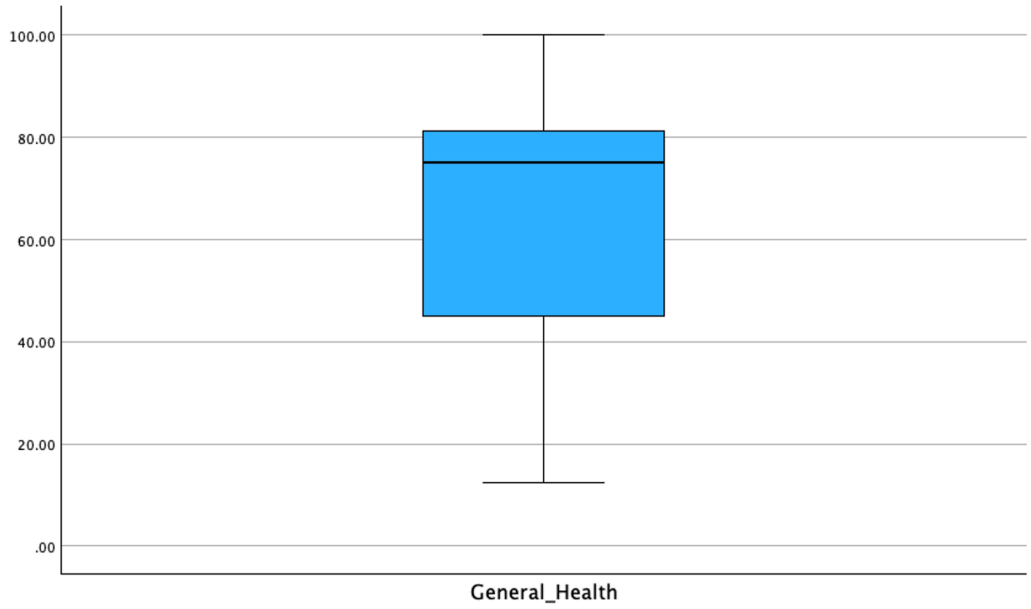


Figure A7

Resilience Histogram

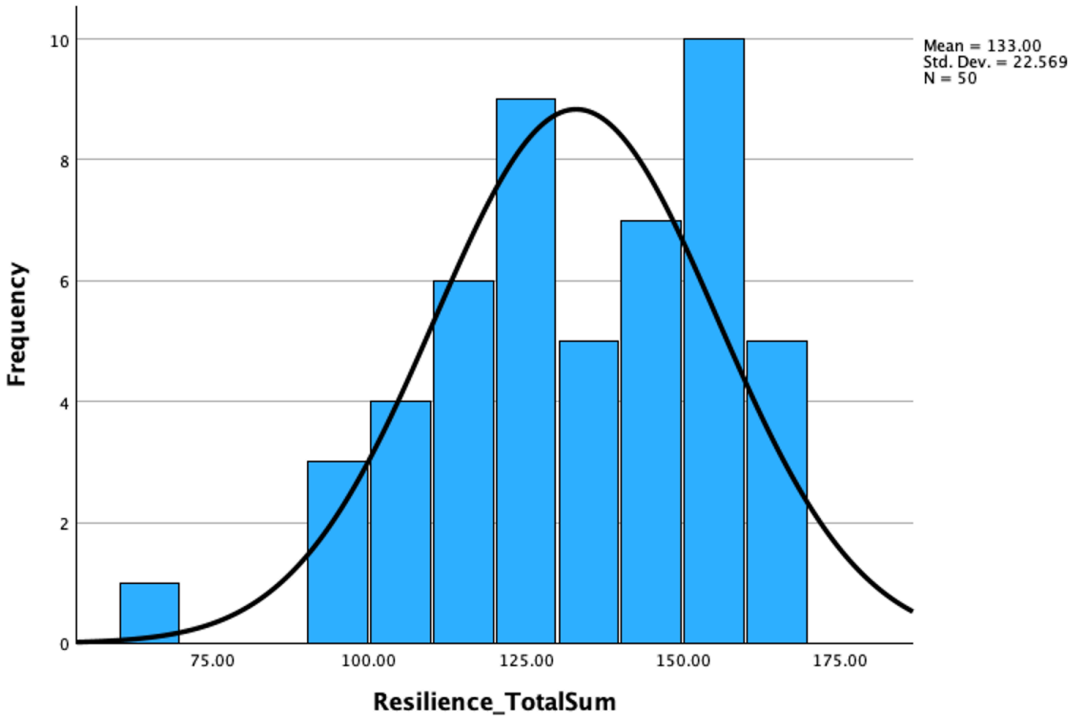


Figure A8

Resilience P-P Plot

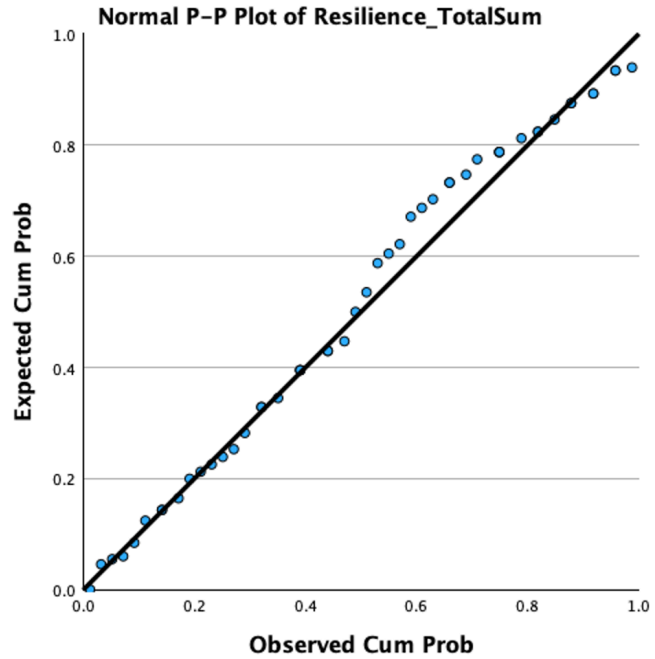


Figure A9

Resilience Boxplot

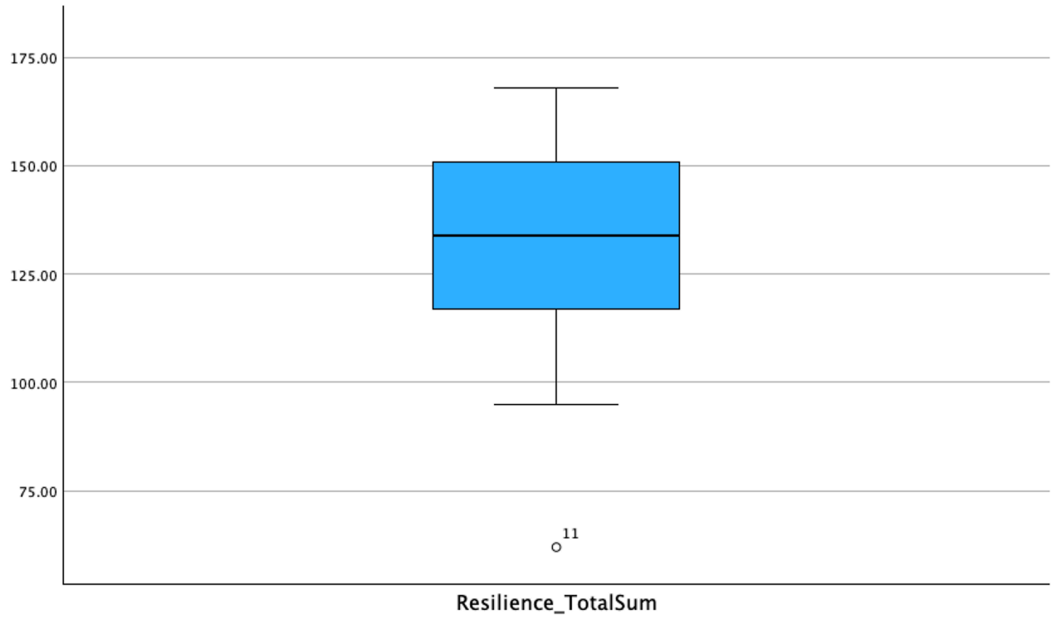


Table A10

Descriptive Statistics of Variables

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Active_Coping	60	2.58	4.67	3.6870	.46481	.216	.039	.309	-.345	.608
General_Health	57	12.50	100.00	64.9781	23.47671	551.156	-.447	.316	-.785	.623
Resilience	49	95.00	168.00	134.4490	20.31734	412.794	-.186	.340	-.990	.668

Appendix B: Pearson Correlation

Table B1

Correlation Table of Variables

		Active_Coping	General_Health	Resilience
Active_Coping	Pearson Correlation	1	.303*	.720**
	Sig. (2-tailed)		.022	<.001
	N	60	57	49
General_Health	Pearson Correlation	.303*	1	.399**
	Sig. (2-tailed)	.022		.005
	N	57	57	49
Resilience	Pearson Correlation	.720**	.399**	1
	Sig. (2-tailed)	<.001	.005	
	N	49	49	49

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

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

Table B2

Confidence Intervals for Correlations

			95% Confidence Intervals (2-tailed)[a]	
	Pearson Correlation	Sig. (2-tailed)	Lower	Upper
Active_Coping - General_Health	.303	.022	.046	.522
Active_Coping - Resilience	.720	<.001	.551	.833
General_Health - Resilience	.399	.005	.132	.611

[a]. Estimation is based on Fisher's r-to-z transformation.

Figure B3

*Scatterplot for Active Coping * General Health*

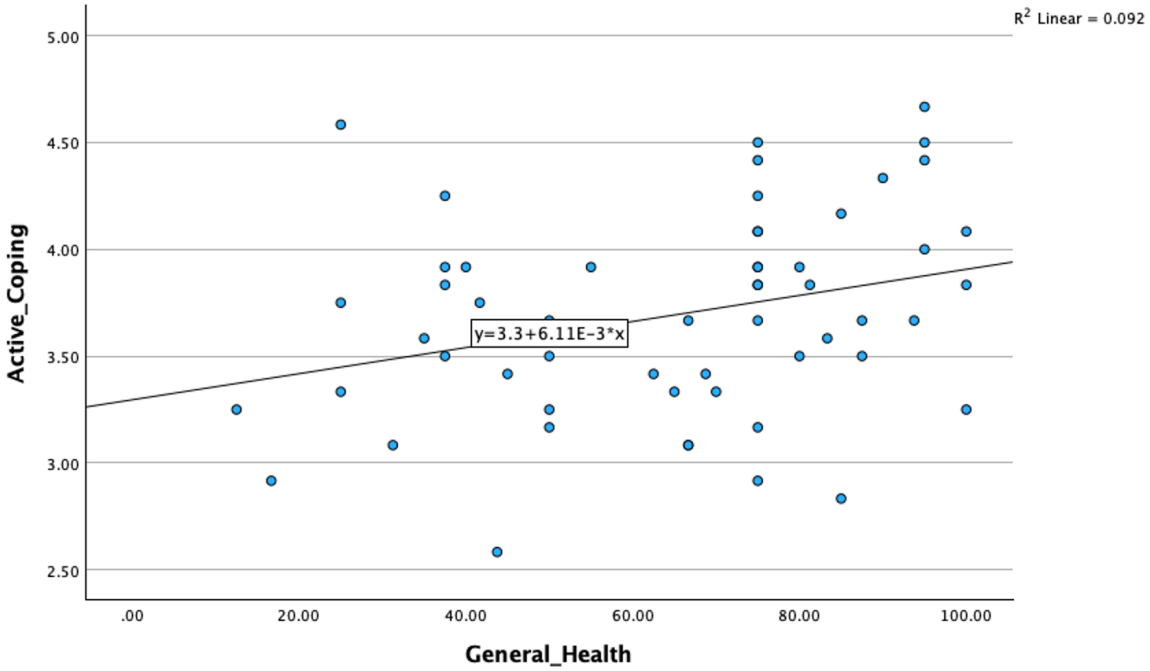


Figure B4

*Scatterplot for Active Coping * Resilience*

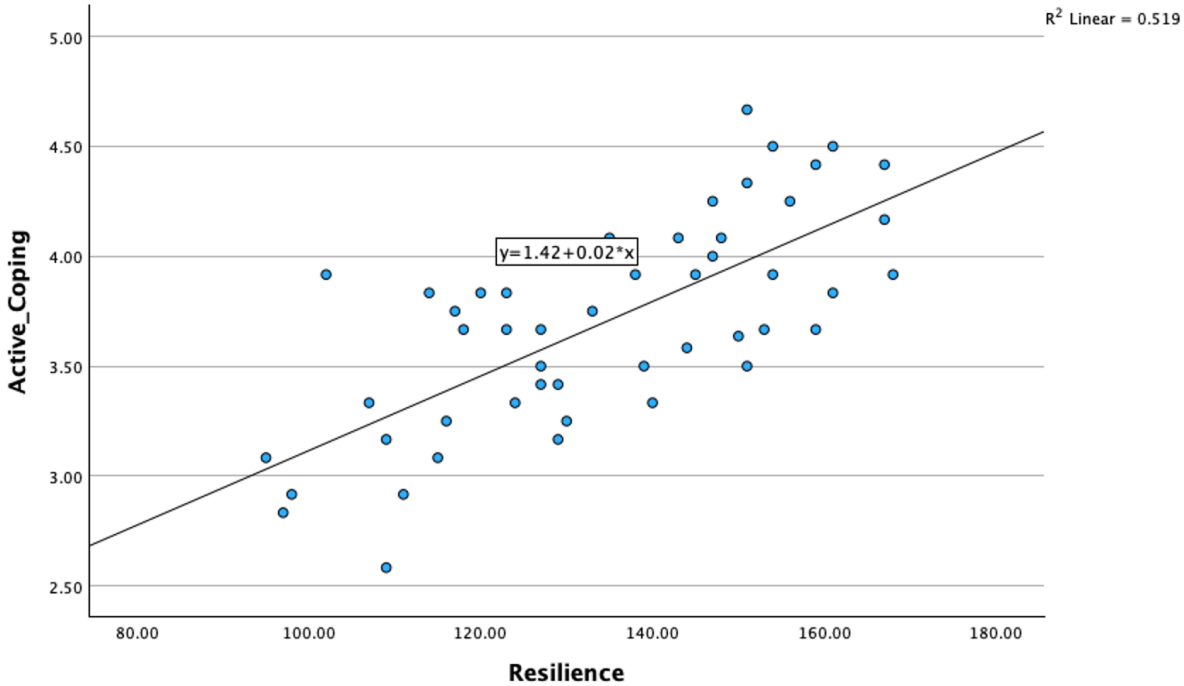
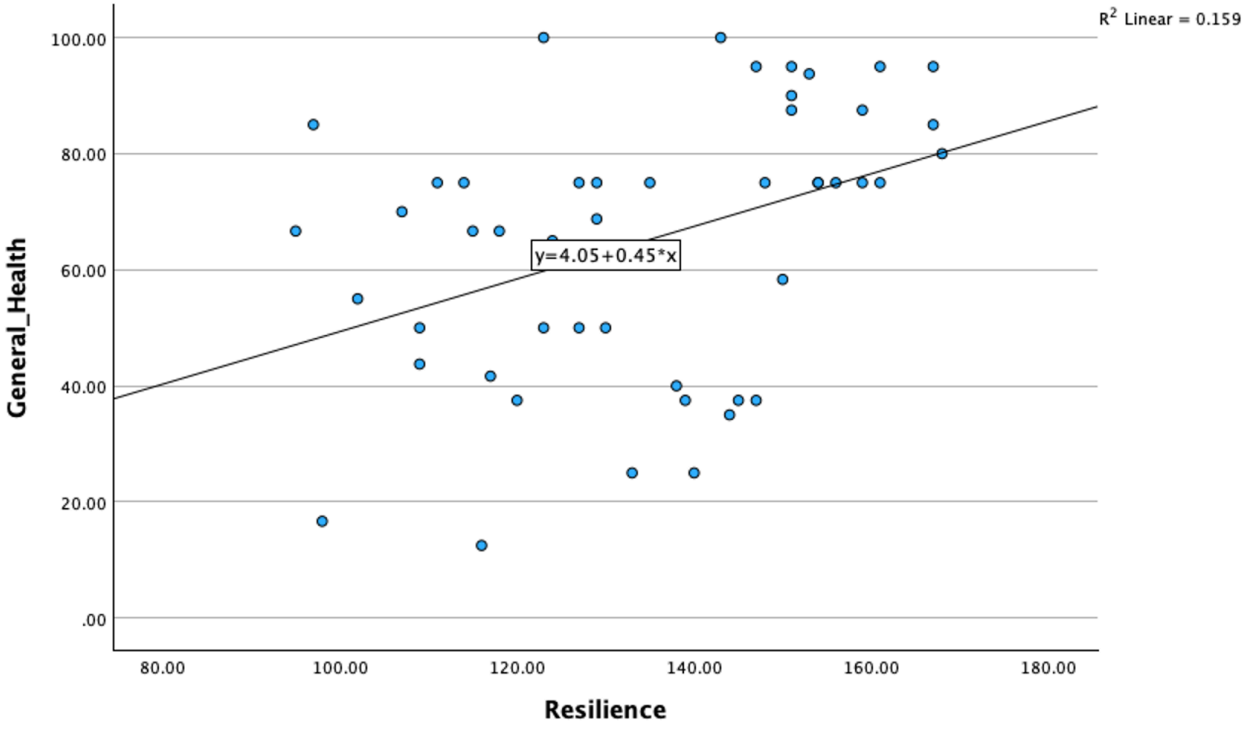


Figure B5

*Scatterplot for General Health * Resilience*



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