Black Women College Students, Impostor Phenomenon, Stereotypes, and Mental Health: A Mixed-Methods Approach

Lincoln Hill

Follow this and additional works at: https://ecommons.luc.edu/luc_diss

Part of the Counseling Psychology Commons

Recommended Citation
https://ecommons.luc.edu/luc_diss/3796

This Dissertation is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Dissertations by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.
Copyright © 2020 Lincoln Hill
LOYOLA UNIVERSITY CHICAGO

BLACK WOMEN COLLEGE STUDENTS, IMPOSTOR PHENOMENON,
STEREOTYPES, AND MENTAL HEALTH:
A MIXED-METHODS APPROACH

A DISSERTATION SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

PROGRAM IN COUNSELING PSYCHOLOGY

BY
LINCOLN HILL
CHICAGO, IL
AUGUST 2020
ACKNOWLEDGMENTS

Firstly, I want to thank my parents, Mr. and Dr. Hill, for their unwavering love and their continuous and enthusiastic support of me no matter how lofty my goals. Thank you to my brother, Tailor, who is always the first to congratulate me on every new milestone and to express his pride about my accomplishments. Thank you to my grandmother and my late grandfather whose prayers and check-ins have lifted me and protected me throughout my life. Thank you to my amazing best friends, Jennifer and Kiera, who have facilitated many opportunities for me to both laugh and cry along this journey despite the miles of distance between us. To my partner, André, thank you for always showing up for me and the many pep talks and consistent words of affirmation as I navigated this final project.

Thank you to my incredible advisor and chair, Dr. Elizabeth Vera. I am so grateful that I have had this opportunity to learn from you. I appreciate your faith in me and your many supportive words throughout the years, but especially throughout this dissertation process. You are the definition of a faculty advocate and I can always depend on you. To my committee members, Drs. Wu and Kelly, thank you so much for offering your incredible expertise to me and my project. I feel incredibly grateful about having shared this experience with a committee comprised of amazing women of color faculty members.

I am deeply humbled by all this journey has granted me and I am inspired and awed by the support I have received from my community that has grown exponentially since beginning my doctoral process.
To my always supportive family and friends and the Black girls and women desiring to see more of themselves represented in academia
Put my heart and soul into this, y’all. I hope you feel me. From where I am, to wherever you are.
I mean that sincerely.

— Mos Def
# TABLE OF CONTENTS

ACKNOWLEDGMENTS iii

LIST OF TABLES ix

LIST OF FIGURES x

ABSTRACT xi

CHAPTER ONE: INTRODUCTION 1
   The Impostor Phenomenon 2
   Gender and the Impostor Phenomenon 3
   Black Women College Students and the Impostor Phenomenon 4
   Stereotypes and Impostor Phenomenon 5
   The Proposed Study 6

CHAPTER TWO: REVIEW OF LITERATURE 8
   The Impostor Phenomenon 8
   The Initial Study 8
   The Impostor Phenomenon and Black Students 11
   Mental health 12
   Racial and ethnic identity 12
   The Impostor Phenomenon and Black Women College Students 14
   Gendered Racism and Intersectionality 16
      Gendered Racism, Intersectionality, and Mental Health Implications 19
   Stereotypes and Black Women 20
   Stereotype Threat 22
      Mechanisms of Stereotype Threat 22
      Differential Risk 24
      The Impostor Phenomenon and Stereotype Threat 26
   Summary and Critique 28

CHAPTER THREE: METHODS 30
   Study One 30
   Participants 30
   Measures 31
      Demographic Questionnaire 31
      Predictor: Susceptibility to Group Stereotype Endorsement 31
         Susceptibility to group stereotype endorsement 31
      Mediator: Impostor Beliefs 33
         Impostor phenomenon 33
      Outcome: Mental Health 34
         Mental health 34
   Procedure 35
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Analysis</td>
<td>36</td>
</tr>
<tr>
<td>Preliminary Analysis</td>
<td>36</td>
</tr>
<tr>
<td>Main Analysis</td>
<td>36</td>
</tr>
<tr>
<td>Study Two</td>
<td>37</td>
</tr>
<tr>
<td>Participants</td>
<td>37</td>
</tr>
<tr>
<td>Measures</td>
<td>38</td>
</tr>
<tr>
<td>Daily Diary</td>
<td>38</td>
</tr>
<tr>
<td>Daily Diary of Impostor Beliefs</td>
<td>38</td>
</tr>
<tr>
<td>Procedure</td>
<td>42</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>42</td>
</tr>
<tr>
<td>Qualitative Data Analysis</td>
<td>42</td>
</tr>
<tr>
<td>Quantitative Data Analysis</td>
<td>44</td>
</tr>
<tr>
<td><strong>CHAPTER FOUR: RESULTS</strong></td>
<td>45</td>
</tr>
<tr>
<td>Study One</td>
<td>45</td>
</tr>
<tr>
<td>Preliminary Analyses</td>
<td>45</td>
</tr>
<tr>
<td>Missing Values</td>
<td>45</td>
</tr>
<tr>
<td>Exploratory Factor Analysis</td>
<td>48</td>
</tr>
<tr>
<td>Correlations</td>
<td>51</td>
</tr>
<tr>
<td>Main Analysis</td>
<td>52</td>
</tr>
<tr>
<td>Mediation analysis: Depression</td>
<td>52</td>
</tr>
<tr>
<td>Mediation analysis: Anxiety</td>
<td>52</td>
</tr>
<tr>
<td>Study Two</td>
<td>53</td>
</tr>
<tr>
<td>Core Elements</td>
<td>56</td>
</tr>
<tr>
<td>Negative Classroom Experiences</td>
<td>56</td>
</tr>
<tr>
<td>Concerns About Others’ Perceptions of Their Competence</td>
<td>59</td>
</tr>
<tr>
<td>Viewing Self and Abilities Negatively</td>
<td>63</td>
</tr>
<tr>
<td>Negative Experiences with Authority</td>
<td>65</td>
</tr>
<tr>
<td>Summary</td>
<td>67</td>
</tr>
<tr>
<td>Study Two: Quantitative Data</td>
<td>67</td>
</tr>
<tr>
<td><strong>CHAPTER FIVE: DISCUSSION</strong></td>
<td>71</td>
</tr>
<tr>
<td>Hypothesis 1: Mediation Analyses – Depression and Anxiety</td>
<td>71</td>
</tr>
<tr>
<td>Hypothesis 2: Contextual Predictors for Impostor Beliefs</td>
<td>74</td>
</tr>
<tr>
<td>Implications</td>
<td>78</td>
</tr>
<tr>
<td>Implications for Clinical Practice and Training</td>
<td>78</td>
</tr>
<tr>
<td>Implications for Policy and Prevention</td>
<td>79</td>
</tr>
<tr>
<td>Limitations and Future Research</td>
<td>82</td>
</tr>
<tr>
<td>Limitations</td>
<td>82</td>
</tr>
<tr>
<td>Future Research</td>
<td>84</td>
</tr>
<tr>
<td>Conclusion</td>
<td>85</td>
</tr>
<tr>
<td><strong>APPENDIX A: CONSENT FORMS</strong></td>
<td>87</td>
</tr>
<tr>
<td><strong>APPENDIX B: MULTI-THREAT SCALE</strong></td>
<td>92</td>
</tr>
</tbody>
</table>
APPENDIX C: CLANCE IMPOSTOR PHENOMENON SCALE 95
APPENDIX D: MENTAL HEALTH INVENTORY 98
APPENDIX E: DEMOGRAPHIC QUESTIONNAIRE 101
REFERENCE LIST 103
VITA 115
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 1. Study One Demographic Information</td>
<td>31</td>
</tr>
<tr>
<td>Table 2. Demographics of Study Two Participants</td>
<td>40</td>
</tr>
<tr>
<td>Table 3. Pattern Matrix for Original 12 Items</td>
<td>45</td>
</tr>
<tr>
<td>Table 4. Pattern Matrix for 10 Retained Items</td>
<td>45</td>
</tr>
<tr>
<td>Table 5. Correlation Matrix, Means, Standard Deviations, Skewness and Kurtosis</td>
<td>46</td>
</tr>
<tr>
<td>Table 6. Selective, Axial, and Initial Coding</td>
<td>48</td>
</tr>
<tr>
<td>Table 7. Means and Standard Deviations for Proportion for Dependent Variables</td>
<td>59</td>
</tr>
<tr>
<td>Table 8. Regression Table for Number of Incidents (Frequency) and Characteristics of Triggering Events as Predictor</td>
<td>60</td>
</tr>
<tr>
<td>Table 9. Regression Table for Proportion of Intensity and Number of Incidents (Frequency) as Predictor</td>
<td>60</td>
</tr>
</tbody>
</table>
LIST OF FIGURES

Figure 1. Hypothesized Mediation Analysis 29
Figure 2. Summary of Missing Values 46
Figure 3. Relationship Between Core Categories 61
ABSTRACT

The present research project expands on impostor phenomenon (IP) literature by incorporating an intentional intersectional framework using two studies to determine if IP mediates (explains) the relationship between group stereotype threat susceptibility and mental health outcomes for Black women college students attending predominantly White institutions. By including a diary study to ascertain the frequency, intensity, and triggers for impostor beliefs, this project provides support for context dependent impostorism. It provides clarification around what types of situations precede the endorsement of heightened impostor beliefs for Black women college students. This project answers the following research questions amongst a sample of Black women college students attending predominantly White institutions: 1) Do global impostor feelings mediate the relationship between the endorsement of group stereotypical beliefs and mental health outcomes? and 2) Utilizing a diary study methodology, does situational context (race, gender, status of those involved, and number of those involved) influence event-contingent endorsement of impostor beliefs? Findings from the first research question indicate that impostor beliefs mediate (explain) the relationship between increased endorsement of group stereotypical beliefs and anxiety (partial mediation) and depression (full mediation). For the second research question, a grounded theory analysis found four themes related to events that trigger impostor beliefs for this student sample: Negative Classroom Dynamics, Concerns About Others’ Perceptions of Their Competence, Viewing Self and Abilities Negatively, and Negative Experiences with Authority. Findings for the second research question also indicate that increased frequency of impostor belief events was related to a higher proportion of emotional intensity. Regarding characteristics of the triggering impostor belief events, only events that included eleven or more individuals were associated with increased frequency of impostor belief triggering events.
Due to centuries of racial oppression and exclusion from predominantly White institutions (PWIs), Black students encounter unique experiences in mixed-race educational spaces that vastly differ from their White counterparts (Ancis, Sedlacek, & Mohr, 2000). Such experiences include perceived racial discrimination (Prelow, Mosher, & Bowman, 2006), racial stereotype awareness (Steele & Aronson, 1995), microaggressions (Sue, Capodilupo, & Holder, 2008), and minority status stress (McClain et al., 2016). Consequently, researchers and administrators are tasked with identifying factors that contribute to and hinder success and wellbeing for this student demographic. Decades of counseling psychology literature has focused on better understanding the Black college student population by exploring how race influences various outcomes related to educational settings such as academic achievement (Steele & Aronson, 1995), sense of belonging (Walton & Cohen, 2007), and associated mental health (Barr & Neville, 2014).

In recent years, many counseling psychologists have questioned whether or not race also influences the experiences of Black students who are objectively high-achieving, yet harbor beliefs of fraudulence (Cokley, McClain, Enciso, & Martinez, 2013; Cokley et al., 2017; McClain et al., 2016). This concept, known as the impostor phenomenon, occurs when students are competent and successful, but have difficulty internalizing their successes (Clance & Imes, 1978). Studies confirm a racialized aspect of impostorism, suggesting that awareness of
stereotypes and feelings of otherness likely contribute to the phenomenon’s occurrence amongst Black students and other racial minorities attending predominantly White institutions (Cokley et al., 2017). Though these hypotheses are theoretically sound, future research might benefit from shifting towards empirically identifying situational and contextual factors that predict impostor beliefs amongst this population.

While researchers and college administrators are growing increasingly more interested in learning about the racialized aspects of psychological constructs and their impact on Black students’ health, few studies have explored the gendered racialized aspects of psychological constructs such as the impostor phenomenon. Regarding the Black student population, most literature conflates the experiences of Black men students and Black women students (Cokley, 2001). This researcher is only aware of one published psychological study that distinctly explores the experiences of Black women students who encounter the compounded effects of both racism and sexism on college campuses and how this intersection impacts impostor beliefs (Bernard, Lige, Willis, Sosoo, & Neblett, 2017). The present study addresses this gap by offering an intentionally intersectional study that deepens the knowledge of how impostor beliefs manifest for Black women college students. Results of the study also provide recommendations for interventions to address the distinct gendered racial experiences of the impostor phenomenon which allows for nuanced and tailored outcomes to support this understudied group.

The Impostor Phenomenon

The impostor phenomenon (IP) refers to individuals who believe themselves to be incompetent or unintelligent despite objective evidence to the contrary. Individuals endorsing IP tend to discount their achievements, attribute their successes to strokes of luck, and/or harbor fears of being exposed as a fraud primarily to superiors, such as instructors, colleagues, or
supervisors (Clance & Imes, 1978). Scholarship exploring the relationship between impostorism and other psychological constructs establishes correlations between the impostor phenomenon and mental health outcomes (Peteet, Brown, Lige, & Lanaway, 2014), perceived racial discrimination (Bernard et al., 2017; Bernard, Hoggard, & Neblett, 2017; Cokley et al., 2017), self-monitoring (McElwee & Yurak, 2007), self-efficacy (Blondeau, 2014), and survivor’s guilt (Austin, Clark, Ross, & Taylor, 2009).

**Gender and the Impostor Phenomenon**

Due to their clinical experiences with several high-achieving women who demonstrated difficulty internalizing their achievements, researchers and clinicians Clance and Imes (1978) initially believed women were uniquely susceptible to the impostor phenomenon. The researchers hypothesized that women, when compared to men, are more likely to attribute their achievements to external factors, such as luck or temporary internal factors such as effort (Clance & Imes, 1978) due to gender socialization. While these unstable causal attributions are likely to lead to repeated successes for those endorsing impostor beliefs, they are unlikely to change internal impostor beliefs, leading to the preservation of IP (Russell, 1982).

Though Clance and Imes (1978) heavily considered how implicit and explicit messages about gender shape the process of internalizing achievements, their sample for their hypothesis consisted of majority White middle to upper-class women between the ages of 20 and 45 years old. This lack of diversity threatens the validity of the potential underlying causes of impostor beliefs for women of color. Specifically, it fails to consider how the compounded effects of gender and other sociocultural factors such as race potentially influence impostor beliefs for women. Recent studies inquiring about potential gender differences in the endorsement of impostor beliefs find no significant score differences between women and men in mixed race and
Despite these findings, socialization messages and sociocultural context may still largely explain variations regarding the underlying rationale and triggers for the endorsement of impostorism across different groups.

**Black Women College Students and the Impostor Phenomenon**

Positing that Black college students are likely vulnerable to impostor beliefs in educational settings due to negative racial stereotypes regarding intelligence, impostorism literature in recent years has shifted towards the potentially racialized outcomes of IP on this student population. Findings indicate that IP moderates the relationship between perceived racial discrimination and mental health outcomes for Black students indicating that IP is particularly harmful for these students’ mental health (Cokley et al., 2017). Other findings indicate that IP in conjunction with minority status stress is psychologically burdensome for Black college students leading to negative mental health outcomes (McClain et al., 2015). Evidence also notes that experiences of racial discrimination and stage of racial identity influence IP (Bernard, Hoggard, & Neblett, 2017).

Regarding Black college students, IP studies tend to produce mixed results about the additional influence of gender on the relationship between IP and mental health outcomes. Some studies indicate no significant effect for gender (Cokley et al., 2013; McClain et al., 2015), whereas other literature finds that high levels of IP for Black women college students in conjunction with minimally distressing racial discrimination promotes a vulnerability to negative mental health outcomes (Bernard et al., 2017). These studies all, however, tend to approach explorations of race and gender as two distinct and separate identity markers, measuring their
influence on constructs as additive or multiplicative while failing to consider that race and gender are inherently and inextricably linked (Lewis & Neville, 2015).

Intersectionality, a term coined by critical race theorist Kimberlé Crenshaw (1989), speaks to the inability to tease race apart from gender. The framework posits that Black women, specifically, have a unique compounded identity where their sexism is racialized and their racism is gendered. Consequently, the experiences of Black women are largely ignored or all together erased in society and traditional research methodologies. To better explore the experiences of this population, intersectional scholars recommend both quantitative and qualitative approaches that seek to view identity for Black women as interlocked (Else-Quest & Hyde, 2016).

**Stereotypes and Impostor Phenomenon**

Living at the intersection of both gender and racial minority status in predominantly White spaces, might leave Black women college students highly susceptible to impostor beliefs. It is feasible that many Black women college students are at least acutely aware of negative gendered racial stereotypes that out-group members may potentially endorse about their group, particularly in mixed-race settings. Stereotype threat, defined as the situational threat of confirming a negative stereotype about one’s group in evaluative tasks, when stimulated, often results in a decrease in task performance due to the depletion of psychological resources (Steele & Aronson, 1995). Research noted that even the awareness of group stereotypes for Black women, also known as metastereotype awareness, in specific domains can activate symptoms of anxiety. In a recent study, researchers found that metastereotype awareness predicted negative mental health outcomes for Black women providing evidence for the hypothesis that both the external awareness and internal endorsement of negative group stereotypes are negatively impactful for this population (Jerald, Cole, Ward, & Avery, 2017).
Scholars noted that IP and stereotype threat differ in several key ways. Firstly, IP refers to the internalization of incompetence that often results in high-achievement, whereas stereotype threat often leads to diminished achievement. Second, stereotype threat is an external awareness of negative stereotypes that are not necessarily consciously internalized. Individuals endorsing IP, however, do internalize a sense of fraudulence. Lastly, stereotype threat is context-dependent and triggered by the fear of self-fulfilling stereotypes. IP, conversely, is often conceptualized as stable and can be consistent across several domains and contexts (McClain et al., 2016).

Though IP and stereotype threat are not the same construct, stereotype threat may potentially precede impostor beliefs for Black women college students. Black women college students who view themselves as intellectual frauds despite external evidence are at risk of internalizing negative gendered racial stereotypes regarding their race and gender’s intellectual capabilities. Consequently, future studies should seek to better understand the antecedents for impostor beliefs across this group.

**The Proposed Study**

Using an intersectional approach is paramount towards better understanding the underlying impetus for the endorsement of impostor beliefs amongst the understudied and often overlooked demographic of Black women. This study expands on impostor phenomenon (IP) literature by investigating how IP mediates the relationship between group stereotype susceptibility and mental health outcomes. It also examines the frequency and intensity of impostor beliefs for Black women college students by incorporating the use of a daily dairy, which qualitatively assesses the context, content, and the emotional outcomes of impostor belief endorsement. The results of this project highlight the underlying rationale and triggers for IP amongst this population which will better inform clinical interventions.
This project utilized two studies to answer the following research questions amongst a sample of Black women college students:

1) Do global impostor feelings mediate the relationship between the endorsement of group stereotypical beliefs and mental health outcomes?

2) Utilizing a diary study methodology, does situational context (race, gender, status, and number of people) influence event-contingent endorsement of impostor beliefs?

_Hypothesis 1._ It was expected that impostor beliefs would mediate the relationship between group stereotype endorsement and mental health outcomes. In other words, group stereotype endorsement was expected to have an indirect effect on mental health outcomes through impostor beliefs.

_Hypothesis 2._ It was hypothesized that aspects of situational context such as the race, gender, status, and number of people involved in the triggering event would relate to increased frequency of impostor beliefs. Specifically, participants were expected to report more frequent impostor belief incidents in situations involving a higher proportion of persons of dominant racial and/or gender backgrounds, amongst persons of greater status or significance, and amongst different sized groups.

The researcher proposed that support of these hypotheses would significantly impact clinical practice and training, policy and prevention, and future research endeavors aimed at better targeted interventions for Black women college students attending PWIs who may be vulnerable to impostor beliefs.
CHAPTER TWO
REVIEW OF LITERATURE

The following chapter outlines a comprehensive description of relevant literature connected to the impostor phenomenon, intersectionality, stereotype threat, and their influence on mental health for Black women. This chapter further provides a detailed analysis of theoretical perspectives and empirical studies investigating the associations between the previously mentioned constructs while providing a rationale for studying their effects on Black women undergraduate college students.

The Impostor Phenomenon

The Initial Study

Reflecting on their own internal experiences as graduate students and their interactions with other high-achieving women, clinicians and researchers Pauline Rose Clance and Suzanne Imes noticed a peculiar trend: demonstrably competent women showing difficulty internalizing their accomplishments despite external and objective markers of success. The clinicians and researchers labeled this presentation “the impostor phenomenon” (IP) which they eventually categorized as the tendency for highly successful people to discount their successes, attribute them to luck, and/or present with fear about being revealed as a fraud to others. In their initial study of 277 educated and successful women, the researchers further defined and clarified the construct, hypothesized its origins, and posited its maintenance behaviors (Clance & Imes, 1978).
Regarding IP’s development, the researchers proposed that family and childhood dynamics largely shape vulnerability. For some IP sufferers, the researchers suggested that family messaging that disregards the role of intellectual competence in securing achievements and instead promotes external factors such as social skills may trigger feelings of impostorism. In efforts to disprove family beliefs about external causes being the key to their success, these individuals will seek to accumulate more and more intellectual achievements. Despite their accomplishments, however, they may begin to question whether the family messages they received were correct and may come to believe that their successes were achieved for reasons outside of their actual intellectual abilities (Clance & Imes, 1978).

Clance and Imes (1978) further posited that other family dynamics that may appear more encouraging can also increase an individual’s vulnerability for IP. As an example, the authors suggested that family dynamics in which the family repeatedly and indiscriminately tells the child that they are intellectually superior despite the accomplishment’s objective difficulty could cause the child to later question their own abilities when they do inevitably struggle with completing certain tasks. In this quest to consistently meet their family’s expectations and narrow definition of intellect, the individual begins to doubt their true abilities and begins to view themself as an impostor (Clance & Imes, 1978).

Aside from family dynamics, Clance and Imes (1978) also suggested that environmental factors contribute to the development of IP. The authors hypothesized that sex-role socialization and gendered stereotypes reinforced IP due to women seeing themselves through society’s lens of believing women to be incompetent. As a result, women are more likely when compared to men to internalize their failures whereas men are more likely to internalize their achievements (Clance & Imes, 1978).
Building on these findings and support for developmental considerations, the researchers additionally highlighted four specific behaviors they believe maintain IP. The first behavior addresses the concept of hard work. If an individual is afraid of being revealed as a fraud, they will work more diligently to disguise their incompetence. Consequently, their diligence will be rewarded in achievements and validation from those in positions of authority. Instead of internalizing a sense of competence from said achievements, the individual believes that they must continue the cycle of work to hide their internal failings. Another maintenance behavior comes through intellectual flattery meaning the penchant to hide one’s own beliefs and opinions to instead deliver what they think the other wants to hear. Doing so protects the individual from sharing their views, which, they believe, would ultimately reveal their incompetence and allows them to avoid learning how their views would actually be received (Clance & Imes, 1978).

The third maintenance behavior involves using charm and social sensitivity to win approval. Individuals engaging in this behavior may internalize feelings of low competence but may also harbor a wish to be seen as special and intelligent by a respected other. When this individual does receive approval and praise for their abilities by this respected other, however, the individual will likely discount their accolades and attribute them solely to their own charm and perceptiveness. They will also discount their mentor as an unreliable judge of their abilities and will likely seek out another mentor to begin the cycle again. The fourth and final maintenance behavior proposed by the researchers involves addressing social implications of gender and success. Clance and Imes (1978) noted that many women may encounter negative social implications should they outwardly display self-confidence. As such, viewing oneself as an impostor may allow a woman to continue pursuing achievements while reducing her fears about societal rejection.
In the years since Clance and Imes initial study (1978), knowledge and scholarship about IP has grown and assumptions from the initial study have been expanded on and, for some assumptions, disproved altogether. For instance, despite Clance and Imes insistence that women are uniquely vulnerable to IP (1978), researchers have found that men can also experience impostor beliefs and that they tend to report similar levels of IP when compared to women (Beard, 1990; Cokley et al., 2013; Cokley et al., 2015; Kumar & Jagacinski, 2006; McClain et al., 2016; McGregor, Gee, & Posey, 2008). However, in accordance with the original study’s hypotheses, there is new evidence that societal and environmental factors such as discrimination and socialization play an underlying role in the endorsement of IP (Bernard & Neblett, 2018; Bernard, Hoggard, & Neblett, 2017; Cokley et al., 2017). Contemporary scholarship has explored this concept by investigating how identity factors and psychological constructs related to culture and oppression provide context for how IP presents and is maintained for different groups navigating the achievement-oriented arena of higher education.

**The Impostor Phenomenon and Black Students**

Until recently, most studies on IP incorporated majority White college student samples and ignored aspects of oppression as potential mediating and/or moderating variables for the impostor phenomenon and subsequent mental health outcomes. To offer a more comprehensive and culturally-informed understanding of IP, researchers in recent years have sought to investigate how the impact of sociocultural factors such as race, ethnicity, and racialized discrimination impact the prevalence and intensity of impostor beliefs and how that relates to mental health (Bernard et al., 2017; Bernard & Neblett, 2018; Cokley et al., 2013; Cokley et al., 2017; McClain et al., 2016; Peteet et al., 2015).
Mental health. Citing the substantial scholarship establishing evidence for the psychologically deleterious impact of racial discrimination and stereotypes on Black students in predominantly White educational environments, several studies posit a racialized component of impostorism. For instance, Cokley et al. (2013) posits that minority status stress (defined as enduring the stress of stereotypes, discrimination and cultural differences) and impostor beliefs are significantly related to psychological distress for Black college students. Results from McClain et al.’s study (2016) corroborates these findings and also suggests that minority status stress in conjunction with IP exacerbates negative mental health outcomes for Black students attending PWIs.

Providing even more evidence of negative mental health outcomes, Peteet et al. (2015) identified that greater endorsement of IP predicted higher reports of psychological distress and lower self-esteem for a sample of Black college students. Austin et al. (2009) offers evidence that IP mediates the relationship between survivors guilt and depressive symptoms amongst Black college students. Considering the impact of racial discrimination on reported IP levels, Bernard et al. (2017), in a longitudinal study following Black college students, found that racial discrimination predicted changes in IP over time. Findings also suggest that racial discrimination serves as a moderator for the association between IP and mental health outcomes. Additionally, Cokley et al. (2017) provided verification that IP was a stronger predictor of anxiety when compared to perceived discrimination for Black college students.

Racial and ethnic identity. With a clearly established connection between IP and negative psychological and mental health implications for Black college students, some researchers sought to examine potential protective and risk factors by testing the relationship between racial and ethnic identity on IP. While often conflated, racial identity and ethnic identity
are distinct constructs. According to Sellers and colleagues, racial identity refers to the level of significance an individual ascribes to their racial background and the degree that they identify themselves as a member of their racial group (Sellers, Rowley, Chavous, Shelton, & Smith, 1997). Ethnic identity, though, signifies an individual’s exploration and commitment to their ethnic identification through the endorsement of attitudes and feelings about others who share their ancestry and experiences (Phinney, 1996).

While both racial identity and ethnic identity can serve as buffers for Black students and tend to bolster self-concept and well-being, racial identity is known for facilitating both resiliency and vulnerability. Specifically, racial identity has been found to mitigate the effects of racial discrimination on psychological distress, while other studies note that Black students high in racial centrality (the extent of how one views their race as a core aspect of their self-concept) tend to report higher psychological distress in response to discrimination and have been found to perceive discrimination in ambiguous situations (Lee & Ahn, 2013; Sellers & Shelton, 2003). Ethnic identity, however, is associated with higher academic outcomes and positive mental health outcomes for students of color (Bonilla, 2017; Smith et al., 2009; Smith & Sylvia, 2011). Consequently, researchers have shown interest in determining how racial and ethnic identity impact IP.

Regarding racial identity and IP, Lige, Peteet, and Brown’s study (2017) found evidence that self-esteem mediates the relationship between the two constructs. Specifically, participants endorsing positive attitudes towards Black people and their group membership were also likely to report higher levels of self-esteem and lower levels of IP. Bernard and colleagues (2017) support these findings by noting that racial identity attitudes centered on the importance and meaning of race correlated with reports of IP for Black students. However, these results contrast
with earlier findings from Ewing et al.’s 1996 study that found that academic self-concept had stronger predictive qualities for IP levels above the predictive qualities of racial identity and Afrocentric worldviews signifying mixed findings of the role of racial identity on IP scores.

Considering the role of ethnic identity on IP, McClain et al.’s findings (2016) indicate that ethnic identity is a stronger predictor, above and beyond IP and minority status stress, on mental health outcomes. Ethnic identity, primarily high affirmation and belonging, also predicted IP scores amongst a sample of Black and Hispanic identified students attending a PWI (Peteet, Montgomery, & Weekes, 2015). Findings clarifying the impact of racial identity and ethnic identity further support the notion that level of group identification is significant to understanding how IP impacts Black college students.

Though IP literature has improved to include how identity, cultural, and oppressive forces impact its presentation and influence on mental health outcomes for Black students and other ethnic minority groups, more research is needed to test its applicability to Black women specifically. With evidence proposing that racial identity and racial discrimination can explain or change the impact of IP on Black students, further research needs to investigate how gendered racial identity and gendered racism factor into IP for Black women.

The Impostor Phenomenon and Black Women College Students

Scholarship examining the relationship between gender and IP produces mixed findings and conclusions. A study utilizing a mixed race college student sample suggests that gender stigma consciousness defined as the degree of awareness an individual has of their gender stigmatized status predicts IP (Cokley et al., 2011). Another mixed-gender and predominantly White sample of graduate students reported that women endorsed higher levels of academic
stress and IP when compared to men, though gender did not moderate the relationship between perfectionism and IP (Cowie, Nealis, Sherry, Hewitt, & Flett, 2018).

However, most IP studies accounting for gender tend to use ill-advised statistical strategies that do not utilize an intersectional methodology (Else-Quest & Hyde, 2016). Further, they do not account for the potential underlying rationale for impostor endorsement. Such a perspective denies the impact of social histories and realities offering acontextual conclusions. While Clance and Imes developed a strong case for the potential origins and maintenance of the impostor phenomenon and its potential relationship to women, the participant sample in their initial study has since been criticized for its homogeneity - a sample consisting of educated, majority White, middle to upperclass women (Clance & Imes, 1978). Such a non-diverse sample threatens the generalizability of studies on IP leaving them vulnerable to cultural irrelevancy when applied to other populations.

For Black women, the impact of other forms of oppression aside from sexism such as racism link and intersect to form differential and more compounded forms of oppression offering a more complex and nuanced perspective on the development and maintenance of constructs like IP. With a sample of Black college students, Bernard et al. (2017) found that gender moderated the relationship between IP and mental health using a longitudinal study. They found that Black women who endorsed higher levels of racial discrimination frequency and lower levels of racial discrimination distress were most susceptible to negative mental health implications associated with IP. Results suggest that Black women are more likely to internalize symptoms of discrimination when compared to Black men. That being so, more research is needed to explore the relationship between race, gender, and IP.
Gendered Racism and Intersectionality

The term "gendered racism" introduced by Philomena Essed (1991) voices the complexities of navigating gendered and classed forms of racism due to stereotypes about Black womanhood (as cited in Lewis & Neville, 2015). For decades, psychologists have struggled to fully comprehend the impact of sexism and racism in Black women's lives, offering various strategies towards conceptualizing the phenomenon and primarily viewing racism and sexism as additive, multiplicative, or interlocked experiences (Cole, 2009).

The double jeopardy approach to gendered racism suggests that the experiences of racism and sexism have additive effects on Black women (Beal, 1970). This lens proposes that Black women experience psychological distress due to racism and additional psychological distress attributed to sexism. This approach tends to view racism and sexism as separate independent variables while comparing and contrasting the distress of each one. Labeling the psychological distress stemming from both racism and sexism as a form of "double jeopardy," has since been criticized due to its presumption that racist and sexist oppression are equal and that they do not interact to form a unique form of oppression for Black women (Cole, 2009; Lewis & Neville, 2015).

Later scholarship attempted to expand on the double jeopardy approach by suggesting that Black women encounter a form of "multiple jeopardy." This framework proposes that the sexism and racism Black women face interacts to intensify their experiences of either concept. "Multiple jeopardy" surmises that sexism moderates racism and that racism moderates sexism. While this perspective is more complex than the double jeopardy approach, it continues to limit how sexism and racism combine to form a compounded form of oppression for Black women (King, 2016).
Further investigating the interaction between racism and sexism for Black women, Moradi and Subich (2003) found evidence for additive and interactional effects to gendered racism. The researchers found that when examining racist and sexist events separately, an increase in frequency of racist and sexist events correlated with increased psychological distress. They also found that when racist and sexist events were examined together, sexist events became a unique predictor of distress and that there was not a significant interaction effect. The researchers posited from their results that racist and sexist oppression intersect to create a unique experience of oppression for Black women.

Attempting to expand on additive, multiplicative, and interactional approaches towards conceptualizing the oppression Black women experience, critical race theorist Kimberlé Crenshaw proposed a lens coined “intersectionality” in 1989. Pulling from many Black feminists and scholar-activists of days prior, Crenshaw utilized the term to refer to the consequences of multiple categories of social group membership and addressed the limitations of single-axis frameworks for understanding discrimination and oppression (Cole, 2009; Crenshaw, 1989, 1991). Regarding Black women, specifically, Crenshaw (1989) notes that:

Black women's experiences are much broader than the general categories that discrimination discourse provides. Yet, the continued insistence that Black women's demands and needs be filtered through categorical analyses that completely obscure their experiences guarantees that their needs will seldom be addressed (p. 149-150).

Consequently, oppression unique to Black women goes largely ignored as witnessed countless times in many psychological studies including the original impostor phenomenon study where the researchers perpetuated a familiar dynamic of conflating White women’s experience with “women’s experiences.” Thus, removing women of color and especially Black women’s unique narratives from scientific inquiry (Collins, 2000).
To counter research approaches that ignore or misrepresent intersectionality, Cole (2009) proposes three questions for addressing intersectional inquiries in psychological research: 1) who is included within the category, 2) what role does inequality play, and 3) where are there similarities? The first question addresses the role of diversity within social categories. For instance, studies exploring the experiences of women have historically prioritized the experiences of middle class White women rather than other classes and racial/ethnic groups of women. Cole suggests that by considering inclusion within categories, researchers can achieve greater representation that goes beyond a single-axis framework while repairing misconceptions about marginalized subgroups. This question can allow researchers to explore how multiple identities and social categories interact with one another to influence how individuals make meaning.

The second question regarding the role of inequality facilitates the consideration of race and gender in terms of "structural categories and social processes" instead of mere individual characteristics. This question considers historical and social context associated with social group membership and addresses how associated structural inequality impacts group membership. Cole (2009) proposes that femininity, in turn, is experienced differently for Black women and White women due to historical considerations and racial stereotypes. This question promotes an interdisciplinary perspective to research questions that values history and other social science disciplines.

The third and final question speaks to finding commonalities across various social group categories. By addressing similarities, researchers can reach across boundaries to better advocate for more individuals. Cole (2009) offers an example from Fine and Weis (1998) noting that an
issue like violence impacts individuals within different social categories differently and uniquely due to their social categories. For instance, White women and women of color may center domestic violence, whereas Black women and men of color may be more concerned with state violence such as police brutality. Cole (2009) suggests that a more "nuanced understanding" of commonalities and differences regarding issues would better inform community and political interventions around them.

**Gendered Racism, Intersectionality, and Mental Health Implications**

Psychological scholarship has long established that aspects of racial discrimination impact Black individuals’ mental well-being and health outcomes (Clark et al., 1999; Pieterse et al., 2012). However, intersectional research takes these findings further and provides evidence that gendered racism negatively affects Black women, in particular, and their mental health. For example, Thomas, Witherspoon, and Speight’s study (2008) offers an intersectional perspective towards investigating the relationship between gendered racism, psychological distress, and coping styles. Findings from the study note that participants primarily identified gendered racism through interpersonal settings and relationships, and researchers noted a positive correlation between gendered racism and associated psychological distress. Additionally, researchers found evidence that the avoidant coping style of cognitive-emotional debriefing (the tendency to externalize, deny, and/or minimize the issue) mediates the relationship between gendered racism and psychological distress.

Supporting results from Thomas et al. (2008), Szymanski and Lewis (2016) found evidence that the relationship between gendered racism and psychological distress for Black women college students was mediated by two types of disengagement coping styles: detachment and internalization. Specifically, participants experiencing higher levels of gendered racism also
experienced greater levels of detachment (withdrawing from others and the discriminatory situation) and internalization (blaming themselves), which led to higher reports of psychological distress. And a 2017 study on intersectionality, Black women, and health outcomes further corroborates these findings by noting that increases in gendered racial microaggressions (covert forms of gendered racism) were associated with negative mental health outcomes and that avoidant coping strategies mediated the relationship between gendered racism and psychological distress (Lewis, Williams, Peppers, & Gadson, 2017). Consequently, the unique experience of gendered racism is psychologically harmful for Black women.

**Stereotypes and Black Women**

Like many psychological constructs previously mentioned, research on women’s stereotypes are overly represented by studies with majority White women participants with results rarely applicable for Black women whose stereotypes are rooted in a specific type of historical reality of gendered racial oppression (Donovan, 2011). Expounding on this concept, Collins (2000) refers to Black women stereotypes using the sociological term “controlling images” which she describes as images “designed to make racism, sexism, poverty, and other forms of social injustice appear to be natural, normal, and inevitable parts of everyday life” (p. 69). Collins (2000) suggests that for Black women, in particular, the perpetuation of these controlling images maintain intersecting oppressions by ensuring Black women’s subordination. Collins (2000) and other researchers postulate that modern Black women stereotypes originated during slavery when enslaved Black women were perceived as strong and subservient to their White oppressors (White, 1985). The primary controlling images that emerged from this time period center on the mammy, matriarch, welfare mother, and the Jezebel.
Collins (2000) defines the mammy as the loyal and idealized domestic, nurturing and caring for White children before her own. Contrasting with the mammy, the matriarch stereotype, also referred to as the Sapphire (West, 2008), criticized the independent Black mother who works to provide for her family. This controlling image was viewed as undesirable and painted Black women as aggressive, unfeminine, and responsible for dismantling the Black family. Similarly, the Welfare mother refers to a stereotype associated with working class Black women labeling them as overly fertile breeders leaching off of social welfare policies. Lastly, the Jezebel stereotype refers both to attempts at controlling Black women’s sexuality and viewing Black women as hyper-sexual.

Scholars have explored the various health outcomes for Black women who internalize negative stereotypes finding that Black women who endorse them are vulnerable to risky sexual behaviors (Townsend, Thomas, Neilands, & Jackson, 2010), substance use (Jerald, Cole, Ward, & Avery, 2017), anger suppression (Ashley, 2014; Walley-Jean, 2009), diminished self-care (Jerald, Cole, Ward, & Avery, 2017), increased stress (Woods-Giscombe, 2010), and depressive and anxiety symptoms (Watson & Hunter, 2015). Noting that some stereotypes can also be seen as aspirational and positive, researchers have investigated the mental health implications of even the seemingly affirming stereotypes such as the Strong Black Woman, which depicts Black women as selfless, resilient, and emotionally strong despite obstacles (Watson & Hunter, 2015). Nevertheless, endorsement of the Strong Black Woman role has also been found to be associated with negative mental and physical health (Watson & Hunter, 2015; Woods-Giscombe, 2010). Researchers note that even the awareness of negative stereotypes on Black women corresponds with negative health outcomes. For instance, a study from Jerald, Cole, and Ward, (2017) found that metastereotype awareness, being aware that others hold negative stereotypes about Black
women, predicted depression, anxiety, and hostility amongst a sample of Black undergraduate and graduate students. Accordingly, both the knowledge and endorsement of stereotypes can be psychologically damaging for Black women.

**Stereotype Threat**

Steele and Aronson (1995) sought to clarify the psychological explanations for the racial achievement gap or inequitable education outcomes between Black and White students by developing a series of studies to test a concept referred to as “stereotype threat.” Stereotype threat describes the situational threat of being judged negatively on a task and thus confirming a stereotype about one’s group. The researchers found that when Black students were primed with information related to Black stereotypes regarding their intellectual capacity, their performance suffered when compared to White students. The fear of confirming negative stereotypes about their group’s intellectual abilities further depleted psychological resources, activated self-doubt in their thinking, and caused them to attempt to distance themselves from the Black stereotypes. These findings indicated that Black students’ mere awareness of negative stereotypes about their intellectual abilities and the possibility of being negatively evaluated, irrespective of stereotype internalization, are anxiety-provoking and harmful.

**Mechanisms of Stereotype Threat**

Considering the multitude of internal and external factors potentially accounting for stereotype threat’s influence on performance, multiple studies have tested a myriad of mediating and moderating variables. A working memory interference approach posits that stereotype threat leads to reduced performance due to the depletion of cognitive resources typically allocated towards task performance now being allocated towards processing the activation of the stereotype (Schmader & Johns, 2003; Stone & McWhinnie, 2008). A mere effort approach
suggests that the process of disconfirming and avoiding the confirmation of stereotypes produces added pressures on targeted groups compared to non-stereotyped groups (Jamieson & Harkins, 2007). Individuals who identify strongly with the targeted identity are more motivated to disconfirm the negative stereotype (Forbes, Schmader, & Allen, 2007; Jamieson & Harkins, 2007). The mere effort account notes that stereotype threat does not hinder performance on all stereotype-relevant tasks, but only on more challenging tasks. Conversely, targeted groups have improved performance on tasks that fall within the range of their abilities due to their motivation for disconfirming the negative stereotype (Ben-Zeev, Fein, & Inzlicht, 2005; O’Brien & Crandall, 2003). Hence, targeted groups tend to fare better on easier tasks rather than difficult tasks due to these effects. Additionally, a phenomenon known as the latent ability effect suggests that once stereotype threat is reduced, targeted group members tend to perform better than members of non-stereotyped groups (Walton & Spencer, 2009). Indicating that affirming spaces should lead to increased performance for students vulnerable to such threats.

Other researchers posit that decreased performance following stereotype threat is a response to threats to self-worth. Self-attribution theory supports this notion by stating that the self is driven to protect and project self-integrity (moral and self-integrity) and that when this image of integrity is threatened, individuals respond in a manner that helps them restore their sense of self-worth (Steele, 1988; Sherman & Cohen, 2006). In an attempt to maintain a positive self-concept, targeted groups may self-handicap by not practicing (e.g. exhibiting low effort) (Pyszczynski & Greenberg, 1983; Rhodewalt, Saltzman, & Wittmer, 1984; Stone, 2002; Tice, 1991; Tice & Baumeister, 1990), and by blaming external factors for underperformance (Keller, 2002; Steele & Aronson, 1995). Doing so allows individuals to de-identify with their underperformance while maintaining an intact positive self-concept.
Differential Risk

Supplementing scholarship on how stereotype threat psychologically functions, many researchers are devoting studies towards better understanding differential risk – primarily, how and when stereotype threat presents for different targeted identities. For individuals holding a negatively stereotyped identity and a positively stereotyped identity, research posits that priming them with the positive stereotyped identity corresponds with greater performance. For instance, a study found that Asian women students improved their performance on math tasks when they were primed with their Asian racial identity – often associated with stereotypes about superior math abilities - rather than their gender identity – often associated with stereotypes about inferior math abilities (Shih, Pittinsky, & Ambady, 1999). A similar study found that when women students were primed to consider their identity as students at a selective college rather than their identity as women, they performed better on a task than women students who were primed to think of their gender identity. In the same study, men who were primed using gender identity, reported higher scores than men who were not (McGlone & Aronson, 2006).

Noting that group social histories, group identification, and the degree to which an individual believes their identity is changeable would likely impact the eliciting factors of stereotype threats, Shapiro (2011) developed a multi-threat framework to expand on the construct. Shapiro distinguished six types of eliciting factors emerging from two different dimensions: group-as-target or the fear that performing poorly on a stereotype-relevant task will reflect poorly on one’s group, and self-as-target indicating concern that poor performance on a stereotype-relevant task will reflect poorly on the individual’s own abilities in their mind. Shapiro (2011) concluded that individuals belonging to stigmatizable groups that tend to elicit high levels of group identification (race/ethnicity and religion) are more susceptible to group-as-
source threats. Individuals with stigmatized racial/ethnic and religious identities were far less likely to endorse the actual stereotype ascribed to their group. Conversely, individuals belonging to stigmatizable groups eliciting low levels of group identification (overweight and mental illness) were more susceptible to self-as-source threats and stereotype endorsement. These findings illustrate variability across stereotyped groups and address the role of group identification in stereotype threat susceptibility. The findings further caution researchers from generalizing eliciting factors for stereotype threat.

Later scholarship builds on this multi-threat framework noting that different negatively stereotyped groups, specifically Black students and women students, require different interventions depending on whether the threat corresponds to group-as-target or self-as-target. For instance, when Black students were primed with stereotype threats manipulated to activate stereotypes about their racial group, only a same gender and race role model intervention buffered the effects of stereotype threat. Conversely, when they were primed with threats that their personal performance could confirm negative stereotypes to be true in their own minds, only self-affirmation interventions buffered the impact of stereotype threat. These findings offer greater rationale for a more nuanced application of stereotype threat for different populations (Shapiro, 2011).

Other studies have investigated how identity salience relates to stereotype threat vulnerability. Evidence proposes that individuals with little or no connection to the targeted identity are less likely to experience negative implications when in situations typically prompting stereotype threat (Shapiro & Neuberg, 2007; Shapiro, 2011). Further, the type of targeted identity corresponds to the level of susceptibility to stereotype endorsement (Shapiro, 2011).
Individuals with high stigma consciousness are vulnerable to stereotype threat and women who identify strongly with their gender tend to perform lower than men on math tasks (Brown & Pinel, 2003; Schmader, 2002).

Considering differential risk for stereotype threat adds needed complexity to the understanding of the construct, but fails to clarify how stereotype threat functions for individuals who hold two or more highly interconnected stigmatizable identities. Such a viewpoint limits how stereotype threats function in real world contexts. In reality, students are not able to neatly tease apart their race from gender and some stereotypes relevant to academic and achievement-oriented environments elicit unique gendered racial stereotypes for Black women.

**The Impostor Phenomenon and Stereotype Threat**

Black college students are vulnerable to both the impostor phenomenon and stereotype threat with the former affecting mental health and the latter resulting in impaired academic performance (Cokley et al., 2013; Cokley et al., 2017; McClain et al, 2016; Steele & Aronson, 1995). Despite their shared prevalence in academic environments and their racialized contributing factors, the impostor phenomenon and stereotype threat are considered distinct for a few key reasons. Firstly, the constructs differ on achievement outcomes. The impostor phenomenon solely impacts high-achieving individuals whereas stereotype threat, when activated, tends to reduce performance in stereotype-relevant domains likely diminishing academic achievement. Secondly, the impostor phenomenon is considered constant remaining throughout various situational contexts whereas stereotype threat is cued only in stereotype-relevant situations. Thirdly, the impostor phenomenon is conceptualized as an internalized belief meaning that the endorser has to truly believe that they are incompetent or undeserving of
success. Stereotype threat, conversely, can be activated regardless of whether or not an individual truly endorses a negative stereotype as true.

Scholarship already posits that racialized contributing and contextual factors influence the endorsement of impostor beliefs, yet the impostor phenomenon is still conceptualized as an internal process akin to a cognitive distortion. The current description of the impostor phenomenon is limiting and removes contextual analysis about how impostor beliefs might be situationally activated for oppressed groups when in oppressive environments. Mainly, classifying the impostor phenomenon as an internal belief that follows an individual across situations fails to account for social histories and environmental factors that influence a minoritized individual’s assessment of their abilities moment-by-moment. Measuring the construct globally, similarly disallows for the exploration of situations most likely to prompt impostor beliefs for Black women students, which threatens the generalizability of interventions.

Recent efforts to expand on stereotype threat research stress its complexities noting that different interventions should be utilized depending on the target of the stereotype and their group identification (Shapiro, 2011). Likewise, it follows that the impostor phenomenon would have comparative complexities considering the individual’s group membership. One complexity proposed in this study is that for Black women college students attending predominantly White institutions, environments founded on exclusionary practices, the impostor phenomenon may be activated by stereotype threat susceptibility. Meaning Black women students might be more likely to report impostor beliefs in contexts that either implicitly or explicitly communicate to them that they are impostors – primarily, within predominantly White educational spaces.

Within an academic context, literature clarifies that White college students view Black and White women students differently based on gendered racial stereotypes. Donovan (2011)
found that White students were more likely to perceive Black women students as loud, tough, less sensitive, and less educated in comparison to their White women counterparts highlighting key aspects of the Matriarch/Sapphire stereotype. Testing the hypothesis of whether stereotype threat susceptibility and context trigger feelings of impostorism would clarify the characteristics of situations that tend to activate or intensify impostor beliefs. Results would further elucidate better-suited interventions for sufferers and would atone for a history of culturally-misinformed impostor phenomenon research that viewed White women as the foundation for the construct.

**Summary and Critique**

This chapter offers a detailed review of relevant literature pertaining to the impostor phenomenon, its origins, key empirical studies, and its impact on psychological research. With an increased interest in intersectionality within psychology and an influx of research related to IP and its impact on students carrying non-dominant identities, it follows that research on IP could benefit from an intersectional approach. For this reason, the author proposed a study that investigated how stereotype threat and environmental context interact with IP to impact the mental health of a historically underrepresented group in psychology, Black women college students. Previous research has already established that environmental stressors such as perceived racism and viewing oneself and identity as a target for stereotypes has a connection to poor mental health outcomes for Black students. However, more research is needed to consider how these environmental stressors influence the impostor phenomenon for Black women.

To address this research gap, this study posed the following research questions amongst a sample of Black women college students:

1) Do global impostor feelings mediate the relationship between the endorsement of group stereotypical beliefs and mental health outcomes?
2) Utilizing a diary study methodology, does situational context (race, gender, and status of those involved, and number of people) influence event-contingent endorsement of impostor beliefs?

*Hypothesis 1.* It was expected that impostor beliefs would mediate the relationship between group stereotype endorsement and mental health outcomes. In other words, group stereotype endorsement was expected to have an indirect effect on mental health outcomes through impostor beliefs.

*Hypothesis 2.* It was hypothesized that aspects of situational context such as the race, gender, status, and number of people involved in the triggering event would relate to increased frequency of impostor beliefs. Specifically, participants were expected to report more intense impostor belief incidents in situations involving persons of dominant racial and/or gender backgrounds, amongst persons of greater status or significance, and amongst different sized groups. Figure 1 depicts the hypothesized mediation analysis.

![Diagram](image)

*Figure 1. Hypothesized Mediation Analysis*
CHAPTER THREE

METHODS

This chapter includes the following information for each of the two studies: description of sample, data collection procedure, psychometric characteristics of included instruments, and the data analytic strategy.

Study One

Participants

An a priori power analysis utilizing G*Power (Erdfelder, Faul, & Buchner, 1996) indicated that approximately 200 participants were needed in order to have 80% power to detect a small to medium effect size at a statistical significance level of .05. This study included a total of 414 participants who self-identified as Black women currently enrolled in 4-year predominantly White universities. Participant ages ranged from 18 years to 36 years of age with a mean of 20.30 (SD = 0.096). A large majority of participants (95.4%) identified as cisgender, 0.5% identified as gender nonconforming, and 4.2% of participants identified their gender as other. Considering socioeconomic status, 47.8% of participants reported being middle class, 32% identified as working class, 13.1% reported being upper middle class, 6.6% identified as poor, and 0.5% of participants reported being wealthy. Participants included first-year students at 15.2%, sophomore students representing 23%, juniors with 29.3%, and seniors representing 32.5% of the sample. See Table 1 for demographic information including frequencies and percentages.
Table 1. Study One Demographic Information

<table>
<thead>
<tr>
<th>Gender Identity</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisgender</td>
<td>390</td>
<td>95.4</td>
</tr>
<tr>
<td>Gender Nonconforming</td>
<td>2</td>
<td>0.5</td>
</tr>
<tr>
<td>Transgender</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Other Gender</td>
<td>17</td>
<td>4.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Socioeconomic Status</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>27</td>
<td>6.6</td>
</tr>
<tr>
<td>Working Class</td>
<td>132</td>
<td>32.0</td>
</tr>
<tr>
<td>Middle Class</td>
<td>197</td>
<td>47.8</td>
</tr>
<tr>
<td>Upper-Middle Class</td>
<td>54</td>
<td>13.1</td>
</tr>
<tr>
<td>Wealthy</td>
<td>2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year in School</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-year</td>
<td>62</td>
<td>0.24</td>
</tr>
<tr>
<td>Sophomore</td>
<td>94</td>
<td>0.29</td>
</tr>
<tr>
<td>Junior</td>
<td>120</td>
<td>0.08</td>
</tr>
<tr>
<td>Senior</td>
<td>133</td>
<td>0.38</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>20.30</td>
</tr>
<tr>
<td>GPA</td>
<td>3.25</td>
</tr>
</tbody>
</table>

Measures

Demographic Questionnaire

Participants completed a brief demographic questionnaire assessing for age, gender, socioeconomic status, undergraduate year (first-year, sophomore, junior, or senior), and, if applicable, undergraduate major/minor.

Predictor: Susceptibility to Group Stereotype Endorsement

Susceptibility to group stereotype endorsement. Participants’ susceptibility to the endorsement of group stereotypes regarding Black women was measured by Shapiro’s multi-threat framework for susceptibility to stereotype threat scale (2011). Shapiro’s scale was employed for the present study given its subscales that measure different types of stereotype threat. The scale was initially developed to differentiate four distinct types of stereotype threat.
(self-concept, group-concept, own-reputation, and group reputation threats) and classify them into two larger dimensions, the target of the stereotype threat and the source of the stereotype threat. Each of the four subscales contains three different items.

The first two types of stereotype threats, self-concept and group-concept, align with the self-as-source dimension. Self-concept threat refers to the self as both the source and the target of stereotype threat. Shapiro (2011) notes that activation for this form of stereotype threat occurs through stereotype endorsement and the fear of proving a negative stereotype to be true in one’s own mind. Similarly, group-concept threat is considered as the self-as-source and the group-as-target for stereotype threat. Individuals susceptible to this form of stereotype threat must identify with the threatened group and endorse the stereotype.

The other two stereotype threats, own-reputation and group-reputation, refer to the others-as-source dimension. Own-reputation threat describes the fear of being viewed stereotypically by outgroup members. To be susceptible to this form of stereotype threat, individuals must believe that outgroup members endorse negative stereotypes about their group and that the outgroup members associate them (the target) with the stereotyped group. Relatedly, group-reputation threat views others-as-source and group-as-target for stereotype threat. Individuals vulnerable to group-reputation threat fear that their actions will reinforce negative stereotypes that outgroup members hold about their group. Again, for group-reputation threat to hold, individuals must believe that outgroup members endorse negative stereotypes about their groups, and individuals must identify with the targeted group.

Participants completed a modified version of Shapiro’s multi-threat scale (2011) which prompted respondents to specifically consider predominantly White academic or professional settings and their identity as Black women. Participants responded to items such as the following
statement modified from the self-concept subscale: “Please think about your actions in an academic or professional setting with predominantly non-Black women. When you are in these types of situations, to what extent are you concerned that your actions will confirm, in your own mind, that the negative stereotypes are true about people who are Black women?” For each statement, respondents rated how true the statement is for them on a scale from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicate higher levels of susceptibility to stereotype threat.

Due to the researcher’s interest in measuring scores of susceptibility to group stereotype endorsement, the researcher conducted an exploratory factor analysis (detailed at length in Chapter Four) to determine which items from the self-concept and group-concept threat subscales would be retained and utilized for the present study. The present study yielded a $\alpha$ of .88 for the four retained items.

**Mediator: Impostor Beliefs**

**Impostor phenomenon.** Each participant responded to the Clance Impostor Phenomenon Scale (CIPS; Clance, 1985), a 20-item scale used to determine participants’ self-reported levels of IP. The CIPS is the most commonly employed measure for the impostor phenomenon in psychological studies. The CIPS is comprised of three factors: Fake which assesses self-doubt, Discount referring to an inability to acknowledge achievements, and Luck assessing beliefs that accomplishments are attributed to chance or error and not ability. Sample items include “I’m afraid people important to me may find out that I am not as capable as they think I am” and “I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.” Participants respond on a 5-point Likert-type scale with options ranging from 1 (strongly disagree) to 5 (strongly agree).
Scores from the CIPS are reported from the 20-item total score and are not differentiated according to its three factors or subscales. Higher scores on the CIPS indicate higher levels of IP. Evidence for discriminate validity has been demonstrated with self-esteem, social anxiety, and depression (Chrisman, Pieper, Clance, Holland, & Glickauf-Hughes, 1995). Internal consistency reliability estimates are strong ranging from .90 to .96 (Chrisman et al., 1995; French, Ullrich-French, & Follman, 2008; Want & Kleitman, 2006). McClain et al.’s sample of all Black college students reported α of .91 (2016). The internal consistency reliability estimate for the present study is α of .93.

**Outcome: Mental Health**

*Mental health.* To measure mental health, respondents completed the anxiety and depression subscales of the Mental Health Inventory-18 (MHI-18; Veit & Ware, 1983; Weinstein, Berwick, Goldman, Murphy, & Barsky, 1989). Previous IP studies on college populations utilized the MHI-18 to assess for participants’ mental health levels. The MHI-18 is an 18-item measure with four subscales under two indices. The three subscales Anxiety, Depression, and Loss of Behavioral Control correspond with the psychological distress index, whereas the fourth subscale, Positive Affect, corresponds with the psychological well-being index. Participants respond to the 18-item scale utilizing a 6-point Likert-like scale ranging from 1 (all of the time) to 6 (none of the time). Higher scores indicated better mental well-being. Respondent are asked to report on the duration of a specific emotion “during the past month.” Sample items include “Have you been a nervous person?” and “Did you feel depressed?” Higher scores in the Anxiety and Depression subscales indicate higher levels of psychological distress. Evidence of construct validity for the MHI-18 is provided through correlations with race-related
stress and perceived stress (Pieterse & Carter, 2007). McClain et al.’s sample of Black college students reported $\alpha$ of .91 (2016). Cokley et al.’s sample of racial/ethnic minority college students reported $\alpha$ of .79 and .86 for the anxiety and depression subscales, respectively (2017). Internal consistency reliability estimates for depression and anxiety within the present study are $\alpha$ of .86 and .84, respectively.

**Procedure**

Following Loyola University Chicago Institutional Review Board approval, participants completed the survey online via Opinio Survey Software, an online tool to create, disperse, and manage research surveys. Participants were recruited through publicly accessible emails sent to individuals involved in community and campus organizations targeting Black women, flyers placed around college campuses and community organizations such as TRiO programs, offices of multicultural student affairs, and in online group forums such as Facebook, Twitter, Instagram, and online LISTSERVs. The recruitment links included web-based links to the online survey. The survey package included informed consent, a demographic questionnaire, the Shapiro multi-threat measure of stereotype threat susceptibility, the Clance Impostor Phenomenon Scale [CIPS], and the anxiety and depression sub-scales of the Mental Health Inventory-18 [MHI-18]. While the researcher did not ask respondents to provide the name of their current institution in the survey, the researcher created a recruitment contact list of approximately 1,500 contacts targeting a wide net of PWIs and Black women student organizations across the United States.

Participants were asked to read the informed consent once they reached the online survey and were informed that their participation was voluntary and that they could withdraw at any point. Data was kept anonymous and safe in a secure location. To encourage participation and
express appreciation, participants also had the option to be directed to a separate webpage at the end of the survey where they supplied their email address to enter a raffle to win one of four $25 online gift cards. After the researcher received an increase in funding for the present project to further encourage participation, later participants had the option of supplying their email addresses to receive a $15 online gift card for participation and the option to enter a raffle to receive a $25 online gift card. Participants were notified that should they choose to enter the raffle or supply their email for any reason, their survey responses would not be matched with their identifying information.

Data Analysis

Preliminary Analysis

Data was exported into SPSS following data completion. Missing values were analyzed in SPSS using Multiple Imputation. Each scale and subscale was assessed for normality, homescedasticity, and linearity. The bivariate correlations between the variables were reported in a table using the associated Pearson r values. Mean, Standard deviation, skewness, and kurtosis were reported for each scale.

Main Analysis

For the main analysis of study one, the researcher conducted two mediated regression analyses in SPSS software (one for anxiety and the other for depression) to assess whether impostor beliefs mediate the relationship between group stereotype endorsement and mental health outcomes (anxiety and depression) amongst the sample of Black women college students. The analyses was completed in four steps by testing four pathways (a, b, c, and c’) via three regression analyses (Baron & Kenny, 1986; Frazier, Tix, & Barron, 2004). In step 1 (testing Path c), the relationship between the predictor variable (susceptibility to group stereotype
endorsement) and the outcome variable (mental health) must be significant. In step 2 (testing Path a), the predictor variable (susceptibility to group stereotype endorsement) and the mediator (impostor beliefs) must be significantly related. During step 3 (testing Paths b and c’), the mediator (impostor beliefs) should significantly predict the outcome variable (mental health). If the relationship between the predictor and the outcome is zero when controlling for the mediator variable (Path c’), then the data supports full mediation. If the relationship between the predictor and the outcome significantly decreases, but is greater than zero once the mediator (impostor beliefs) is included (Path c’), then partial mediation is supported.

To test the significance of the mediated effect (the change from c to c’), Kenny, Kashy, and Bolger (1998) recommend testing the significance of the products of Paths a and b by dividing the product of Paths a and b by a standard error term. The mediated effect divided by its standard error produces a z score of the mediated effect. Kenny et al. (1998) states that if the z score is greater than 1.96, the effect is significant at .05.

**Study Two**

**Participants**

A total of 32 self-identified Black women enrolled as undergraduate students in 4-year predominantly White universities in a large Midwestern metropolitan area participated in study two. The mean age of participants was 20.38 years with a range from 18 to 31 years of age and a standard deviation of 2.709. Regarding socioeconomic status, the majority of participants (37%; n=12) identified as working class 28.1% of participants reported themselves as first-year students, another 28.1% identified as sophomore students, 31.3% identified as juniors, and 12.5% of participants identified as seniors. Participants endorsed a wide variety of majors with the majority of participants (50%; n=16) majoring in a social science discipline. The average
grade point average (GPA) of the 31 reported was 3.31 with a standard deviation of 0.335 and a range of 2.700 to 3.925. Between the 32 participants, there were a total of 71 incidents fitting the description of the impostor phenomenon. The mean number of incidents per participant was 2.29 for the study with a range from 0 to 7 per participant. The mean response rate was 86%. For a full description of each participant’s demographic information including participant number, view Table 2.

Participants were compensated for their participation; receiving half of their payment at the end of the first week and the other half at the end of the following week. Eight participants received a total of $20 for completing the study and the remaining participants received a total of $30 for participation with the increase in compensation attributed to monies awarded via the Fahs-Beck dissertation grant.

Measures

Daily Diary

Daily diary of impostor beliefs. Rather than relying on retrospective data related to global impostor belief reports, this study utilized event sampling methodology (ESM) to better understand the content, context, and nature of impostor beliefs on day-to-day basis. ESM offers several benefits to traditional methodologies in that it allows for participants to report more ambiguous incidents of impostor beliefs. It also provides an opportunity to study the preceding events triggering impostor beliefs, which will allow for better-tailored interventions to combat these cognitive distortions.

Participants completed a daily diary to record any daily instances, an interval-contingent recording of ESM, of impostor beliefs. The daily diaries asked respondents if they endorsed a significant lack of confidence when completing a task and/or felt that they had to fake
competence. Rather than utilize the term “impostor,” the researcher intended to use a more widely used and less pathologizing phrases to encourage participants to report instances that they feel are more ambiguous. If a participant endorsed any incidents of a significant lack of confidence and/or faking competence, they were prompted to briefly describe, in no more than four sentences, the event and context such as preceding events or triggers. Participants were asked to identify an emotion corresponding with their lack of confidence and/or faked competence. Participants also rated the level of intensity for the emotion on a 5-point Likert-type scale ranging from 1 (not at all intense) to 5 (the most intense I’ve ever felt). Next, participants were asked to identify the gender and racial makeup of those involved, an estimated number of people involved, and the status of those involved (classmates, instructor, employer etc.), if applicable.

Specifically, the survey consisted of the following questions: 1) At any time today did you experience a significant lack of confidence when completing a task and/or did you feel that you had to fake competence? 2) If you answered ‘yes’ to question 1, please briefly describe the incident and/or accompanying thoughts in no more than four sentences. 3a) Please identify an emotional response to the incident and/or thought described in question 2. 3b) Please rate how much you felt the emotion identified in 3a: 1 (not at all intense) to 5 (the most intense I’ve ever felt). 4) Please characterize the incident according to the following four domains: gender of those involved, race of those involved, estimated number of those involved, and status of those involved.
Table 2. Demographics of Study Two Participants

<table>
<thead>
<tr>
<th>ID #</th>
<th>Age</th>
<th>Gender Identity (self-reported)</th>
<th>SES</th>
<th>Year in School</th>
<th>Major/Minor</th>
<th>GPA</th>
<th>Incidents Reported</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>19</td>
<td>Cisgender</td>
<td>Upper Middle Class</td>
<td>Sophomore</td>
<td>Health Systems Management</td>
<td>3.3</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
<td>F</td>
<td>Working Class</td>
<td>Senior</td>
<td>Psychology/Pre-Pharmacy</td>
<td>3.42</td>
<td>1</td>
<td>93%</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>Female</td>
<td>Upper Middle Class</td>
<td>First-year</td>
<td>Biology</td>
<td>3</td>
<td>7</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
<td>Female</td>
<td>Middle Class</td>
<td>Sophomore</td>
<td>Health Sciences/Spanish</td>
<td>3.67</td>
<td>2</td>
<td>93%</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>F</td>
<td>Middle Class</td>
<td>First-year</td>
<td>Psychology/Spanish</td>
<td>3.2</td>
<td>3</td>
<td>86%</td>
</tr>
<tr>
<td>6</td>
<td>18</td>
<td>Female</td>
<td>Poor</td>
<td>First-year</td>
<td>Undeclared</td>
<td>2.7</td>
<td>4</td>
<td>86%</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>Female</td>
<td>Upper Middle Class</td>
<td>Junior</td>
<td>Health Systems Management</td>
<td>3.35</td>
<td>3</td>
<td>79%</td>
</tr>
<tr>
<td>8</td>
<td>18</td>
<td>Female</td>
<td>Middle Class</td>
<td>First-year</td>
<td>Psychology</td>
<td>3.3</td>
<td>4</td>
<td>93%</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>Female</td>
<td>Middle Class</td>
<td>Sophomore</td>
<td>Criminal Justice and Criminology/Psychology and Sociology</td>
<td>3.5</td>
<td>0</td>
<td>86%</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>F</td>
<td>Upper Middle Class</td>
<td>Senior</td>
<td>Psychology</td>
<td>3</td>
<td>0</td>
<td>93%</td>
</tr>
<tr>
<td>11</td>
<td>18</td>
<td>Female</td>
<td>Middle Class</td>
<td>First-year</td>
<td>Global International Studies/Health Systems Management</td>
<td>3.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>20</td>
<td>Female</td>
<td>Working Class</td>
<td>Junior</td>
<td>Social Work</td>
<td>3.1</td>
<td>3</td>
<td>86%</td>
</tr>
<tr>
<td>13</td>
<td>22</td>
<td>Female</td>
<td>Working Class</td>
<td>Senior</td>
<td>Exercise Science</td>
<td>3.13</td>
<td>4</td>
<td>93%</td>
</tr>
<tr>
<td>14</td>
<td>21</td>
<td>Female</td>
<td>Upper Middle Class</td>
<td>Junior</td>
<td>Marketing and Information Systems</td>
<td>3.2</td>
<td>2</td>
<td>93%</td>
</tr>
<tr>
<td>15</td>
<td>22</td>
<td>Woman</td>
<td>Middle Class</td>
<td>Junior</td>
<td>Psychology</td>
<td>3.1</td>
<td>1</td>
<td>57%</td>
</tr>
<tr>
<td>16</td>
<td>21</td>
<td>Female</td>
<td>Middle Class</td>
<td>Junior</td>
<td>Business Management</td>
<td>3.6</td>
<td>1</td>
<td>79%</td>
</tr>
<tr>
<td>17</td>
<td>22</td>
<td>Woman</td>
<td>Working Class</td>
<td>Senior</td>
<td>Sociology</td>
<td>2.7</td>
<td>4</td>
<td>100%</td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>Female</td>
<td>Working Class</td>
<td>First-year</td>
<td>Marketing Major/Psychology</td>
<td>2</td>
<td></td>
<td>100%</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>Female</td>
<td>Working Class</td>
<td>Junior</td>
<td>Psychology/Film Studies</td>
<td>3.85</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>20</td>
<td>19</td>
<td>Female</td>
<td>Working Class</td>
<td>Sophomore</td>
<td>Psychology/Writing</td>
<td>3.46</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>21</td>
<td>31</td>
<td>Female</td>
<td>Working Class/Middle Class</td>
<td>Junior</td>
<td>English and Biology/Chemistry</td>
<td>3.6</td>
<td>1</td>
<td>71%</td>
</tr>
<tr>
<td>22</td>
<td>21</td>
<td>Female</td>
<td>Working Class</td>
<td>Sophomore</td>
<td>Music Education</td>
<td>3.67</td>
<td>0</td>
<td>57%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>-----------------------------------------------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>20</td>
<td>Woman</td>
<td>Working Class</td>
<td>Junior</td>
<td>Neuroscience/Global Health</td>
<td>2.96</td>
<td>4</td>
<td>93%</td>
</tr>
<tr>
<td>24</td>
<td>21</td>
<td>Female</td>
<td>Upper Middle Class</td>
<td>Junior</td>
<td>Psychology/Pre-Dentistry</td>
<td>3.1</td>
<td>1</td>
<td>93%</td>
</tr>
<tr>
<td>25</td>
<td>19</td>
<td>Female</td>
<td>Working Class</td>
<td>First-year</td>
<td>Human Development and Psychological Services</td>
<td>3.1</td>
<td>1</td>
<td>86%</td>
</tr>
<tr>
<td>26</td>
<td>19</td>
<td>Woman</td>
<td>Working Class</td>
<td>First-year</td>
<td>Psychology</td>
<td>3.74</td>
<td>4</td>
<td>64%</td>
</tr>
<tr>
<td>27</td>
<td>19</td>
<td>F</td>
<td>Poor</td>
<td>Sophomore</td>
<td>Political Science</td>
<td>3.48</td>
<td>2</td>
<td>100%</td>
</tr>
<tr>
<td>28</td>
<td>20</td>
<td>Woman</td>
<td>Working Class/Middle Class</td>
<td>Sophomore</td>
<td>English lit</td>
<td>3.1</td>
<td>3</td>
<td>79%</td>
</tr>
<tr>
<td>29</td>
<td>18</td>
<td>Woman</td>
<td>Middle Class</td>
<td>First-year</td>
<td>Communication Studies/Spanish</td>
<td>3.925</td>
<td>1</td>
<td>71%</td>
</tr>
<tr>
<td>30</td>
<td>20</td>
<td>Woman</td>
<td>Working Class</td>
<td>Sophomore</td>
<td>Journalism</td>
<td>3.5</td>
<td>4</td>
<td>79%</td>
</tr>
<tr>
<td>31</td>
<td>28</td>
<td>Female</td>
<td>Wealthy</td>
<td>Sophomore</td>
<td>Business</td>
<td>3.9</td>
<td>0</td>
<td>79%</td>
</tr>
<tr>
<td>32</td>
<td>19</td>
<td>Female</td>
<td>Upper Middle Class</td>
<td>Junior</td>
<td>Human Development and Psychological Services</td>
<td>2.8</td>
<td>3</td>
<td>79%</td>
</tr>
</tbody>
</table>
Procedure

Before beginning the daily diary aspect of the study, participants attended a 30 minute training session with the researcher where they completed informed consent forms, provided demographic information proving them eligible for participation, received instructions on completing diary entries on an interval-contingent basis, and had the opportunity to ask any lingering questions about their involvement in the study.

Participants received instructions on how to complete the study through an ESM cell phone application (PIEL Survey App). If participants did not have a smart phone, they would receive daily notifications via email to complete the survey through online software. However, this accommodation was not needed for this group of participants. Participants were instructed to report any daily instances of low confidence or faked competence. If these incidents were not applicable, participants had the option to deny any related incidents in their daily entry.

Following their training session, participants were instructed to record and submit their responses over a trial period of three days. If there were no issues or concerns following the trial period, participants then proceeded with the remaining days of the daily diary recording. Participants received daily notifications through the app at 8:00pm each day prompting them to complete their diary entry before 11:59pm. Lastly, participants also attended an in-person debriefing meeting with the research where they were encouraged to discuss their experience completing the study, provide feedback about the experience, and ask any additional questions.

Data Analysis

Qualitative data analysis. For the purpose of this study, when coding the data, the researcher determined if the open-ended qualitative responses aligned with impostor beliefs or not and only included corresponding entries in the final data set. The researcher analyzed the
open-responses of the diary recordings utilizing grounded theory qualitative analysis. Grounded theory offers a systematic and flexible mean for collecting and analyzing qualitative data simultaneously. Grounded theory’s defining components are its: constructivistic approach towards analyzing codes and categorizing data and avoids relying on a priori hypotheses; involving a comparative method throughout each stage of data analysis; incorporating memo-writing to further investigate, specify, elaborate, and define relationships between categories of data; and providing a detailed literature review after independent analysis (Charmaz, 2006).

In grounded theory, coding serves as a primary and crucial means to “make analytical sense” of participant data (Charmaz, 2006). Coding initially occurs line-by-line, allowing the researcher to have a close understanding of the data. Focused coding, then follows, which permits the researcher to separate and integrate larger amounts of data. Next, the researcher engages with memo-writing or more extensive note taking on codes which facilitate the researcher’s ideas about the information and sparks further investigation. After memo-writing, researchers engage in theoretical sampling which refers to selecting more data to complete and expand on important categories. Finally, grounded theorists use their analyses to report their theoretical findings.

Because psychological research has failed to properly investigate the experiences of Black women, grounded theory is an ideal approach for analyzing data with an intersectional population due to is constructivistic approach. This analytic style allows data to stand by itself without researchers inadvertently minimizing or disregarding details that do not align with preconceived theories; issues that have occurred many times in quantitative analyses of Black women (Else-Quest & Hyde, 2016).
Quantitative Data Analysis

The researcher opted to analyze quantitative data along with qualitative data for study two to further investigate the context and nature of impostor belief activating situations for Black women college students. Of the 32 participants involved in study two, a total of 26 participants endorsed experiencing at least one triggering event for impostor beliefs. Hence, the regression analyses only included data for these 26 participants. Given the small sample size, the researcher opted for a series of simple regression analyses rather than multiple regression analyses. The researcher collected data on the number of incidents reported per participant included in study two and information about characteristics for each impostor belief activating incident. The researcher ran simple linear regression analyses with characteristics of the impostor event (gender of those involved, race of those involved, number of those involved, status of those involved) as the independent variables and each participant’s total number of triggering events (frequency) as the outcome variable. The researcher also conducted a linear regression to explore the predictive relationship between frequency of impostor belief triggering incidents and proportion of overall emotional intensity. The researcher further calculated proportions for the various levels of each characteristic and ran separate regressions for each proportion (detailed much more extensively in Chapter Four).
CHAPTER FOUR

RESULTS

This chapter includes: 1) preliminary analyses of the data for study one including strategies for handling missing values, tests of normality, and correlations between key variables, 2) main analyses of the mediation analyses for study one, 3) an analysis of qualitative themes from study two utilizing a grounded theory framework, and 4) a summary of the main results for both studies.

Study One

Preliminary Analyses

Missing Values

Data was first cleaned and evaluated for missing values and outliers. Best practice recommendations for handling missing values suggest that researchers determine both the amount of missing data (often attributed to item nonresponse or attrition) and pattern of missing data (completely random, ignorable, or nonignorable) (Schlomer, Bauman, & Card, 2010). To document the amount of missing data, researchers recommend reporting the percentage of missing responses for each item for each measure assessed, if feasible, and not just the percentage missing at the variable-level. At the item level, the present study indicates that 93.34% of values are complete and that 6.664% of the study’s values are missing. At the case level, there are 75.6% complete cases and 24.4% of cases that have incomplete data. Further, 90.16% of all items have at least some incomplete data meaning that 90.16% of items have at
least one missing value. As of now, there is no agreed upon consensus for when missing data becomes problematic with some researchers suggesting a cutoff at 5% missing and others recommending a cutoff as high as 20% (Schlomer, Bauman, & Card, 2010). See Figure 2 for a summary of missing values.

Regarding patterns, missing data are categorized as MCAR (missing completely at random, MAR (missing at random or ignorable), or MNAR (missing not at random or nonignorable). MCAR data suggests that there are no patterns to the missing data and that missing data is unrelated to any other variables in the study. Data that is predictable from other variables in the data set are categorized as MAR. Meaning data, under MAR, are related to another variable in the analysis but not the missing data itself. MNAR data, conversely, is more difficult to define. MNAR data indicates that “the likelihood of missingness is related to the score on that same variable had the participant responded” (Schlomer, Bauman, & Card, 2010, p. 3).

Little’s MCAR test, an omnibus statistical test, determines whether the pattern of data fits the MCAR classification. Insignificant results indicate that missing values are MCAR, and a p
value of less than 0.05, however, is usually interpreted as missing data being MAR or MNAR (Schlomer, Bauman, & Card, 2010). The Little’s MCAR test for the present study provided a chi-square value of 1910.513 and a p value of 1.00 indicating that data is likely MCAR.

Another common strategy to differentiate MAR from MCAR involves creating a dummy variable to divide cases into those with missing values and those with nonmissing values and then running a t-test to determine if there is a difference in mean values across the two groups on a variable of interest. If missingness is not associated with other variables, the pattern is MCAR. However, if the dummy variable is associated with other variables, the data is considered MAR (Schlomer, Bauman, & Card, 2010).

For the present study, the researcher ran an independent samples t-test comparing participants with missing values and those without missing values on socioeconomic status, year in school, and gender identity to examine whether missingness was due to aspects of participant characteristics on any of these three categories. The Levene’s test indicated significant variance across socioeconomic status between participants with missing variables and those without missing values. However, the researcher employed a Welch’s test which is often utilized in lieu of a t-test when variances are statistically significant and when there are unequal sample sizes across the two comparison groups (Delacre, Lakens, & Leys, 2017). Results from the Welch’s test found that socioeconomic status, year in school, and gender identity were insignificant suggesting that there is no statistical difference between participants with missing data and those without missing data.

Lastly, in conjunction with the Little’s MCAR test and the Welch’s test, the researcher utilized another method to examine the pattern of missingness. The researcher analyzed the
missing values pattern in SPSS via Missing Values Analysis. Given that the missing variables are spread out versus clustered in pattern, the researcher concluded that the data is likely MCAR.

To estimate missing values, the researcher chose to use multiple imputation which is currently regarded as the best method for handling missing data. Multiple imputation creates a series of imputed data sets, typically between three and five, and the final standard errors of the parameter estimates are created by both the standard errors of analysis for each data set and the distribution of parameter estimates across the data sets, according to Schlomer, Bauman, and Card (2010). The researcher employed multiple imputation to create and analyze five multiply imputed datasets. Incomplete data was imputed using the default settings of the SPSS Statistical Software.

**Exploratory Factor Analysis**

Given that few studies have utilized Shapiro’s multi-threat framework for susceptibility to stereotype threat scale, the researcher conducted a factor analysis to determine the latent factor structure. The Bartlett’s test of sphericity (p = .000) and the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO = .891) were used to determine the factorability of the correlation matrix. The tests indicated that the measure was appropriate for factor analysis, and the kurtosis and skewness met the assumptions of normality. Considering that the items are correlated with one another, principal axis factor analysis with direct oblimin rotation was used for factor extraction.

Several criteria were employed to determine the number of factors to retain. After examining the percentage of variance associated with each factor, the scree plot, and the eigenvalues, the results indicated strong evidence for a three-factor solution: Factor 1 (eigenvalue = 6.150; 51.249% of variance), Factor 2 (eigenvalue = 1.559; 12.996% of variance),
and Factor 3 (eigenvalue = 1.062; 8.849% of variance). See Table 3 for the pattern matrix of the original 12 items.

Utilizing the following criteria recommended by Worthington and Whittaker (2006), items were deleted if: 1) the factor loading fell below .40, 2) the difference between cross-loaded items had less than a .15 difference, and 3) communalities fell below .40. Considering these criteria, the two following items from the self-concept threat domain were deleted: 1) to what extent are you concerned that your actions will lead you to see yourself as actually possessing the negative stereotypes that others have about Black women? and 2) to what extent are you concerned that your actions could imply negative things about your abilities in your own mind?

Ten items were retained and divided into three factors. An EFA on the remaining items was conducted to ensure that the factor structure remained consistent following item deletion. With the remaining ten items, the three-factor solution stayed consistent with Factor 1 (eigenvalue = 5.387; 53.870% of variance), Factor 2 (eigenvalue = 1.551; 15.507% of variance), and Factor 3 (eigenvalue = 1.051; 10.506% of variance). Considering that the researcher was interested in participants’ self and group concept, the researcher utilized only the first factor/scale for the remaining analyses. Since Factor 1 includes one item from the initial Self-Concept Threat scale and three items from the Group-Concept Threat scale, the researcher named the four remaining items the Self and Group Concept Threat scale. The researcher also opted to keep the initial names for the two other factors/scales, Own-Reputation Threat and Group-Reputation Threat respectively, considering that the items loaded accordingly. See Table 4 for the pattern matrix of the 10 retained items.
Table 3. Pattern Matrix for Original 12 Items

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCT_2</td>
<td>0.922</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GCT_1</td>
<td>0.889</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GCT_3</td>
<td>0.875</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCT_3</td>
<td>0.746</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCT_1</td>
<td>0.445</td>
<td>0.346</td>
<td></td>
</tr>
<tr>
<td>SCT_2</td>
<td>0.359</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORT_2</td>
<td>0.903</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORT_1</td>
<td>0.855</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORT_3</td>
<td>0.849</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRT_2</td>
<td>-0.972</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRT_3</td>
<td>-0.913</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRT_1</td>
<td>-0.664</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. Pattern Matrix for 10 Retained Items

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCT_2: to what extent are you concerned that your actions will prove to yourself that the stereotypes are true about Black women?</td>
<td>0.930</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GCT_3: to what extent are you concerned that your actions will lead you to believe that the stereotypes about Black women are true?</td>
<td>0.884</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GCT_1: to what extent are you concerned that your actions will confirm, in your own mind, that the negative stereotypes are true about Black women?</td>
<td>0.883</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCT_3: to what extent are you concerned that your actions could confirm, in your own mind, that the negative stereotypes others have about Black women are true of you?</td>
<td>0.712</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORT_2: to what extent are you concerned that your actions could lead you to be judged negatively by others because you are a Black woman?</td>
<td>0.910</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORT_1: to what extent are you concerned that because you are a Black woman, your actions could influence the way other people interact with you?</td>
<td>0.864</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ORT_3: to what extent are you concerned that your actions could lead others to judge you based on the stereotypes about Black women?  

GRT_2: to what extent are you concerned that your actions might poorly represent Black women?  

GRT_3: to what extent are you concerned that your actions might confirm the negative stereotypes in the minds of others about Black women?  

GRT_1: to what extent are you concerned that your actions will reinforce the negative stereotypes, to others, about Black women?  

Extraction Method: Principal Component Analysis.  
Rotation Method: Oblimin with Kaiser Normalization.a  
a. Rotation converged in 5 iterations.

Correlations

Table 5 provides the correlations, mean, standard deviations, skewness, and kurtosis for all major study variables for study one. All variables met the normality assumption and offered satisfactory skewness and kurtosis (skew <2, kurtosis <7). Consequently, all study variables were included in the analyses. All variables were significantly correlated at p <.01.

Table 5. Correlation Matrix, Means, Standard Deviations, Skewness and Kurtosis

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIPS</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTF - Self/Group Concept</td>
<td>.350**</td>
<td>1.00</td>
<td>-.204**</td>
<td>-.111**</td>
</tr>
<tr>
<td>MHI - Depression</td>
<td>-.540**</td>
<td>-.204**</td>
<td>1.00</td>
<td>.692**</td>
</tr>
<tr>
<td>MHI - Anxiety</td>
<td>-.549**</td>
<td>-.111**</td>
<td>.692**</td>
<td>1.00</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIPS</td>
<td>66.54</td>
<td>15.21</td>
<td>-0.194</td>
<td>-0.542</td>
</tr>
<tr>
<td>MTF - Self/Group Concept</td>
<td>9.14</td>
<td>4.269</td>
<td>0.591</td>
<td>-0.596</td>
</tr>
<tr>
<td>MHI - Depression</td>
<td>56.984</td>
<td>21.04583</td>
<td>-0.285</td>
<td>-0.225</td>
</tr>
<tr>
<td>MHI - Anxiety</td>
<td>46.7610</td>
<td>21.86030</td>
<td>0.076</td>
<td>-0.425</td>
</tr>
</tbody>
</table>
Main Analysis

Two mediation analyses were performed to test whether susceptibility to group stereotype threat has an indirect effect on mental health outcomes (depression and anxiety) through the scores on the impostor phenomenon.

1. Mediation analysis: Depression. A mediated regression analysis was used to examine the hypothesis that impostor beliefs mediate the effect of susceptibility to group stereotype threat on depression. Results indicated that susceptibility to group stereotypes was a significant predictor of depression ($\beta = -.204, SE = .098, p < .05$) and impostor beliefs ($\beta = .350, SE = .068, p < .05$). Impostor beliefs were also a significant predictor of depression ($\beta = -.540, SE = .024, p < .05$). After controlling for impostor beliefs, susceptibility to group stereotype threat was no longer a significant predictor of depression ($\beta = -.020, SE = .091, p > .05$) indicating a full mediation ($\beta = -.533, SE = .025, p < .05$). Approximately, 29% of the variance was accounted for by the predictors ($R^2 = .291$). A Sobel test was conducted and found a significant mediation effect ($z= -15.616, p< .001$). These findings indicate that greater susceptibility to group stereotype threat predicts increased depression symptoms and that this relationship is explained by impostor belief endorsement.

2. Mediation analysis: Anxiety. A mediated regression analysis was used to examine the hypothesis that impostor beliefs mediate the effect of susceptibility to group stereotype threat on anxiety. Results indicated that susceptibility to group stereotypes was a significant predictor of anxiety ($\beta = -.111, SE = .103, p < .05$) and impostor beliefs ($\beta = .350, SE = .068, p < .05$). Impostor beliefs were also a significant predictor of anxiety ($\beta = -.549, SE = .024, p < .05$). After controlling for impostor beliefs, susceptibility to group stereotype threat remained a significant predictor of anxiety ($\beta = .092, SE = .093, p < .05$) indicating a partial mediation ($\beta =$
\(-.582, \text{SE} = .026, p < .05\). Approximately, 31\% of the variance was accounted for by the predictors (R2 = .310). A Sobel test was implemented and indicated a significant mediation effect (z = -15.973, p < .001). These findings indicate that greater susceptibility to group stereotype threat predicts increased anxiety symptoms and that this relationship is partially explained by impostor belief endorsement.

**Study Two**

In this section, the researcher offers both the qualitative and quantitative data gathered during the diary study (study two). Of the 32 participants included in study two, a total of 26 participants endorsed experiencing at least one impostor belief triggering event. These 26 participants provided descriptions, in their own words, of the incident(s) that triggered their impostor beliefs and provided data regarding the characteristics of the triggering event(s) related to total number, gender, race, and status of those involved in the incident. The open response descriptions of the triggering incident(s) were then analyzed and divided into 56 initial categories, 13 axial categories, and four selective categories. Table 6 lists the selective, axial, and initial codes illustrating the triggering context for impostor beliefs amongst Black women college students.

Lastly, the researcher conducted a series of linear regression analyses to test the predictive relationships between each participant’s number of reported incidents and the characteristics of each triggering event. Specifically, the following sections provide 1) initial, axial, and selective coding themes, 2) key excerpts best defining each theme, and 3) findings for study two’s quantitative data.
Table 6. Selective, Axial, and Initial Coding

<table>
<thead>
<tr>
<th>Selective</th>
<th>Axial</th>
<th>Initial</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Negative Classroom Experiences</td>
<td>A. Invisibility During Class Group Work</td>
<td>1. Being Discredited By Others</td>
</tr>
<tr>
<td>Definition: Experiences within classroom settings that provoked feelings of incompetence and low self-confidence such as hurtful and challenging interpersonal dynamics, comprehension difficulties, and other classroom-relevant pressures.</td>
<td></td>
<td>2. Classmates stealing or rewording ideas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Classmates excluding or ignoring them during group work</td>
</tr>
<tr>
<td>B. Comprehension Difficulties</td>
<td></td>
<td>5. Class Laughing at Participant</td>
</tr>
<tr>
<td>C. Difficulty Expressing Knowledge in Class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Pressure to Excel Due to Race</td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. Fear of Others Viewing Them as Incompetent</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Concerns About Others’ Perceptions of Their Competence</td>
<td>11. Struggling to explain concept</td>
<td>17. Feel that others view them as incompetent</td>
</tr>
<tr>
<td>Definition: The expressed concern that significant others may view them as incompetent and the</td>
<td>12. Mind Going Blank</td>
<td>18. Another person expressing annoyance at perceived fault</td>
</tr>
<tr>
<td></td>
<td>13. Actively not participating for fear of being wrong</td>
<td>19. Negative verbal cues</td>
</tr>
<tr>
<td></td>
<td>14. Stopping self from asking questions</td>
<td>20. Afraid of being viewed as dumb</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
accompanying maintenance behaviors to avoid being perceived as such.

| 21. Concerned about disappointing authority figure |
| 22. Feel need to redeem self for mistake |
| 23. Feel that authority figures expect more from them |

**F. Pretending, Faking, and Overcompensating**

| 24. Pressure to fake competence |
| 25. Overcompensating |
| 26. Pretending to not need or want help |
| 27. Pressure to appear professional and competent |

**G. Changing or Questioning Appearance to Seem Professional**

| 28. Altering appearance |
| 29. Questioning natural hair style |
| 30. Pressure to change appearance to be viewed professionally |

**H. Navigating Power Dynamics**

| 31. Disrespect by supervisees |
| 32. Asking supervisees for help |
| 33. Managing conflict |
| 34. Unclear of instructions |
| 35. Voicelessness |
| 36. Anxiety in response to work dynamic |

**III. Viewing Self and Abilities Negatively**

**I. Feeling incompetent and insecure**

| 37. Felt lack of confidence |
| 38. Feeling unprepared |
| 39. Questioning self |
| 40. Questioning why others view them as competent |
| 41. Self-consciousness |
| 42. Insecurity |
| 43. Questioning transferrable skills |

**J. Viewing self as failure**

| 44. Felt like giving up |
| 45. Facing rejection |
their fears of how they are perceived externally.

46. Feeling like they don’t have anything to offer

K. Fear of confirming low intelligence or abilities

47. Viewing self as not enough

48. Comparing self to peers

IV. Negative Experiences with Authority

**Definition:** Experiences with authority figures and larger systems that provoked feelings of incompetence and low self-confidence due to participant having less power.

L. Authority figure expressing dissatisfaction

49. Authority figure expressing disapproval of work

50. Authority figure publicly acknowledging fault

M. Authority figure or systems wielding power over participant

51. Authority figure questioning participant’s belonging

52. Authority figure questioning participant’s intelligence

53. Authority figure trying to fire participant

54. Sexist Comments by Authority Figure

55. Blocked from taking additional courses

56. Financial issues

---

Core Elements

Negative Classroom Experiences

The classroom setting provided several interpersonal and intrapsychic struggles activating impostor beliefs such as navigating social and cultural dynamics related to group work and stressors related to expected and expressed knowledge. As expected, for these participants, their role as ‘student’ and associated classroom dynamics appeared to make them most vulnerable to impostor beliefs.

**Invisibility During Class Group Work.** The most commonly cited triggering context preceding impostor beliefs was the experience of feeling invisible and ignored during class group
work. These participants discussed hurtful experiences of their work and ideas being discredited, their ideas being stolen or reworded by their peers, being excluded and ignored during group work, being laughed at in class, and having to complete assignments alone. One participant stated,

In Biology, we had a class assignment. I sit next to two people who sit closer to each other, and when we get class assignments I try to engage with them with the questions, but they tend to engage more with each other than with me. I’ll say the answer, and they’ll look for the answers themselves anyways, or ask each other questions instead of me when I tend to always ask them questions. I just completed the assignment on my own and pretended I didn’t need or want help.

Another participant provided an example of a similar occurrence when her input was ignored during a class group assignment. She notes, “There was no one else around to partner up with and I tried to provide input to the questions on the worksheets but they just continued to talk to each other. They say hi and talk to me about other stuff, but not the class assignments.” A different participant described a comparable classroom incident she described as akin to gaslighting. The participant reported, “I felt really gaslit and was questioning myself really hard during a discussion in class today. It was on a topic I know very well, but another girl in the class made it seem like I didn’t know what I was doing.” All excerpts describe participants being actively excluded and discredited in the classroom, despite attempts to provide input.

**Comprehension Difficulties** Participants also described class comprehension issues as another triggering event for impostor beliefs. Participants who endorsed this axial theme described instances of comparing their comprehension level to their peers, having trouble understanding a concept, not doing well in class, and having unpleasant emotional experiences when prepping for exams. As an example, one participant described her tendency to compare her level of comprehension to her perception of her peers’ comprehension levels which resulted in
her feeling like an impostor. She stated, “I felt like I didn’t understand the reading as much as my other peers. They had a lot of intelligent ideas and formed thoughts.”

Other participants clarified that not performing well on exams or struggling with exam material caused them to doubt their abilities and to feel like impostors. “I was taking my Tier Two Lit Exam and there were a few things that I had not studied and had to put ambiguous answers down. I am in between a low B and high C so I am very nervous about my grade,” stated one participant. Another identified a similar sentiment stating, “Studying for my organic chemistry exam has me super stress because its tomorrow and I don't know a section of the material.” Here, participants described how difficulty understanding class material led them towards feeling like impostors.

**Difficulty Expressing Knowledge in Class.** Differing from the Comprehension Difficulties theme, participants endorsing issues with expressing their knowledge in class described the experience of possessing information, but having trouble sharing what they know in the classroom environment. Specifically, participants identified struggling to explain a concept, their mind going blank, choosing not to participate for fear of being wrong, and actively stopping themselves from asking questions in class. One participant stated that, “During my gender studies class, I pretty much sat there and couldn’t get my thoughts out and participate in class. Even when what others said resembles what I was thinking, my fear of speaking up in class and sounding incompetent got the best of me.” As such, many participants endorsing this axial theme face barriers of communicating because they fear the consequences of being publicly wrong.

**Pressure to Excel Due to Race.** For some participants, racial dynamics largely impacted their participation in class. The axial theme of Pressure to Excel Due to Race was endorsed by
participants who noted that their imposter beliefs were triggered by feeling that they had to be better than their non-Black peers and from being the only Black student in their academic setting. One participant noted that being the only Black student in her class made it challenging to ask for help due to fear of how her questions might be perceived by others. Specifically, she notes, “I’m also the only black person in the class, and don’t have anyone else to turn to for help, that even looks like me. I want to ask questions, but I don’t want to be the dumb student in the class that doesn’t get the most basic concepts, to others.” Another participant provided a similar example but noted feeling as though she has to differentiate herself from other students. She stated, “I always feel like I have to be better than my non-black counterparts.”

Participants who endorsed this theme highlight how Black women’s sense of impostorism is a relationship between both their internal worlds and external worlds. These participants illustrate an awareness of how their racialized selves impact their sense of self and their treatment by others and how this dynamic directly influences their experiences as students in the classroom.

**Concerns About Others’ Perceptions of Their Competence**

In contrast to the specific classroom dynamics that participants described as activating their sense of impostorism, participants also provided pointed examples of concerns about others’ perceptions of their competence. Specifically, this core category is defined as the expressed concern that significant others may view the participants as incompetent and the accompanying maintenance behaviors to avoid being perceived as such. While there is significant overlap between this core category and the previous category of negative classroom dynamics considering that some participants identified a classroom setting as the stage for their
concerns about how others view them, participant descriptions under this category describe more
directed and explicit issues about how others perceive their competence.

**Fear of Others Viewing Them as Incompetent.** Participants endorsing this axial theme
described the experiences of feeling that others view them as incompetent, experiences of
another person expressing annoyance at a perceived fault, negative verbal cues from others, fear
of being viewed as dumb, concern about disappointing authority figures, feeling the need to
redeem themselves for a mistake, and feeling as though an authority figure expects more from
them. One participant, though describing a negative classroom experience, clarifies that she has a
fear of being judged negatively by her peers. She stated, “I had to present in a graduate level
class with a group of students who did not affirm my work and were difficult to work with.
Throughout the presentation I felt like I wasn’t going to give the class quality work and they
would see me as a dumb undergrad.” Another student described how implicit interpersonal
messages caused the participant to wonder whether the person posing questions to them viewed
them as competent. She stated, “While taking a test, I was asked questions about the exam.
Though I had studied the night before, the questions being asked made me feel incompetent
because of the tone of voice.” This participant notes that the tone of communication by others
causes her to question her own competence, despite her preparation.

**Pretending, Faking, and Overcompensating.** Participants identifying this theme
describe instances of feeling pressure to fake their competence, overcompensating, pretending to
not need or want help, and pressure to appear professional and competent. One participant
describes an incident at work where she felt pressure to assert her competence among her
younger coworkers and high school aged students. She notes:
I felt that I had to fake my competence for their sake and the other people that I worked with. I felt that I had to act like I knew hand to handle the situation to maintain a front for the students and I also felt that I had to act like I knew what to do because my coworkers are a year younger than I am. I think the anxiety stemmed from feeling incompetent to my coworkers but also feeling like I didn’t belong within the culture of the students to step up.

Another participant clarified that she feels pressure to fake her knowledge due to past negative and insensitive responses from her peers when she posed questions. She states, “When I ask for help from a classmate, she constantly brushes me off by saying things like, ‘literally this is so easy,’ ‘just do this,’ ‘girl, this is so basic.’ So I fake knowing what’s going on in class…”

Another participant provided another similar example of the same concept stating that, “I’m currently bullshitting… a project and I’m convinced my partner is smarter than me so I’m gonna pretend to not be as confused as I am.” These narratives describe how it might be preferable for students to engage in inauthentic facades of competence as a means of avoiding being viewed as inept by others.

**Changing or Questioning Appearance to Seem Professional.** Some participants also conveyed awareness about how their physical appearance may make them more vulnerable to how others categorize their competence. This theme encapsulated several participants’ endorsements of questioning their natural hairstyles and identifying a pressure to change their appearance to be viewed professionally. Most participants endorsing this axial theme highlighted how the perception of their gender and/or racial identity impacted their questioning of professionalism. As an example, one participant provided the following narrative regarding her decision-making process in changing her appearance.

I had worn my Afro out all day and was prepared to [put] out a new pair of pants I had gotten which were half of a larger plaid and half of a smaller plaid on each leg. It’s a little adventurous for a professional setting but they’re technically dress pants. In other settings, I would have definitely work the outfit but between my Afro, funky pants, and
being a black woman I thought I’d be a bit too loud. So I pulled my hair back into a high puff and ended up wearing dark jeans and a blazer. Maybe this is being too deep but when I looked in the mirror and saw my Afro and split color pants, I was reminded of the source of clowns. I’m sure no one would have saw me like that but I just wanted to prevent any possible associations. I felt self conscious and bit sad that I had to police my image to fit in the professional space. Even things like my hair which grow naturally, it’s annoying to have to change that to fit how I think a certain space will be.

This participant felt a need to tone down her style to avoid being perceived negatively given various stereotypes about Black women and a desire to avoid any negative consequences based on her physical appearance.

Another participant also shared a similar pull to change her appearance to fit more Eurocentric features when interviewing such as feeling the need to “straighten [her] hair or wear [her] wig to seem more ‘presentable’.” Both excerpts highlight how metastereotype awareness influences their presentation decisions and how, presenting more naturally or authentically, could lead to professional ramifications.

**Navigating Power Dynamics.** Some participants noted that attempts to navigate various power dynamics caused them to question how their level of competence was perceived by others. These participants identified various experiences of being in positions of power and still having their competence and authority questioned in addition to moments of being in positions with little power and harboring concerns about their competence being potentially questioned.

Specifically, participants endorsing this axial theme provided details of incidents related to being disrespected by supervisees at work, managing conflict, being unclear of supervisors’ instructions, voicelessness, and experiencing anxiety in response to professional dynamics. One participant shared an experience of being disrespected by a supervisee at work. She stated:

I’m a supervisor at my job and had to ask one of my supervisee to help with moving some plywood into the loading dock. It was the last five minutes of the shift … and the supervisee said “my shift ends in 3 minutes I’m not doing that” in a sassy tone. He
apologized for the way he said it but I was still slightly taken aback by the attitude and response.

This excerpt illustrates how participants, despite objective authority, are discredited and disrespected by others resulting in the endorsement of impostor beliefs.

**Viewing Self and Abilities Negatively**

While the previous core category referred to participants who expressed concern about external perceptions of incompetence, this category is defined by participants internally holding negative beliefs about themselves and their capabilities.

**Feeling Incompetent and Insecure.** Participants endorsing this theme discussed feeling a lack of confidence, feeling unprepared, questioning themselves, questioning why others view them as competent, feelings of self-consciousness and insecurity, and questioning their transferrable skills. One participant describes how her own insecurities manifested when given training responsibilities by a work supervisor who believed in her abilities. She shares:

We got a new student assistant at work and I was responsible for training him today for a couple of hours. A white student trained me months earlier and I felt like I wasn’t living up to the standard that I was trained at. I think my boss assumed me to be capable of knowing how to train him, but I didn’t and it was actually an environment I was still getting used to (business professional environment). I thought I should at least be able to do it because the new person was black and the questions and answers would have gone more smoothly, but I couldn’t even do that. I think the new student was also expecting more from me. I just didn’t know how to talk to someone and train them and make them comfortable when I wasn’t even uncomfortable, but I was still expected be.

Participants endorsing this axial theme seemed to struggle with general insecurities and with other people expressing confidence in their capabilities due to their internal self-beliefs.

Consequently, instances related to feelings of incompetence and insecurity triggered impostor beliefs for these participants.
**Viewing Self as a Failure.** Those endorsing the theme of Viewing Self as a Failure described instances of adversity such as wanting to give up, facing rejection, and feeling as if they do not have anything to offer that prompted their impostor beliefs. One participant stated, “I went in for a job interview and I did not get the position. And I don't understand why. This is not the first time I’ve felt like this after an interview. Another described a scenario of not winning an academic competition. She stated, “[I] felt like a failure because I didn't win…” In sum, these moments of rejection and hardship resulted in the participants interrogating their sense of self and prompting feelings of impostorism.

**Fear of Confirming Low Intelligence or Abilities.** Many participants highlighted how their experiences of impostorism were triggered from concerns about confirming their low intelligence and abilities. These participants held internal negative beliefs about their abilities and feared being “outed” as such. This axial theme was comprised of participant narratives that viewed themselves as “not enough” and narratives that described participants feeling like impostors after comparing themselves to their peers. One participant shared how her impostor beliefs were triggered from social media and learning of her friends’ achievements. She stated, “I happened to see a couple post on Instagram highlighting the success of my friends at Loyola. I felt like I was not doing any big accomplishments in my life which made me feel sad and useless.” Another participant shared that she pretends to follow classroom discussions, but internally harbors negative beliefs about her intelligence. She shared, “I fake knowing what’s going on in class, and I’m sure when I get test back after the Break, [the instructor will] confirm just how dumb I am.” As illustrated with the other axial themes, these participants negative internal beliefs about themselves and abilities seemed to underly their impostor beliefs.
Negative Experiences with Authority

The fourth and final category describes participants negative experiences with authority figures and systems that prompted impostor beliefs due to power dynamics. These participants depict incidents of being in disenfranchised positions and how unequal footing with those in authority prompted their endorsement of impostor beliefs.

**Authority Figure Expressing Dissatisfaction.** Participants endorsing this axial theme depicted incidents of authority figures expressing disapproval of work and authority figures publicly acknowledging fault. One participant illustrates how nonverbal cues from her professor caused her confidence to plummet during a class presentation. She noted:

As I was talking my professor began to make sighing noises throughout the entire presentation. So I had to collect myself at the end of the presentation and pretend like I was confident in the work I presented. I think I could have regained my confidence if it weren’t for the verbal cues of distaste from my professor.

A different participant highlighted, again, how her professor’s nonverbal cues impacted their confidence and caused them to regret their participation in class. The participant notes:

My philosophy professor asked for volunteers to explain something in the text. I raised my hand since no one else did and answered to which my professor immediately made a face so I knew it wasn’t the answer they were looking for. Other students turned to look at me, and I wished I hadn’t said anything at all. However, I knew I had to redeem myself by answering something else strongly and be right about it.

This theme highlights how powerful authority figures’ dissatisfaction is for students, members of a lower social and professional rank, and how this power impacts their feelings about themselves and their abilities.

**Authority Figure or Systems Wielding Power Over Participant.** Given their status as students in conjunction with various non-dominant social identities, some participants reported that their impostor beliefs were largely activated from authority figures wielding power over
them or reminding them of the power imbalances between them. Whether these instances were related to work settings, systemic barriers, familial dynamics, or identities, the participants endorsing these themes identified both internal and external consequences for them. One participant stated, “A teacher at my school expressed to my boss and supervisor that she wanted me fired. She disapproved of one of my articles and felt it was in mean spirits. It made me feel very uncomfortable since her students have also been harassing me.” Another participant described an unpleasant experience involving her parents that resulted in her questioning her confidence. She states, “I got into an argument with my parents and they told me I’m not as smart as I think and I was unable to complete my homework due to intense emotion and lack in confidence.”

As another example of how these power differentials occur across different settings and relationships, one participant describes an experience with her competence being challenged by her supervisor in her place of work. The participant reports, “While at work, I was told to do tasks that I have been doing for almost a year now. As I was cleaning my drains, my manager, heckled me, saying things like, ‘Have you ever done this before?’ or ‘I should’ve just had (a male coworker) do this instead.’” Though not completely clear, it seems as if the participant is eluding to sexist treatment and how it triggered her impostor beliefs.

Another participant clarified that her impostor beliefs were triggered from external, more powerful factors outside of her control. She states, “I found out that I wouldn’t be able to take summer classes this summer and I don’t know how I’m gonna finish school on time.” Here, the participant describes how external barriers threaten her academic progress, thus, resulting in the activation of impostor beliefs.
Summary

The qualitative data responses provide ample information about how context influences and activates the impostor phenomenon for Black women college students. Figure 3 illustrates the connectedness between the four core categories suggesting that for these participants, the impostor phenomenon is dynamic and is shaped by both intrapsychic and external features. Participant narratives highlight how both internal and external factors related to self-concept, environmental settings, interpersonal dynamics, power, and identity matter when interrogating the nature of impostor beliefs for this population of students.

Study Two: Quantitative Data

To better understand the characteristics of triggering events for impostor beliefs, the researcher conducted a series of fifteen simple linear regression analyses with characteristics of the impostor event as the independent variables and each participant's total number of triggering events (frequency) as the outcome variable. The researcher also conducted one additional linear regression analysis with proportion of reported emotional intensity of triggering events as the outcome variable and number of reported incidents (frequency) as the independent variable.
Linear regression, a statistical method employed in predictive analysis, explains the relationship between independent variable(s) and the outcome variable. The researcher calculated the proportion of overall reported intensity level for each participant, proportion of events according to total number of those involved (by oneself, 1-5, 6-10, 11 or more), proportion of events according to gender characteristics (woman, not woman, and mixed gender), proportion of events according to racial characteristics (White, Black, non-Black people of color, mixed race group), and proportion of events according to status breakdown (lower status, same status, higher status, or mixed status) as dependent variables.

The mean number of reported incidents per participant was 2.73 (SD = 1.46) and the average proportion of intensity was 0.62 (SD = 0.12). Table 7 provides the means and standard deviations of proportions for all dependent variables.
Table 7. Means and Standard Deviations for Proportion for Dependent Variables

<table>
<thead>
<tr>
<th>Number of Individuals Involved</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>0.17</td>
<td>0.30</td>
</tr>
<tr>
<td>1-5</td>
<td>0.57</td>
<td>0.35</td>
</tr>
<tr>
<td>6-10</td>
<td>0.06</td>
<td>0.16</td>
</tr>
<tr>
<td>11+</td>
<td>0.27</td>
<td>0.33</td>
</tr>
<tr>
<td>Gender of Those Involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>0.33</td>
<td>0.31</td>
</tr>
<tr>
<td>Not Woman</td>
<td>0.12</td>
<td>0.26</td>
</tr>
<tr>
<td>Mixed Gender</td>
<td>0.43</td>
<td>0.36</td>
</tr>
<tr>
<td>Race of Those Involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>0.12</td>
<td>0.24</td>
</tr>
<tr>
<td>White</td>
<td>0.27</td>
<td>0.29</td>
</tr>
<tr>
<td>Non-Black People of Color</td>
<td>0.03</td>
<td>0.08</td>
</tr>
<tr>
<td>Mixed Race</td>
<td>0.48</td>
<td>0.38</td>
</tr>
<tr>
<td>Status of Those Involved</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Status</td>
<td>0.25</td>
<td>0.30</td>
</tr>
<tr>
<td>Same Status</td>
<td>0.31</td>
<td>0.36</td>
</tr>
<tr>
<td>Lower Status</td>
<td>0.01</td>
<td>0.05</td>
</tr>
<tr>
<td>Mixed Status</td>
<td>0.33</td>
<td>0.38</td>
</tr>
</tbody>
</table>

The results of the regression analyses found a significant relationship between incidents that involved a high number of people (eleven or more individuals) and total number of reported incidents ($\beta = -.502$, SE = .792, p < .05). No significant results were found for reported incidents that involved only the participant (self), a small number of individuals (1-5 people), or a medium number of individuals (6-10 people). See Table 8 for a description of the regression analyses for all predictor variables.
Table 8. Regression Table for Number of Incidents (Frequency) and Characteristics of Triggering Events as Predictor

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of People Involved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self</td>
<td>-.566</td>
<td>.969</td>
<td>-.118</td>
<td>.564</td>
</tr>
<tr>
<td>Small (1-5)</td>
<td>1.075</td>
<td>.844</td>
<td>.262</td>
<td>.216</td>
</tr>
<tr>
<td>Medium (6-10)</td>
<td>1.1667</td>
<td>1.880</td>
<td>.131</td>
<td>.541</td>
</tr>
<tr>
<td>High (11+)</td>
<td>-2.158</td>
<td>.792</td>
<td>-.502</td>
<td>.012*</td>
</tr>
<tr>
<td><strong>Gender of Those Involved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woman</td>
<td>.210</td>
<td>.993</td>
<td>.045</td>
<td>.835</td>
</tr>
<tr>
<td>Not Woman</td>
<td>-.752</td>
<td>1.168</td>
<td>-.136</td>
<td>.527</td>
</tr>
<tr>
<td>Mixed Gender</td>
<td>-.088</td>
<td>.829</td>
<td>-.022</td>
<td>.916</td>
</tr>
<tr>
<td><strong>Race of Those Involved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-1.013</td>
<td>1.252</td>
<td>-.170</td>
<td>.427</td>
</tr>
<tr>
<td>White</td>
<td>1.355</td>
<td>.989</td>
<td>.280</td>
<td>.184</td>
</tr>
<tr>
<td>Non-Black People of Color</td>
<td>5.143</td>
<td>3.423</td>
<td>.305</td>
<td>.147</td>
</tr>
<tr>
<td>Mixed Race</td>
<td>-1.192</td>
<td>.753</td>
<td>-.320</td>
<td>.127</td>
</tr>
<tr>
<td><strong>Status of Those Involved</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher Status</td>
<td>.345</td>
<td>1.004</td>
<td>.073</td>
<td>.735</td>
</tr>
<tr>
<td>Same Status</td>
<td>.512</td>
<td>.845</td>
<td>.128</td>
<td>.551</td>
</tr>
<tr>
<td>Lower Status</td>
<td>4.909</td>
<td>5.911</td>
<td>.178</td>
<td>.416</td>
</tr>
<tr>
<td>Mixed Status</td>
<td>-1.314</td>
<td>.770</td>
<td>-.349</td>
<td>.103</td>
</tr>
</tbody>
</table>

*p < .05

The results of the regression analyses found no significant relationships regarding the gender of those involved, the race of those involved, or the status of those involved. However, significant results were found between total number of reported incidents and proportion of intensity indicating that a greater number of reported incidents predicted an increase in emotional intensity of the reported incidents (β = .580, SE = .013, p < .05).

Table 9. Regression Table for Proportion of Intensity and Number of Incidents (Frequency) as Predictor

<table>
<thead>
<tr>
<th>Subhead</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Incidents</td>
<td>.047</td>
<td>.013</td>
<td>.580</td>
<td>.002*</td>
</tr>
</tbody>
</table>

*p < .05
CHAPTER FIVE
DISCUSSION

This chapter offers interpretations of each study’s findings and how the results relate to existing scholarship. Additionally, the researcher provides implications for clinical practice, clinical training, policy, and outreach and prevention initiatives. This chapter also poses suggestions for future research areas while interrogating the study’s limitations. Lastly, the chapter ends with a conclusion.

The present study sought to intentionally employ an intersectionality theory framework to examine how Black women college students attending PWIs experience the impostor phenomenon. Specifically, the researcher posed two research questions that resulted in two separate studies: 1) Do global impostor feelings mediate the relationship between the endorsement of group stereotypical beliefs and mental health outcomes? and 2) Utilizing a diary study methodology, does situational context (status, race, and gender of those involved, number of people) influence event-contingent endorsement of impostor beliefs?

**Hypothesis 1: Mediation Analyses – Depression and Anxiety**

The results of the mediation analyses indicated that impostor beliefs fully mediate the effect of susceptibility to group stereotype threat on depression and partially mediate the effect on anxiety, supporting the initial mediation hypothesis. As such, participants who were more likely to endorse group stereotypical beliefs also endorsed more depression symptoms, particularly when endorsing higher levels of impostor beliefs. Results from the mediation
analysis examining impostor beliefs and susceptibility to group stereotype threat on anxiety found a partial mediation meaning that participants reporting more group stereotypical beliefs and impostor beliefs endorsed more anxiety symptoms than participants less likely to endorse group stereotype threat susceptibility and impostor beliefs. These results suggest that impostor beliefs do not completely explain the relationship between susceptibility of group stereotype threat and anxiety.

The results from study one support the scant literature on Black women college students’ mental health and corroborate beforementioned scholarship on the impact of stereotype endorsement on mental health outcomes for Black women (Ashley, 2014; Jerald, Cole, Ward, & Avery, 2017; Walley-Jean, 2009; Watson & Hunter, 2015; Woods-Giscombe, 2010). The present study additionally both supports and extends the findings from Bernard and colleagues study (2017) examining the influence of gender and racial discrimination on IP and mental health outcomes among Black college students. While the researchers posited that gender and discrimination might intersect to worsen IP, this present study highlights how other aspects of racism such as stereotype endorsement exacerbate the effects of IP on mental health outcomes for Black women students. Suggesting that, for Black women college students, susceptibility to group stereotype endorsement is related to devaluing one’s capabilities and sense of accomplishment offering evidence to the hypothesis that the impostor phenomenon is contextual and not solely an internal phenomenon.

Findings from this study seemed to differ from other key conclusions found in previous studies examining IP among students of color. For instance, Cokley and colleagues (2013) found that impostor beliefs among an ethnic minority college student sample were a stronger predictor of mental health outcomes over minority status stress. The researchers explained these results by
suggesting that IP and psychological distress/well-being serve as individualistic constructs whereas minority status stress is a collectivistic construct based on “being part of an ethnic minority group” (p. 92). The results of the present study slightly diverge on this conclusion by proposing that while IP is often viewed as an internal perception and an individualistic construct, its internal development is likely shaped by an awareness of external information and collectivistic ideals. Consequently, the results highlight the influence of group status and identification on impostor beliefs by illustrating how the degree to which one identifies with a group and endorses stereotypes about said group could predict IP and mental health outcomes.

As such, the study’s results most align with Shapiro and Neuberg’s multi-threat framework (2007) proposing that group identification and stereotype endorsement are pivotal in assessing vulnerability to stereotype threat. As previously mentioned, the multi-threat framework posits six qualitatively diverse types of stereotype threat emerging from two different dimensions: the target of the threat (self or group) and the source of the threat (self, outgroup, ingroup). Meaning, differently stereotyped groups are susceptible to encountering different types of stereotype threats as a result of their identification to their group and their belief in said stereotype (Shapiro, 2011; Shapiro & Neuberg, 2007).

Considering the present study’s findings (increased vulnerability to group stereotype endorsement predicting negative mental health outcomes through IP), examining group identification and stereotype endorsement are also critical in assessing vulnerability to impostor beliefs for Black women students. Consequently, this study suggests that a similar framework for understanding IP could be beneficial towards better studying and understanding the construct and its impact on individuals with various identities and vulnerabilities.
Hypothesis 2: Contextual Predictors for Impostor Beliefs

Study two utilized ESM to further investigate contextual factors preceding impostor beliefs. Qualitative data highlighted four core contextual categories associated with reported impostor beliefs: Negative Classroom Dynamics, Concerns About Others’ Perceptions of Their Competence, Viewing Self and Abilities Negatively, and Negative Experiences with Authority.

The narratives associated with Negative Classroom Dynamics illustrate how Black women college students attending PWIs are often disregarded by their peers in the classroom substantiating elements of gendered racial microaggressions literature around the theme of silence and marginalization (Lewis, Mendenhall, Harwood, & Browne Huntt, 2010; Lewis & Neville, 2015). Silence and marginalization, according to Lewis and Neville (2015) refers to a commonly experienced gendered racial microaggression that occurs in academic and professional settings that involves a “power struggle for respect (perceived authority and/or intellect questioned or challenged in work or professional settings) and invisibility (perceptions of being ignored and made to feel invisible in work or professional settings)” (p. 291). As such, many of the participant narratives endorsing this theme addressed unpleasant interpersonal experiences, barriers towards understanding and communicating, and a pressure to excel because of perceptions about their race.

This theme was further connected to The Concerns About Others’ Perceptions of Their Competence category, illustrating a heightened sensitivity about being viewed as unintelligent or incompetent to significant others. While most IP literature conceptualizes this concern as an internal or individualistic issue, narratives associated with this category support other scholarship about Black women’s experiences in PWIs such as Hammon, Woodside, Pollard and Roman’s qualitative study (2016). The researchers highlight how Black women students attending PWIs
navigate expectations from others and themselves by pushing themselves to work harder and achieve more to avoid confirming others’ low expectations of them. Thus, carrying the onus of rejecting stereotypes and proving competence – a theme consistent across literature exploring the experiences of Black students on majority White campuses (Fries-Britt & Turner, 2001; McGee & Martin, 2011; Winkle-Wagner, Kelly, Luedke, & Reavis, 2019)

In the present study, the Viewing Self and Abilities theme described instances of participants internalizing negative external stimuli as confirmation of their own internal negative self-beliefs. This theme corresponds with literature on IP highlighting the relationship between IP endorsement, self-perceptions and appraisals, and self-esteem. Leary, Patton, Orlando, and Funk’s studies on IP (2000) among a college student sample found that high impostors were more likely to have lower self-appraisals, lower reflected appraisals, and lower performance expectations when their responses were public rather than private. Relatedly, researchers have also examined the role of self-esteem in IP vulnerability finding that those endorsing higher reported levels of IP experienced diminished self-esteem following a failure when compared to those not endorsing IP (Cozzarelli & Major, 1990). Further, self-esteem is considered to have a mediating relationship between racial identity and IP for Black college students (Lige, Peteet, & Brown, 2017) and between perfectionism and IP for college students (Cokley et al., 2018). Taken in conjunction, the present study illustrates how important an individual’s internal world and sense of self relates to their experience with the impostor phenomenon.

Lastly, the final theme, Negative Experiences with Authority, addresses the role of power dynamics in the activation of impostor beliefs for Black women college students. Objectively, students have less power than faculty and staff in academic contexts and are vulnerable to unethical boundary violations and exploitation, as a result (Rupert & Holmes, 1997). However,
Black women students must navigate not only the power differentials associated with the student role, but also the power differentials associated with their social identities. In the present study, participants provided examples of authority figures expressing disapproval towards them, questioning their competence, and utilizing their power over them. Participants also described examples of systemic barriers that caused them to endorse impostor beliefs.

Related to participants’ experiences with authority figures and larger systems, previous research proposes a relationship between Black students’ college success and strength of faculty relationships (Astin, 1999), and highlights how students of color often report disparities in quality of faculty relationships at PWIs when likened to those at HBCUs (McCoy, Luedke, & Winkle-Wagner, 2017). Compared to White, Asian, and Latino/a students, Black students perceived more racial tension on campus and reported a greater degree of faculty racism (Ancis, Sedlacek, & Mohr, 2000). Black students are also prone to believe that they must prove their academic capabilities to faculty (Fries-Britt & Turner, 2001). And Black women students tend to “pick and choose their battles” considering factors such as power differentials between themselves and their perpetrators when coping with discrimination and microaggressions (Lewis, Mendenhall, Harwood, & Browne Huntt, 2013). Regarding IP and faculty relationships, Graham and McClain (2019) found that for Black college students, connectedness to the university was associated with more reported belongingness and mentorship and lower reported IP.

In addition to identifying specific negative faculty experiences, participants endorsing this category also acknowledged unpleasant experiences with general authority figures such as work supervisors making discriminatory statements. Again, a theme consistent across research (Bell, Meyerson, Nkomo, & Scully, 2003; Dickens & Chavez, 2018). Results from the present study support these research findings and illuminate how negative experiences with those in
positions of power leads Black women college students to question their own competence and abilities.

The four core categories considered together validate previous research on Black women college students and the impact of specific contextual and environmental factors on these students’ mental health and internal beliefs. For instance, Domingue’s qualitative study (2015) found that Black women student leaders navigate various forms of oppression often resulting in them managing their behaviors to avoid being associated with gendered racial stereotypes, having peers question their abilities to lead and their competence, and being silenced and dismissed. The results also directly relate to the findings from Stone and colleagues’ recent qualitative analysis (2018) on a culturally informed model of IP among Black graduate students attending PWIs. The researchers revealed five key themes (Awareness of Low Racial Representation, Questioning Intelligence, Expectations, Psychosocial Costs, and Explaining Success Externally) with participant narratives that closely resemble the sample from the present research. Results from the present study, though, directly extend the understanding of Black women’s distinct experiences attending PWIs by illustrating how these negative experiences leave Black women students vulnerable to impostor beliefs.

Study two’s quantitative data found that the characteristics of the impostor incident did not have any significant predictive quality on the number of incidents a participant endorsed, aside from participants who reported eleven or more individuals involved in the triggering incident. Given the researcher’s assumption that the identities of those involved and status of those involved would be associated with an increase in reported impostor beliefs, these results are somewhat surprising. However, these quantitative results should be taken cautiously considering the small number of participants (n=26) included. For comparison, a recent ESM
study exploring impostor beliefs of first-generation students in STEM classes utilized a sample of 818 students and captured 2,638 observations (Canning, LaCosse, Kroeper, & Murphy, 2019). Nonetheless, the results do indicate that a larger number of individuals involved in an impostor activating situation is significant to impostor belief endorsement.

Additionally, the quantitative data results found that the number of reported impostor incidents did predict reported level of emotional intensity for participants. These findings are significant given that research on the impostor phenomenon often categorizes IP as a global report rather than a construct activated by different contexts and situations. As such, the present study investigates impostor beliefs by triggering incident finding that participants who endorsed a higher frequency of impostor-related incidents also experienced increased overall emotional intensity corroborating previous research on increased IP and decreased psychological wellbeing (Cokley et al., 2013, 2017; McClain et al., 2016; Peteet et al., 2015).

**Implications**

**Implications for Clinical Practice and Training**

These findings offer several implications for clinical practice and training, primarily for clinicians and trainees in university and college counseling (UCC) environments. Previous researchers (Cokley et al., 2017) have urged clinicians in UCCs to contemplate adding questions about impostor beliefs into typical intake questionnaires given the breadth of research associating IP with psychological distress. UCC counselors could benefit from specifically inquiring about classroom dynamics, internal sense of abilities, perceptions of others’ views on their capabilities, and past experiences with authority figures or systems that either felt affirming or invalidating.

Additionally, UCCs could incorporate questions about students’ past and recent experiences with stereotypes, microaggressions, and oppression, the salience of their
sociocultural identities, and how they experience the campus climate. Including inquiries about students’ sociocultural backgrounds and experiences offers a more nuanced appreciation of environmental factors on overall wellbeing and a more contextual base for client case conceptualizations. UCCs might also engage in more targeted outreach programs for Black women students, specifically around triggers for impostorism. Such targeted programming should seek to diminish susceptibility to group stereotype threat and vulnerability to psychological distress by increasing critical consciousness and building community.

The present research also informs clinical training, primarily around multicultural counseling development. Research on multicultural education differentiates individuals possessing knowledge of cultural considerations and their actual implementation of this knowledge when working with clients (Owen, Tao, Leach, & Rodolfa, 2011). For this reason, training programs must provide students with a solid foundational base of culturally informed theoretical frameworks such as intersectionality and critical race theory to deepen the meaning and application of social justice principles (Rivera, 2017). As such, trainees should learn of the dangers of generalizing groups by singular and focused analyses of one identity while not considering within-group differences, such as how Black women’s experiences are not easily generalizable to the experiences of women as a broad gender category nor are they generalizable to the experiences of Black people as a broad racial category due to their unique and compounded identity.

Implications for Policy and Prevention

Vera and Speight (2003) call for a greater social justice footing in multicultural counseling competencies that addresses not merely microlevel interventions, but larger macrolevel interventions. As such, universities must invest resources in creating academic
atmospheres and campus communities that are affirming and truly inclusive of Black women students, currently the most educated demographic of students in the United States (U.S. Department of Education, National Center for Education Statistics, 2019). Recommendations include recruiting and retaining Black faculty and staff (Kelly, Gayles, & Williams, 2017); increasing course offerings on topics about Black women (McCluskey, 1994); supporting and funding organizations centering Black women students such National Pan-Hellenic Counsel sororities, National Council of Negro Women chapters, and other pre-professional and social organizations (Greyerbiehl & Mitchell, 2014); training faculty, staff, and students on implicit bias and discrimination (Sue, Torino, Capodilupo, Rivera, & Lin, 2009); and, lastly, holding faculty, staff, and students accountable with consequences for incidents of bias and discrimination (Quaye & Harper, 2007).

Further, the study highlights the impact of interpersonal dynamics between both peers and authority figures. Universities should consider developing opportunities for student empowerment by altering course evaluations to not only address instruction based learning and experiences, but also opportunities for feedback on classroom inclusion and interpersonal dynamics between peers and faculty. Such interventions could minimize power differentials and incentivize faculty to be more diligent in attending to their classroom’s atmosphere.

The findings from the present research accentuate a need for preventative measures towards the development of IP for Black women college students. Black women students could benefit from interventions that target psychological empowerment by strengthening group identification (Molix & Bettencourt, 2010). Positive attitudes towards Blackness serve as protective factors and promote self-esteem for Black women (Patterson, 2004). Several
participants shared that their impostor beliefs were activated by viewing their abilities negatively, highlighting a need for prevention efforts addressing self-esteem and resilience. Research finds that Black women’s self-esteem is often rooted in community rather than self, and Black women tend to liberate themselves through empowerment as opposed to a victim-centered perspective (Patterson, 2004). Consequently, prevention strategies should center on increasing group identification for Black women students while stressing the value of community and social support as protective and growth-fostering tools.

Supplementing the promotion of self-esteem, preventative strategies should also promote resilience, defined as the ability to “bounce back” from adversity (Wang & Gordon, 1994). Considering cultural nuances in one’s ability to practice resiliency despite hardships, the American Psychological Association Task Force on Resilience and Strength in Black Children and Adolescents (2008) emphasizes four themes associated with resilience for Black youth: critical mindedness or the ability to analyze oppression, active engagement or the agency to positively engage one’s setting, flexibility or adaptability across contexts, and communalism or a focus on collective wellbeing. Emphasizing these four themes in prevention strategies should assist in the minimization of IP vulnerability for Black women students.

Furthermore, university faculty and student affairs professionals can also engage in preventative measures to reduce IP susceptibility for their Black women students. Specifically, faculty and staff are strongly encouraged to educate themselves about the myriad of barriers outlined in this dissertation that Black women students encounter during their college careers; facilitate affirming mentorship opportunities with a foundation of support and respect; and provide ample opportunities for both formal and informal ongoing feedback from Black women students on their experiences in the classroom and during extracurricular activities. Adhering to
these steps may result in systemic changes that distribute accountability for the prevention of IP for these students to those in positions of authority on college campuses.

**Limitations and Future Research**

**Limitations**

The present research has several limitations. Firstly, the impostor phenomenon is contingent on an individual being objectively competent and the researcher did not employ specific criteria distinguishing “high-achieving” participants from others. However, the concept of “high-achievement” or success is often socially pre-determined according to majority-group values and norms despite variations in definition and expectations across communities and cultures (Stephens, Fryberg, Markus, Johnson, & Covarrubias, 2012). According to cultural mismatch theory, PWIs continue to promote values that often misalign with cultural values endorsed by students of color and first-generation students (Covarrubias, Valle, Laiduc, & Azmitia, 2019; Stephens et al., 2012). For this reason, it is challenging to utilize a lens of objectivity with a concept that is extremely subjective. However, future research might consider employing GPA cutoffs, assessing participants various awards or leadership achievements, or selecting students from “elite” institutions in their inclusion criteria.

Regarding both studies, within-group differences may offer additional limitations to the project due to the experience of the impostor phenomenon and stereotype threat potentially being related to the participants’ external appearance. Research notes that Black women are treated differently due to variations of skin color, hair texture, body size, and other aspects of appearance (Capodilupo & Kim, 2014). Meaning, some Black women may experience preferential treatment from ingroup and outgroup members due to proximity to White beauty standards, and others may experience compounded gendered racial discrimination and
stereotypes due to colorism (Wilder, 2010), fatphobia (Strings, 2019), and other overlapping systems of oppression.

Further, study two’s results may have been impacted by previous knowledge of the impostor phenomenon. While participants engaged in the research project were never explicitly informed that the studies related to the impostor phenomenon, some participants may have had familiarity with the concept. As a result, participants aware of the impostor phenomenon may have adjusted their answers and underreported due to potential stigma of associating with the construct or they could overreport due to social desirability effects (Toh, Lee, & Hu, 2006). Additionally, participating in the diary study could have increased participants’ attention to the impostor phenomenon and triggering events in their daily lives, resulting in a priming effect. Consequently, the participants’ level of self and social awareness may have contributed to the results of the study.

Further, as participants proceeded with the diary study, their increased familiarity and attention to the impostor phenomenon had the potential to negatively impact their well-being and/or intensity of emotional reactions. Fortunately, participants completed a final debriefing session with the researcher at the completion of the study to discuss reactions to completing the project.

Related to the participant criteria, participants were recruited utilizing paper flyers, publicly accessible emails, and social media sites that focus on Black women and Black women college students. While these methods of recruitment are an accessible and successful strategy for reaching participants within this age group, it could also result in limited engagement from potential participants who do not identify as heavily with their Black woman identity and who are not active affiliates of social networking organization, pages and sites catering to Black
women. Future samples might consider recruiting to a wider variety of groups that might serve Black women, but do not solely serve Black women such as women’s groups or student of color groups.

Additionally, the researcher engaged in multiple forms of recruitment including emails sent to more than 1,500 contacts, physical flyers, and snowball sampling. As such, the researcher was unable to assess response rate due to the inability to confirm the exact number of potential participants who received the survey. Relatedly, participants for study two were limited in geographical scope with participants attending institutions in close proximity to one large Midwestern city. Perhaps including participants attending institutions across the U.S. would have allowed for more diverse experiences and perspectives.

Another limitation to the present research is the small number of participants included in study two. To further deepen the studied phenomenon, the data could have benefited from a much larger sample size which would have provided an opportunity to employ multilevel modeling (MLM). MLM analyzes nested data or data existing at different levels (individual and group levels) and is particularly ideal for longitudinal data (Kahn, 2011). Like most statistical analyses, MLM benefits from larger sample sizes because the statistical power is impacted by the sample sizes at the data’s multiple levels.

Future Research

Future research on the impostor phenomenon and college student populations should consider how interlocking systems of oppression impact the endorsement of impostor beliefs. As such, a research approach utilizing intersectionality theory as a guiding framework is most ideal. Accounting for the diversity of student experiences and considering both internal and external
factors on the development of impostor beliefs, should prove beneficial to the overall body of IP literature.

Like previous studies have recommended (Lige, Peteet, & Brown, 2017), future scholarship might investigate the differences between IP’s prevalence among Black women college students attending PWIs and Black women college students attending HBCUs. Given that Black women students attending PWIs are vulnerable to microaggressions and invisibility from their peers and other authority figures, it would be beneficial to better understand the predictors for IP in an environment with a more racially homogenous student body. As such, researchers and practitioners alike could develop more culturally and contextually appropriate interventions for these different populations of students.

Though the present study utilized ESM and technology to further understanding of the context of impostor beliefs as they occur, future studies might focus on moments when Black women students feel affirmed and validated. Such research could lead to initiatives promoting inclusion from a strengths-based lens, while minimizing some of the secrecy and fear Black women students hold in regards to speaking openly about their impostor beliefs. Lastly, future work might consider treatment interventions for Black women college students identifying as high impostors. While there is significant literature exploring the contextual predictors for IP and significant research associating IP endorsement with psychological distress, there is limited scholarship on effective treatment options that consider all of these factors.

**Conclusion**

These two studies utilized an intersectionality framework to intentionally examine the impostor phenomenon for Black women college students attending PWIs. As PWIs become
increasingly more diverse, researchers and practitioners must devote more scholarship and resources towards supporting this student population who often encounter compounded forms of oppression that impact their internal sense of self and their psychological wellbeing. While previous research has explored how concepts like the impostor phenomenon, identity, and discrimination impact students of color, little research has properly attended to an intersectionality framework to explore the particular vulnerabilities for Black women college students. The present studies offers insight into how group stereotype susceptibility and contextual factors relate to the activation of impostor beliefs and associated emotional intensity and psychological distress. The findings of the study illuminate the need for more culturally responsive and contextual studies on the development and impact of impostor beliefs for this population, while providing suggestions related to clinical practice and training, prevention, and policy.
APPENDIX A

CONSENT FORMS
CONSENT TO PARTICIPATE IN RESEARCH

**Project Title:** Exploring the Experiences and Well-Being of Black Women College Students  
**Researcher(s):** Lincoln Hill, MA  
**Faculty Sponsor:** Dr. Elizabeth Vera

**Introduction:**  
You are being asked to take part in a research study being conducted by Lincoln Hill, MA, a doctoral student in the School of Education at Loyola University Chicago. The study is being overseen by Dr. Elizabeth Vera, a faculty member in the School of Education at Loyola University Chicago.

You are being asked to take part in this study exploring factors related to the well-being of Black women college students. You are being asked to participate because you are an adult 18 years or older, are currently enrolled at a four-year program at a predominantly White institution, and identify as a Black woman. This form has important information about the reason for doing this study, what the researcher will ask you to do if you decide to be in this study, and the way the researcher would like to use information about you if you choose to be in the study.

Please read this form carefully before deciding whether to participate in this study.

**Purpose:**  
The purpose of this study is to understand factors related to the well-being of Black women college students.

**Procedures:**  
If you agree to be in the study, you will be asked to complete a short demographic questionnaire and to participate in a web-based survey. Your entire participation in the study will take approximately 10-15 minutes.

**Risks/Benefits:**  
There is potential for emotional stress for participants during and after completion of the surveys. If needed, please utilize the following resources: The American Psychological Association's guidelines for dealing with racial discrimination (http://www.apa.org/helpcenter/discrimination.aspx) and contact information for the National Suicide Prevention & Crisis Hotline at 1.800.273.TALK to be connected with a crisis counselor. Results of the study will help psychologists, and social service professionals better understand the experiences and well-being of Black women college students.

**Compensation:**  
Participants will be compensated with a $15 online gift card and will have an opportunity to enter a raffle to win one of four $25 gift cards.
Confidentiality:
The researcher will protect the privacy of those who participate in the research study. Confidentiality will be maintained to the degree permitted by the technology used. No identifying information will be shared with anyone who is not connected with the research project. Information presented at conferences or for publication will not identify any individuals who participated. No identifying information will be collected on the demographic form or any of the surveys. There are no questions in the interview that will ask about identifying information. Participants will not be able to delete information already submitted on the survey since it is anonymous. Data will not be able to be identified and therefore removed if participant wants to end participation. Survey responses will be kept in a secured password-protected file.

Voluntary Participation:
Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty.

Contacts and Questions:
If you have questions about this research study, please feel free to contact Lincoln Hill, MA at lhill10@luc.edu and/or Dr. Elizabeth Vera, at evera@luc.edu.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.
CONSENT TO PARTICIPATE IN RESEARCH

Project Title: Exploring the Experiences and Well-Being of Black Women College Students
Researcher(s): Lincoln Hill, MA
Faculty Sponsor: Dr. Elizabeth Vera

Introduction:
You are being asked to take part in a research study being conducted by Lincoln Hill, MA, a doctoral student in the School of Education at Loyola University Chicago. The study is being overseen by Dr. Elizabeth Vera, a faculty member in the School of Education at Loyola University Chicago.

You are being asked to take part in this study exploring factors related to the well-being of Black women college students. You are being asked to participate because you are an adult 18 years or older, are currently enrolled at a four-year program at a predominantly White institution, and identify as a Black woman. This form has important information about the reason for doing this study, what the researcher will ask you to do if you decide to be in this study, and the way the researcher would like to use information about you if you choose to be in the study.

Please read this form carefully before deciding whether to participate in this study.

Purpose:
The purpose of this study is to understand factors related to the well-being of Black women college students.

Procedures:
If you agree to be in the study, you will be asked to attend a 30 minute training session with the researcher, provide demographic information proving you eligible for participation, receive instructions on completing daily diary entries, and have the opportunity to ask any lingering questions about their involvement in the study. Participants will be instructed to report any daily instances of low confidence or faked competence through a cell phone application. If these incidents are not applicable, participants will have the option to deny any related incidents in their daily entry. Following their training session, participants will be instructed to record and submit their responses over a trial period of three days. Should there be no issues or concerns following the trial period, participants will then proceed with the 14-day daily diary recording. Participants will receive daily notifications through the app or via email if they do not have a smartphone at 8:00pm each day prompting them to complete their diary entry before 11:59pm.

Risks/Benefits:
There are no foreseeable risks involved in participating in this research beyond those experienced in everyday life. Results of the study will help psychologists, and social service professionals better understand the experiences and well-being of Black women college students.
Compensation:
Participants will receive $30 for their inclusion in the study and up to $10 in travel reimbursement.

Confidentiality:
The researcher will protect the privacy of those who participate in the research study. Confidentiality will be maintained to the degree permitted by the technology used. No identifying information will be shared with anyone who is not connected with the research project. Information presented at conferences or for publication will not identify any individuals who participated. No identifying information will be collected on the demographic form or any of the surveys. There are no questions in the interview that will ask about identifying information. Survey responses will be kept in a secured password-protected file.

Voluntary Participation:
Participation in this study is voluntary. If you do not want to be in this study, you do not have to participate. Even if you decide to participate, you are free not to answer any question or to withdraw from participation at any time without penalty.

Contacts and Questions:
If you have questions about this research study, please feel free to contact Lincoln Hill, MA at lhill10@luc.edu and/or Dr. Elizabeth Vera, at evera@luc.edu.

If you have questions about your rights as a research participant, you may contact the Loyola University Office of Research Services at (773) 508-2689.

Statement of Consent:
Please check the boxes next to the statements below and provide your signature to provide consent for the recording of the interview and for your participation in this study.

___ I have read the information provided above.
___ I have had the opportunity to ask and have had answered all of my questions about this study.
___ I voluntarily agree to participate in this study.
___ I understand that I will receive a copy of this form after it has been signed if I want one.

__________________________  ___________________
Signature of Research Subject                Date
APPENDIX B

MULTI-THREAT SCALE
Modified Version of Shapiro’s Multi-Threat Scale (2011)

<table>
<thead>
<tr>
<th>Not At All</th>
<th>Slightly</th>
<th>Moderately</th>
<th>Very</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

For these 12 questions, consider stereotypes others hold about Black women. Please think about your actions in an academic or professional setting with predominantly non-Black women. When you are in these types of situations, …

[1] . . . to what extent are you concerned that your actions will lead you to see yourself as actually possessing the negative stereotypes that others have about Black women?

[2] . . . to what extent are you concerned that your actions could imply negative things about your abilities in your own mind?

[3] . . . to what extent are you concerned that your actions could confirm, in your own mind, that the negative stereotypes others have about Black women are true of you?

[4] . . . to what extent are you concerned that your actions will confirm, in your own mind, that the negative stereotypes are true about Black women?

[5] . . . to what extent are you concerned that your actions will prove to yourself that the stereotypes are true about Black women?

[6] . . . to what extent are you concerned that your actions will lead you to believe that the stereotypes about Black women are true?

[7] . . . to what extent are you concerned that because you are a Black woman, your actions could influence the way other people interact with you?

[8] . . . to what extent are you concerned that your actions could lead you to be judged negatively by others because you are a Black woman?
[9]. . . to what extent are you concerned that your actions could lead others to judge you based on the stereotypes about Black women?

[10]. . . to what extent are you concerned that your actions will reinforce the negative stereotypes, to others, about Black women?

[11]. . . to what extent are you concerned that your actions might poorly represent Black women?

[12]. . . to what extent are you concerned that your actions might confirm the negative stereotypes in the minds of others about Black women?
APPENDIX C

CLANCE IMPOSTOR PHENOMENON SCALE
Clance IP Scale

For each question, please circle the number that best indicates how true the statement is of you. It is best to give the first response that enters your mind rather than dwelling on each statement and thinking about it over and over.

<table>
<thead>
<tr>
<th>Not at all true</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

1. I have often succeeded on a test or task even though I was afraid that I would not do well before I undertook the task.
2. I can give the impression that I’m more competent than I really am.
3. I avoid evaluations if possible and have a dread of others evaluating me.
4. When people praise me for something I’ve accomplished, I’m afraid I won’t be able to live up to their expectations of me in the future.
5. I sometimes think I obtained my present position or gained my present success because I happened to be in the right place at the right time or knew the right people.
6. I’m afraid people important to me may find out that I’m not as capable as they think I am.
7. I tend to remember the incidents in which I have not done my best more than those times I have done my best.
8. I rarely do a project or task as well as I’d like to do it.
9. Sometimes I feel or believe that my success in my life or in my job has been the result of some kind of error.
10. It’s hard for me to accept compliments or praise about my intelligence or accomplishments.
11. At times, I feel my success has been due to some kind of luck.
12. I’m disappointed at times in my present accomplishments and think I should have accomplished much more.
13. Sometimes I’m afraid others will discover how much knowledge or ability I really lack.
14. I’m often afraid that I may fail at a new assignment or undertaking even though I generally do well at what I attempt.
15. When I’ve succeeded at something and received recognition for my accomplishments, I have doubts that I can keep repeating that success.

16. If I receive a great deal of praise and recognition for something I’ve accomplished, I tend to discount the importance of what I’ve done.

17. I often compare my ability to those around me and think they may be more intelligent than I am.

18. I often worry about not succeeding with a project or examination, even though others around me have considerable confidence that I will do well.

19. If I’m going to receive a promotion or gain recognition of some kind, I hesitate to tell others until it is an accomplished fact.

20. I feel bad and discouraged if I’m not “the best” or at least “very special” in situations that involve achievement.
APPENDIX D

MENTAL HEALTH INVENTORY
MENTAL HEALTH INVENTORY (MH1-18)

The next set of questions are about how you feel, and how things have been for you during the past 4 weeks. If you are marking your own answers, please circle the appropriate response (0, 1, 2,...). Please answer every question. If you are not sure which answer to select, please choose the one answer that comes closest to describing you.

**During the past 4 weeks, how much of the time...**

<table>
<thead>
<tr>
<th>All of the time</th>
<th>Most of the time</th>
<th>A good bit of the time</th>
<th>Some of the time</th>
<th>A little bit of the time</th>
<th>None of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

1. has your daily life been full of things that were interesting to you? 1 2 3 4 5 6
2. did you feel depressed? 1 2 3 4 5 6
3. have you felt loved and wanted? 1 2 3 4 5 6
4. have you been a very nervous person? 1 2 3 4 5 6
5. have you been in firm control of your behavior, thoughts, emotions, feelings? 1 2 3 4 5 6
6. have you felt tense or high-strung? 1 2 3 4 5 6
7. have you felt calm and peaceful? 1 2 3 4 5 6
8. have you felt emotionally stable? 1 2 3 4 5 6
9. have you felt downhearted and blue? 1 2 3 4 5 6
10. were you able to relax without difficulty? 1 2 3 4 5 6
11. have you felt restless, fidgety, or impatient? 1 2 3 4 5 6
12. have you been moody, or brooded about things? 1 2 3 4 5 6
13. have you felt cheerful, light-hearted? 1 2 3 4 5 6
14. have you been in low or very low spirits? 1 2 3 4 5 6
15. were you a happy person? 1 2 3 4 5 6
16. did you feel you had nothing to look forward to? 1 2 3 4 5 6
17. have you felt so down in the dumps that nothing could cheer you up? 1 2 3 4 5 6
18. have you been anxious or worried? 1 2 3 4 5 6
APPENDIX E

DEMOGRAPHIC QUESTIONNAIRE
DEMOGRAPHIC QUESTIONNAIRE

1. DO YOU IDENTIFY AS A BLACK WOMAN?

2. AGE:

3. GENDER:

4. SOCIOECONOMIC STATUS:
   a. Poor
   b. Working class
   c. Middle class
   d. Upper middle class
   e. Wealthy

5. UNDERGRADUATE YEAR:
   a. First-year
   b. Sophomore
   c. Junior
   d. Senior

6. IF APPLICABLE, WHAT IS YOUR MAJOR/MINOR?

7. GPA:
REFERENCE LIST


VITA

Dr. Lincoln Hill was born and raised in Arlington, Texas. She received her B.A. in psychology from Boston University and her M.A. in clinical mental health counseling from Northwestern University. Dr. Hill enrolled in the Counseling Psychology PhD program at Loyola University Chicago in 2015. Throughout her years in the program, Dr. Hill served as a graduate research and teaching assistant within the School of Education and a graduate assistant for the Center for the Human Rights of Children. Dr. Hill completed a yearlong fellowship through the Chicago Schweitzer Fellowship program and was awarded a dissertation grant from the Fahs-Beck Fund for Research and Experimentation.

In March 2020, Dr. Hill defended her dissertation with distinction and was awarded Loyola’s Dissertation of the Year Award for professional schools. Currently, Dr. Hill is completing her doctoral internship at the University of Pennsylvania Counseling and Psychological Services. Dr. Hill plans to pursue a postdoctoral clinical position at the Chicago Counseling Collective following the completion of internship.