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Examining the Relationship Between Psychological Safety and Leadership Program Outcomes Through the Lens of Intersectionality

Ominia M. Hamad
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Walden University

College of Management and Human Potential

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Walden University
2024

Abstract

Examining the Relationship Between Psychological Safety and Leadership Program
Outcomes Through the Lens of Intersectionality

by

Ominia M. Hamad

MA, Cleveland State University, 2019

BS, Iowa State University, 2015

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Philosophy
Industrial and Organizational Psychology

Walden University

February 2024

Abstract

Black women face unique barriers due to their intersectional identities of being both Black and female that hinder them from building their leadership capacities. Leadership development is one way to support Black women into leadership; however, such initiatives were not built with intersectional identities and associated needs in mind. This study was grounded in intersectionality theory, which posits that the effects of intersectional identities cannot be separated because intersectional individuals live at the intersection of larger oppressive systems and may experience unique forms of oppression that are not captured through single-axis approaches. This nonexperimental quantitative study includes an examination of the relationship between perceptions of psychological safety and leadership development outcomes at the individual (e.g., increased self-confidence) and organizational (e.g., increased innovativeness) levels, and whether such a relationship differs based on an individual's intersectional identity, specifically race and gender. Findings showed that psychological safety had a significant positive relationship with both outcome levels. Findings also showed that gender and race as intersectional identities had an effect on the relationship between psychological safety and leadership program outcomes at the organizational level, but not on the individual level. The results of this study could be used by organizations to best develop Black women so they can finally fully participate, resulting in more diverse and inclusive leadership teams. Issues of gender and race have been solid forces for positive social change within organizations and this research contributes to social change by giving a voice to a group of people who have been traditionally marginalized.

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Dedication

To my beloved family, whose unwavering support and encouragement have been the cornerstone of my journey. Your love and guidance have been my source of strength, and I am profoundly grateful for the sacrifices you have made to see me succeed. To my cherished friends, your belief in me has been a constant source of inspiration. Your friendship and understanding have been a guiding light, and I am thankful for the countless moments of encouragement and joy we have shared. To my husband, your love, patience, and unwavering support have been my rock. Your belief in me has been a driving force, and I am grateful for the endless moments of understanding and encouragement. To all the Black girls and women who have paved the way with their resilience, strength, and Black girl magic. Your tenacity and grace have been a source of inspiration, and I am dedicated to continuing the journey you have bravely forged. To my God kids, nieces, and nephew, your presence in my life has been a constant reminder of the importance of perseverance and hope. You are my greatest joy, and I am grateful for the love and inspiration you bring. To every teacher and leader who has mentored and supported me, your guidance has been invaluable. Your belief in my potential has been a driving force, and I am thankful for the wisdom and encouragement you have shared. Finally, to my parents, your unwavering commitment to my education has been the greatest gift. Your sacrifices and love have been the foundation of my journey, and I am dedicated to honoring the legacy you have so selflessly built.

This work is a testament to the love, support, and inspiration each of you has provided. I am forever grateful for your presence in my life.

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Chapter 1: Introduction to the Study

Race and gender as social identities impact an individual's experience of privilege and oppression in the workplace (Burton et al., 2020; Harwood, 2020; Johnson, 2006; Kwok et al., 2021; Sanchez-Hucles & Davis, 2010). Women in the workplace experience gender discrimination, and Blacks face widespread formal and subtle forms of racial discrimination (Hebl et al., 2020). This study was grounded in intersectional theory, which suggests that the effects of race and gender cannot be separated because Black women live at the intersection of sexism and racism, and they may experience unique forms of oppression that are not captured through single-axis approaches (see Burton et al., 2020; Carter & Cisco, 2022; Coles & Paske, 2020; Rosette et al., 2018). Black women do not fit the prototypical traits of a leader; thus, they are dismissed and their likelihood of developing leadership capacities and attaining leadership roles is reduced, resulting in their underrepresentation of leadership roles (Beckwith et al., 2016; Day et al., 2021; Ely et al., 2012; Gipson et al., 2017; Hobbler et al., 2018; Rosette et al., 2016, 2018; Seo et al., 2017).

One way to propel Black women into leadership is through leadership development, which refers to preparing individuals and collectives to effectively engage in leading-following interactions (Amagoh, 2009; Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020; Rothelberg, 2007). The outcomes of leadership development have been found at the individual, organizational, and community levels (Amagoh, 2009; Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020; Rothelberg, 2007). Individual level outcomes refer to self-confidence, interpersonal

and organizational skills, community involvement, and creative thinking (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020). Organizational-level outcomes refer to business decision making, innovativeness, use of business resources, new leadership skills, and improved management skills that in turn can be used to increase organizational efficacy and ultimately benefit the organization (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020). Community-level outcomes refer to increased involvement and awareness of time as well as appreciation of cultural differences (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020).

Despite their popularity in research and practice, the effectiveness of leadership development programs differs for Black women because they were not built with intersectional identities and associated needs in mind (Beckwith et al., 2016; Kark, 2011; Lord et al., 2017; Rosette et al., 2018). For instance, previous researchers found that a hostile work environment and lack of representation can impact Black women's ability to develop their leadership capacity; as such, it was recommended that future research examine other factors that may affect those with intersectional identities (Carter & Cisco, 2022; Corrington et al., 2020; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018).

In this study, I examined whether the intersectional identities of race and gender impacted the relationship between psychological safety and leadership development program outcomes. Psychological safety is an interpersonal construct that has been repeatedly linked to adult learning and developmental outcomes, similar to those expected from leadership development programs (Edmondson, 1999; Edmondson & Lei,

2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020; Newman et al., 2017; Woodson, 2020). However, the research regarding the importance of psychological safety for intersectional identities is lacking (Newman et al., 2017).

By investigating the impact of race and gender as intersectional identities on the relationship between psychological safety and leadership program outcomes at the individual and organizational level, I closed the current gap in research and further highlighted the importance of intersectionality when it comes to leadership development. I highlighted the realities of Black women developing their leadership capacity and the importance of psychological safety as they do so and gave this marginalized group a voice since they continue to be muted and unnoticed.

In this chapter, I will review the background of the research topic, its purpose, and the posed research questions and hypotheses. Further, I will also cover the theoretical framework of intersectionality guiding this study, the nature of the study, and pertinent definition terms. Finally, the chapter will end with assumptions, scope and delimitations, limitations, the significance of the study, and a summary of the entire chapter. Please note that for the purposes of this study, the terms African American and Black were used interchangeably to describe individuals of African descent that belong to a racial group not categorized as White, European, or Asian.

Background of the Study

Intersectionality

The leadership research field has historically privileged White men and highlighted a race-neutral image of women leaders (Burton et al., 2021; Carter & Cisco,

2022; Coles & Paske, 2020; Corrington et al., 2020; Lanier et al., 2022; Rosette et al., 2018; Sims, 2022; Sims et al., 2022). Such depictions champion “White leaders as prototypical” (Rosette et al., 2018, p. 759) and give a false impression that leadership is a universal experience (Lanier et al., 2022; Rosette et al., 2018; Sims, 2022; Sims et al., 2022). However, according to intersectional theory, the effects of race and gender cannot be separated because Black women live at the intersection of sexism and racism, and they may experience unique forms of oppression that are not captured through single-axis approaches (Carter & Cisco, 2022; Coles & Paske, 2020; Corrington et al., 2020; Rosette et al., 2018).

Social identities such as gender and race influence all aspects of the leadership experience, especially development and its associated outcomes (Beckwith et al., 2016; Coles & Paske, 2020; Corrington et al., 2020; Dobbin et al., 2011; Gipson et al., 2017; Hopkins et al., 2008; Munusamy et al., 2010; Rosette et al., 2018). As such, focusing on intersectionality is vital when studying Black women since they are often marginalized in research and theory development (Corrington et al., 2020; Lanier et al., 2022; Sanchez-Hucles & Davis, 2010). Researchers called for additional studies that focus on intersectional identities in lieu of the one-way view on either race or gender because the influence of sexism and racism cannot be parceled out as discrete experiences (Carter & Cisco, 2022; Crenshaw, 1989; Collins, 1990; Lanier et al., 2022; Roberts et al., 2020; Rosette et al., 2018; Sanchez-Hucles & Davis, 2010; Showunmi, 2021; Sims, 2022; Sims et al., 2022).

Barriers of Race and Sex

Race and sex, as individual social identities, have unique impacts on an individual's experience. The workplace experiences of women are riddled with systematic gender bias and discrimination. In contrast, the workplace experiences of African Americans are riddled with systematic racial bias and discrimination. Women in the workplace still experience gender discrimination in the form of pay inequality, receiving less support from organizational leadership, and being treated and viewed as less competent than their male counterparts (Hebl et al., 2020; Rosette et al., 2018).

Similarly, Blacks or African Americans continue to face widespread formal and subtle forms of racial discrimination in the workplace that impact selection, promotion, interpersonal interactions, and underrepresentation in organizational research (Beckwith et al., 2016; Corrington et al., 2020; Hebl et al., 2020; Rosette et al., 2018). Despite the impact of intersectional identities on everyday experiences, there is a lack of studies focusing on intersectionality, which harms Black women and creates a fragmented view of their experiences (Carter & Cisco, 2022; Coles & Paske, 2020; Corrington et al., 2020; Rosette et al., 2018).

Barriers for Black Women

Being a Black woman is dubbed a double jeopardy because their gender and race lead them to be marginalized, overlooked, and considered nontypical, especially regarding leadership roles (Burton et al., 2020; Lanier et al., 2022; Livingston et al., 2012; Rosette et al., 2018). Further, Black women face barriers stemming from their intersectional identities, such as stereotypes, microaggressions, racism, discrimination,

exclusion/isolation, toxic workplace cultures, and lack of representation and development (Beckwith et al., 2016; Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017).

The realities of Black women are incomparable to Asian and White women. Black women are cast as dominant yet lack confidence, while the opposite holds true for Asian and White women (Hebl et al., 2021; Rosette et al., 2018). Warmth is an expectation for White women, while strength, assertiveness, aggression, and incompetence are the expectations for Black women; thus, Black women will avoid dominant behavior due to its association with negative leadership repercussions (Rosette et al., 2018). Such findings support that the consequences for Black women are unique due to barriers such as perceptions of counter-stereotypical behavior, which are disadvantageous and detrimental to leadership development (Beckwith et al., 2016; Corrington et al., 2020; Ely et al., 2012; Gipson et al., 2017; Hebl et al., 2021; Rosette et al., 2018).

As a result of their race and sex, Black women experience intersectional invisibility. According to recent findings, Black women are left unrecognized as women and less distinguishable from Black men due to the prototypes of Black and White racial groups that are constructed in gendered ways (Coles & Paske, 2020). Such unique barriers are not just dismissive of Black women; they reduce their likelihood of building leadership capacities and attaining leadership roles because Black women do not fit the prototypical traits of a leader (Ely et al., 2012; Gipson et al., 2017; Rosette et al., 2018). Consequently, Black women's underrepresentation in senior leadership roles remains a

common occurrence in countless organizations today (Beckwith et al., 2016; Day et al., 2021; Hoobler et al., 2018; Rosette et al., 2016, 2018; Seo et al., 2017).

Even when Black women finally get appointed to leadership roles, the promotion is highly dependent on the performance of the organization; when organizations are unsuccessful or having poor performance, these women are appointed into leadership roles not because they are considered good leaders, but because they can take the blame for the organizational failure (Carter & Cisco, 2022; Ryan et al., 2011). Without the factor of poor organizational performance, Black women are rendered incompetent or invisible and are less likely to get appointed into leadership roles (Carter & Cisco, 2022; Ryan et al., 2011).

Leadership Development and Black Women

Various solutions to increase diversity and propel Black women into leadership roles have been recognized by previous studies, with leadership development being the most popular and highly favored solution due to its effectiveness (Amagoh, 2009; Day, 2000; Day et al., 2021). Leadership development refers to preparing individuals and collectives to effectively engage in leading-following interactions (Amagoh, 2009; Day, 2000; Day et al., 2021; DeRue & Myers, 2014; Kjellstrom et al., 2014; Rothelberg, 2007). According to the theoretical model of leadership development proposed by Black and Earnest (2009):

Leadership programs begin with individuals motivated to learn. The individuals undergo learning activities that form social relationships. The individual experiences occur through observation, modeling, cognition, and environment.

The observed results are self-confidence, behavior change, motivation, action, influential relationships, and mutual purpose. These areas interact and lead to transformation within the individual, the organization, and the community. (p. 186).

The availability of leadership development programs has been dubbed a critical factor in assessing continued advancement within an organization because they can aid in building skillsets and behaviors that enable individuals to become effective leaders, allowing them to advance within the organization (Beckwith et al., 2016; Black & Earnest, 2009; Foster, 2021; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021). Examples of leadership development programs include training, feedback, assessments, coaching, mentoring, networking, job/stretch assignments, and action learning (Amagoh, 2009; Day, 2000; Day et al., 2021; Vogel et al., 2021).

Outcomes of Leadership Programs

The theoretical model of leadership posits that program outcomes occur at the individual, organizational, and community levels. The individual domain is where most of the direct benefits of the leadership development program will occur and where the most program-associated results might be expected (Black & Earnest, 2009; Grove et al., 2005; Kjellstrom et al., 2014). Individual level outcomes are focused on self-confidence, interpersonal and organizational skills, community involvement, and creative thinking (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020).

The organizational domain is where results occur within the organizations where the program participants work. Results can also occur in outside organizations where the

participants have contact (Black & Earnest, 2009; Grove et al., 2005; Kjellstrom et al., 2014). Organizational-level outcomes focused on business decision making, innovativeness, use of business resources, new leadership skills, improved management skills, and bringing new perspectives and ideas to the business (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020). These outcomes translate into organizational outcomes because they can benefit the organization in terms of profitability, maintaining a competitive edge, and ensuring long-term success (Black & Earnest, 2009). For instance, one's ability to bring new perspectives or ideas to the business can lead them to create new organizational strategies or directions that lead to positive evidential and evocative results for the organization (Black & Earnest, 2009).

Finally, the community domain refers to communities (i.e., social, or professional networks) to which the program participants' influences extend either directly or through their organizational work (Black & Earnest, 2009; Grove et al., 2005; Kjellstrom et al., 2014). Community-level outcomes focused on increased involvement and awareness of time as well as appreciation of cultural differences (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020). Similar to organizational outcomes, these outcomes translate into community outcomes because they can benefit the community in terms of cohesiveness, increasing civic awareness and consciousness (Black & Earnest, 2009). For instance, the skills gained through leadership program outcomes can be applied to various community involvements such as volunteering for local boards (Black & Earnest, 2009; Grove et al., 2005).

Leadership Development Programs and Black Women

Such findings prove that leadership programs are an effective solution for propelling individuals into leadership roles due to their ability to help individuals develop skills, knowledge, and experience to be an effective leader or hone current leadership skills (Dongen, 2014; Kark, 2011; Kjellstrom et al., 2014). Nonetheless, the effectiveness of leadership programs differs for Black women, and this is further highlighted by the fact that they are vastly underrepresented in leadership roles, which remains a common occurrence in various organizations (Beckwith et al., 2016; Day, 2000; Day et al., 2021; Hoobler et al., 2018; Kark, 2011; Lord et al., 2017; Rosette et al., 2016, 2018; Rothelberg, 2007; Seo et al., 2017; Van Velsor et al., 2010).

The effectiveness of leadership development for Black women differs as a direct result of other factors at play. Failing to provide leadership development programs that result from organizational policies that support not only qualified but also a diverse employee group has been said to impact the effectiveness of leadership programs for Black women (Beckwith et al., 2016). Hostile and uncivil work environments that allow for mistreatment, cultivate intersectional discrimination, stifle leadership development, and negatively impact one's sense of belonging have been found to impede Black women from developing their leadership capacity and attaining leadership roles (Carter & Cisco, 2022; Dobbin et al., 2011; Frazier et al., 2017; Kwon et al., 2020). Based on such findings, it is evident that perceptions of the work environment are vital to consider when it comes to Black women and leadership development. As such, researchers called for a deeper look into how other, less studied, factors can impact the outcomes of leadership

programs for individuals with intersectional identities, such as Black women (see Day et al., 2021; Dobbin et al., 2011; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018; Seo et al., 2017).

Psychological Safety

In this study, I focused on psychological safety, an interpersonal construct that has been repeatedly linked to adult learning and developmental outcomes at both the individual and group levels (see Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020; Newman et al., 2017; Woodson, 2020). Psychological safety is considered an interpersonal construct because it refers to an individual's perception or belief that they feel safe taking risks without negative repercussions to their career or self-image (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Newman et al., 2017). Thus, psychological safety reflects the relationship between the individual's perception and the work environment and serves as an antecedent for the individual's subsequent behavior in the workplace and organizational and individual outcomes (Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020; Newman et al., 2017).

Outcomes of Psychological Safety

According to Newman et al. (2017), psychological safety is multilevel construct, but it is more potent at the group or team level as it serves as a source of a supportive and healthy environment that results in improved innovation and creativity (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020). At the individual level, psychological safety means that individuals to

feel safe, fearless, encouraged to recognize their capabilities and unique skillsets, and are not afraid to experiment or make mistakes due to the negative repercussions to their careers (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020). At the organizational level, psychological safety has been positively linked to organizational performance in terms of meeting organizational goals and successfully implementing organizational change (Baer & Frese, 2003; Cataldo et al., 2009).

Psychological safety, then, activates reflection, cognitions, and unique thinking abilities for individuals and within groups that lead to positive outcomes such as improved performance and expansion of knowledge and skills (Higgins et al., 2022; Kwon et al., 2020). As for moderators of psychological safety, previous studies have examined in-role behaviors and found that a high level of confidence reduced the strength of the relationship between psychological safety and knowledge sharing (Siemsen et al., 2009). Other studies reported that supportive leadership behaviors moderated the relationship between psychological safety and work-related outcomes such as job performance and engagement (Carmeli et al., 2010; Frazier et al., 2017; May et al., 2004).

Based on the copious research on the topic, it is clear that psychological safety is vital for development at various levels of analysis such as individuals, groups, and organizations. Despite this, there is a gap in research regarding the importance of psychological safety for Black women's leadership development (Day et al., 2021; Edmondson & Lei, 2014; Frazier et al., 2017; Hoobler et al., 2018). Further, there is a

gap in the research regarding how gender and race intersect to influence the relationship between psychological safety and outcomes of leadership programs (Day et al., 2021; DeRue & Myers, 2014; Edmondson & Lei, 2014; Flores et al., 2021; Frazier et al., 2018; Hoobler et al., 2018).

As previously mentioned, psychological safety is vital for leadership development because it drives learning and performance outcomes (Frazier et al., 2017; Higgins et al., 2022; Kwon et al., 2020; Newman et al., 2017; Woodson, 2020), but it may be even more critical for Black women due to the unique challenges and experiences they face. Black women often experience intersectional discrimination, meaning that they face discrimination and biases based on both their race and gender (Bauer et al., 2021; Carter & Cisco, 2022; Coles & Paske, 2020; Davis & Maldonado, 2015; Rosette et al., 2018). In many cases, these biases can create hostile, unsupportive, and discriminatory work environments, making it more difficult for Black women to speak up, share their ideas, and take on leadership roles (Carter & Cisco, 2022; Dobbin et al., 2011; Frazier et al., 2017; Kwon et al., 2020). This can lead to feelings of isolation and self-doubt and can ultimately hinder their career advancement and development (Carter & Cisco, 2022; Frazier et al., 2017; Kwon et al., 2020; Lanier et al., 2022; Rosette et al., 2016, 2018).

Psychological safety could mean that Black women overcome these barriers and feel more comfortable sharing perspectives, taking on leadership roles, and advancing in their careers (Edmondson & Lei, 2014; Flores et al., 2021; Frazier et al., 2017; Hu-Chan, 2020; Kahn, 1990; Newman et al., 2017). This can not only benefit Black women, but also lead to more diverse and inclusive leadership teams, which are associated with

improved organizational performance and innovation (Higgins et al., 2022; Kwon et al., 2020).

Because the workplace experiences of Black women include experiences of sexual racism, psychological safety is vital for them in order to feel safe taking risks without repercussions to their careers. By investigating psychological safety, I increased the understanding of its impact on Black women's ability to develop their leadership capacity due to program participation.

Problem Statement

Historically, the climb up the career ladder has been challenging for women, yet, for Black women, that climb is not only challenging, but it is also unique (Beckwith et al., 2016; Catalyst, 2017; Oven & Schoenecker, 2019; Equal Employment Opportunity Commission, 2016; Hebl et al., 2020; Rosette et al., 2018; U.S. Census Bureau, 2018). Between the entry-level and the C-suite, African American women's representation in senior leadership for various industries dropped from 19% in 2015 to 5% in 2022 (Lean In, 2022; Rosette et al., 2018; Seo et al., 2017). Only one in four C-suite leaders is a woman, and only one in 20 is a woman of color (Lean In, 2022). This is counter to the statistics that show Black women to be more educated and better qualified than ever before and harbor greater aspirations for becoming top executives than their White counterparts (Beckwith et al., 2016; Lean In, 2021, 2022; Rosette et al., 2018).

Despite Black women having greater leadership aspirations, intersectional barriers play a significant role in their underrepresentation (Beckwith et al., 2016; Carter & Cisco, 2022; Day, 2000; Day et al., 2021; Hebl et al., 2020; Hoobler et al., 2018; Kark, 2011;

Lanier et al., 2022; Livingston et al., 2012; Rosette et al., 2018; Seo et al., 2017).

Previous researchers have identified factors such as perceptions of hostile and uncivil work environments as impacting Black women from developing their leadership capacity (see Amagoh, 2009; Beckwith et al., 2016; Carter & Cisco, 2022; Day, 2000; Day et al., 2021; Rothelberg, 2007). The presence of systemic and institutional biases can create challenging work environments for Black women. These biases can manifest in many ways, including microaggressions, discrimination, or lack of representation. Such findings support that for this marginalized group, perceptions of the work environment are vital to their leadership development. As such, researchers called for additional studies investigating how other factors can impact the outcomes of leadership development programs for individuals with intersectional identities (Day et al., 2021; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018; Seo et al., 2017).

Psychological safety is an interpersonal construct that has been shown to predict individual and organizational learning and performance outcomes, such as those from leadership development programs (Day et al., 2021; Kwon et al., 2020; Newman et al., 2017). However, due to the lack of focus on intersectional identities, the current understanding of how intersectionality influences Black women's perceptions of psychological safety that then impacts outcomes of leadership programs is virtually nonexistent (Carter & Cisco, 2022; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Hu-Chan, 2020; Lanier et al., 2022; Newman et al., 2017; Rosette et al., 2016, 2018; Seo et al., 2017).

By disentangling the role of intersectionality on Black women's perceptions of psychological safety and leadership program outcomes, a deeper understanding can be gained of how intersectionality morphs the experiences and realities of this marginalized group. Such results can help inform organizations of how intersectional identities such as gender and race can influence individual experiences, allowing them to be better prepared when developing Black women and supporting their leadership journey (Beckwith et al., 2016; Carter & Cisco, 2022; Day et al., 2021; Kwon et al., 2020; Lanier et al., 2022; Seo et al., 2017; Sims, 2022; Sims et al., 2022).

Purpose of the Study

This quantitative study examined the relationship between perceptions of psychological safety and leadership development outcomes at the individual and organizational levels and whether such a relationship differed based on an individual's intersectional identity, specifically race and gender. The participants for this study included both females and males; however, this study specifically focused on Black women. In detail, chapter three will outline specific information regarding sample demographics, controls, and anticipated analyses.

Psychological safety was the independent or predictor variable, leadership program outcomes at the individual level and leadership program outcomes at the organizational level were the dependent or outcome variables, and the moderator variables were race and sex. To ensure that gender and race are the only intersectional identities impacting findings, I controlled for other intersectional identities that were identified through the participant demographics that were collected.

This quantitative study answered the numerous calls made by researchers regarding using mixed-methods or quantitative studies to examine intersectionality to expand the understanding and close the current gap in the research (Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017). Thus, by utilizing a quantitative method approach with significant enhancements (i.e., the use of qualitative techniques to maximize the interpretation of the quantitative data), additional insights from respondents were gained and allowed for a deeper understanding of how intersectionality morphed the experiences and realities of this marginalized group (Leech & Onwuegbuzie, 2007).

Research Questions and Hypotheses

The research question that was addressed through this study is, does the impact of psychological safety on leadership program outcomes depend on an individual's intersectional identity, specifically race and gender? Specifically, the first research question this study aimed to answer is:

RQ_1: What is the relationship between psychological safety and leadership program outcomes at the individual and organizational levels?

H1_{a1}: Psychological safety will be positively related to leadership program outcomes at the individual level.

H1₀₁: Psychological safety will be negatively related to leadership program outcomes at the individual level.

H2_{a2}: Psychological safety will be positively related to leadership program outcomes at the organizational level.

H2₀₂: Psychological safety will be negatively related to leadership program outcomes at the organizational level.

The second research question this study aimed to answer is how gender and race as intersectional identities moderate the relationship between psychological safety, leadership program outcomes at the individual level, and leadership program outcomes at the organizational level?

RQ_2: How does an individual's intersectional identity moderate the relationship between psychological safety and leadership program outcomes at the individual and organizational levels?

H3_{a3}: Race and gender, as intersectional identities, will moderate the relationship between psychological safety and leadership program outcomes such that: The relationship between psychological safety and leadership program outcomes at the individual level will have stronger effects when the gender is female, and the race is Black. The relationship between psychological safety and leadership program outcomes at the organizational level will have stronger effects when the gender is female, and the race is Black.

H3₀₃: Race and gender, as intersectional identities, will moderate the relationship between psychological safety and leadership program outcomes such that: The relationship between psychological safety and leadership program outcomes at the individual level will have weaker effects when the gender is female, and the race is Black. The relationship between psychological safety and leadership program outcomes

at the organizational level will have weaker effects when the gender is female, and the race is Black.

Theoretical Framework

Intersectional theory, or intersectionality, suggests that social identities or positions are not independent; instead, they intersect or overlap to shape individual experiences (Bauer et al., 2021; Coles & Paske, 2020; Collins, 1990; Crenshaw, 1989, 1991; Rosette et al., 2018). Intersectionality was first published by Crenshaw (1989), a legal scholar within the Black feminist theory. Although Crenshaw (1989) introduced intersectionality to elucidate the situation of African American or Black women in the U.S., it can extend to various intersections of social identities such as gender, race, ethnicity, and class (Bauer et al., 2021; Collins 1990; Crenshaw, 1989, 1991; Rosette et al., 2018). In other words, intersectionality posits that the effects of intersectional identities cannot be separated because intersectional individuals live at the intersection of larger oppressive systems; thus, they may experience unique forms of oppression that are not captured through single-axis approaches (Carter & Cisco, 2022; Coles & Paske, 2020; Rosette et al., 2018).

For Black women in the workplace, intersectional experiences are influenced by larger systems of oppression, such as sexism, racism, intersectional invisibility, discrimination, and stereotypes (Bauer et al., 2021; Carter & Cisco, 2022; Coles & Paske, 2020; Collins, 2015; Gipson et al., 2017; Rosette et al., 2018). The larger oppressive systems that Black women consistently face lead them to feel isolated, excluded, underdeveloped, and cast as invisible (Beckwith et al., 2016; Carter & Cisco, 2022;

Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017). Black women are not expected to be warm like White women or be highly confident like Asian women; instead, they are expected to be strong, assertive, aggressive, incompetent, and diffident (Hebl et al., 2021; Rosette et al., 2018). If Black women act accordingly to such expectations, they risk the repercussions of negative stereotypes such as Angry Black Woman; in contrast, if they do not follow such expectations, they are cast as inept, and their expertise is scrutinized and questioned (Hebl et al., 2021; Lanier et al., 2022; Rosette et al., 2018).

Such barriers stifle leadership development and impact Black Women's sense of belonging and ability to develop leadership capacities (Carter & Cisco, 2022; Frazier et al., 2017; Kwon et al., 2020; Lanier et al., 2022). As such, the intersectional frame of race and gender is critical to Black women's role within organizations. It is also essential for their potential to get respected, noticed, developed, and promoted to leadership positions because, for them, the influences of sexism and racism cannot be parceled out as discrete experiences (Bauer et al., 2021; Carter & Cisco, 2022; Crenshaw, 1989; Collins, 2009; Davis & Maldonado, 2015; Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017).

Collins (2015) further highlights the importance of focusing on intersectionality because it provides "critical insight" (p. 2) that race, gender, ethnicity, and other identities "operate not as unitary, mutually exclusive entities, but as reciprocally constructing phenomena that in turn shape complex social inequalities" (p. 2). Since one's skin color and gender interact to affect experiences and contribute to unequal outcomes in ways that cannot be attributed to just one dimension, intersectionality is essential to consider anytime the research is focused on the experiences and realities of

Black women because research that omits intersectionality cannot sufficiently address how Black women are subjugated and underrepresented in leadership roles (Carter & Cisco, 2022; Crenshaw, 1989; Davis & Maldonado, 2015; Lanier et al., 2022; Rosette et al., 2018).

Regarding psychological safety and leadership program outcomes, intersectionality offers a different context that has not been extensively investigated. As previously mentioned, when it comes to Black women and leadership, intersectionality provides a lens through which we can better understand this marginalized group's experiences, realities, and organizational outcomes. This is imperative for Black women developing their leadership capacities because they face unique intersectional barriers such as stereotypes, intersectional invisibility, and gendered racism that hinder their development (Bauer et al., 2021; Carter & Cisco, 2022; Coles & Paske, 2020; Davis & Maldonado, 2015; Rosette et al., 2018).

Leadership development programs aid in building skillsets and behaviors that enable individuals to become effective leaders (Beckwith et al., 2016; Black & Earnest, 2009; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021). However, such skills require a great deal of interpersonal risk, and such risk is much higher for Black women due to the stereotypes tied to their intersectional identities (i.e., Angry Black Woman, Incompetence) (Edmondson, 1999; Kahn, 1990; Kwon et al., 2020; Rosette et al., 2016, 2018). As a response, Black women do not feel safe taking risks due to the fear of negative repercussions and are ultimately held back from developing their leadership capacity and attaining senior leadership positions (Hu-Chan, 2020; Rosette et al., 2016,

2018; Seo et al., 2017). Psychological safety is vital for leadership development because it drives learning and performance outcomes and it is even more vital for Black women due to the increased risk resulting from their intersectional identities (Day et al., 2021; Frazier et al., 2017; Kwon et al., 2020; Newman et al., 2017).

In addition to psychological safety being a vital factor in learning and performance outcomes at both the individual and organizational level, such as those from leadership development programs, it is also essential for marginalized groups in the workplace (Day et al., 2021; Edmondson & Lei, 2014; Frazier et al., 2017; Hu-Chan, 2020; Kwon et al., 2020; Newman et al., 2017). The presence of psychological safety could allow Black women to feel safe taking risks and be their authentic selves without fear of negative consequences to self-image, career, or status (Edmondson & Lei, 2014; Flores et al., 2021; Frazier et al., 2017; Hu-Chan, 2020; Kahn, 1990; Newman et al., 2017). In return, Black women can effectively and freely develop their leadership capacity as they participate in leadership development programs and finally attain a seat at the table.

Despite the impact that intersectional identities have on everyday experiences, there are a lack of studies focusing on intersectionality, which harms Black women and creates a fragmented view of their experiences (Carter & Cisco, 2022; Coles & Paske, 2020; Lanier et al., 2022; Rosette et al., 2016, 2018; Seo et al., 2017). Moreover, because of the lack of research focused on intersectional identities, the current understanding of how intersectionality influences perceptions of psychological safety that, in turn,

negatively impacts outcomes of leadership programs is virtually nonexistent (Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2016, 2018; Seo et al., 2017).

By disentangling the role of intersectionality on Black women's perceptions of psychological safety and outcomes of leadership programs in this study, a deeper understanding of how intersectionality morphs the experiences and realities of this marginalized group can be gained. Such results help inform organizations on how to best develop Black women and support their leadership journey (Beckwith et al., 2016; Carter & Cisco, 2022; Day et al., 2021; Lanier et al., 2022; Seo et al., 2017). Moreover, such results help increase the understanding of intersectionality and how social identities intersect or overlap to shape individual experiences and social inequities (Carter & Cisco, 2022; Collins, 2015; Day et al., 2021; Rosette et al., 2018).

Nature of the Study

Currently, the most significant gap in the literature regarding Black women and leadership is the multiple calls for future research to utilize quantitative or mixed methods approaches as there is an overemphasis on qualitative studies on the topic (Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017). To answer these numerous calls, this study utilized a quantitative approach with significant enhancements, which involved using qualitative techniques to maximize the interpretation of the quantitative data (Leech & Onwuegbuzie, 2007). Thus, the design did not just measure Black women's perceptions of psychological safety and its impact on leadership development outcomes. It also included additional qualitative insights from respondents to deepen understanding (Black & Earnest, 2009). This method complies

with the recommendation of triangulating data that was given by the author of the Leadership Program Outcomes Measure (Black & Earnest, 2009).

To address the research questions in this quantitative method study, the specific research design included a multivariate general linear model (MGLM), specifically multiple linear regression with interaction (Hahs-Vaughn, 2017). This approach was chosen because I was interested in testing the relationship between one continuous predictor and multiple continuous outcome variables. Psychological safety was the continuous predictor, and the multiple continuous DVs were leadership program outcomes at the individual level and leadership program outcomes at the organizational level. Further, I was interested in the additive or combined effects of race and gender on said relationship.

As for controlling for covariates, Bauer et al. (2021) recommended that future research on quantitative intersectional studies be explicit and provide a clear rationale for any possible covariates and the role they play. Following such a recommendation, I utilized descriptive statistics such as tenure in current role and overall organizational tenure, socioeconomic status (SES), education level, job level, sexual orientation, and age in a preliminary analysis to identify and control for any significant covariates that could have impacted findings.

This design allowed me to assess if race and gender are operating independently of each other (i.e., no interaction exists) or whether the two factors operate together to produce an additive effect on the relationship between psychological safety, leadership program outcomes at the individual level, and leadership program outcomes at the

organizational level (i.e., an interaction exists). This approach allowed me to analyze how being a female and being Black impacted the relationship between psychological safety, leadership program outcomes at the individual level, and leadership program outcomes at the organizational level, resulting in a different experience and reality. Further, the approach aligned with intersectional theory, which posits that social identities are not independent; instead, they intersect or overlap to shape individual experiences (Rosette et al., 2018). This approach aligned with the majority of quantitative approaches to intersectional research, as the most common and recommended methods were those applying regression in ways that allow for heterogeneity across intersections, such as regression with interaction effects (Bauer et al., 2021; Else-Quest & Hyde, 2016; Warner, 2008).

Definitions

African American or Black: Referring to an individual of African descent belonging to a racial group not categorized as White, European, or Asian.

Woman or female: Refers to an individual's biological sex.

Intersectionality: The manner in which various aspects of identity combine in different ways to construct a social reality, which includes race and gender (Sanchez-Hucles & Davis, 2010).

Leadership development: the process of preparing individuals and collectives to effectively engage in leading-following interactions (Day et al., 2021; DeRue & Myers, 2014).

Leadership programs: Refers to different approaches that prepare an individual for advancement within an organization and to the continuous learning of those who already occupy these positions (Rotheberg, 2007).

Psychological safety: Refers to an organizational resource that allows individuals to believe or perceive that they are safe taking risks without negative repercussions to their career or self-image (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Newman et al., 2017).

Assumptions

The first assumption was that participants were honest regarding their perceptions of psychological safety and how it has impacted their leadership developmental outcomes. The second assumption was that the recruited participants provided detailed information regarding their leadership program outcomes at both the individual and organizational levels. The third assumption was that the recruited participants were honest regarding their recent involvement with leadership development programs. The fourth and final assumption was that the quality of participant responses would be high due to the compensation offered.

Scope and Delimitations

The first delimitation was that participants in the sample would include females and males that are either Black or White. The analysis was focused on comparing the experiences of Black women to others in the sample. Thus, the focus of the analysis could have been a significant delimitation because the sample did not include other ethnicities such as Asian for instance. In other words, although the analysis outlined how

Black women differ from the rest of the sample, which included White women, White men, and Black men, it was still limited in terms of including other ethnicities and comparing them to Black women.

The second delimitation was the focus on specific intersectional identities. Although intersectionality refers to a mix of social identities, this study focused only on race and sex. In fact, I controlled for other intersectional identities. The third delimitation focused on participants who have already completed a leadership program initiated and rolled out by their employing organizations within the past five years. Thus, participants who have undergone leadership programs before the past five years, are currently undergoing a leadership program, or went through a leadership program not initiated and rolled out by their employing organization were excluded from the study. This inclusion criteria allowed for more robust responses as participants were able to detail and reflect on the outcomes gained from their leadership program.

Limitations

A significant limitation of this study was the focus on gender and race as intersectional identities. Various intersectional identities could have been explored in addition to gender and race, such as sexual orientation, class, and age. Such intersectional identities can intersect or overlap to shape individual experiences (Rosette et al., 2018). As such, the generalizability of findings was limited due to the exclusion of other pertinent intersectional identities. However, since this study focused on the relationship between psychological safety and leadership program outcomes, and whether such a

relationship was dependent on gender and race as intersectional identities, this limitation became a valid necessity.

This study controlled for various variables that could have impacted findings. Bauer et al. (2021) recommend that future research on quantitative intersectional studies be explicit and provide a clear rationale for any possible covariates and their role. Following such a recommendation, I utilized descriptive statistics such as tenure in the current position, organizational tenure, SES, education level, job level, age, and sexual orientation and ran a preliminary analysis to identify and control for any significant covariates that could have impacted findings. By controlling for specific covariates, this limitation was addressed.

Finally, the type of sample chosen for this study may be viewed as a limitation as it is only focused on Black women in comparison to White men and women and Black men. One may argue that the study lacks generalizability to the general population. However, this study aimed not to examine how Black women differed from other marginalized groups such as Hispanics and Asians. Instead, this study was solely focused on Black women because the current literature has rendered them invisible, and it is vital that future studies start to highlight the plights of this marginalized group.

Significance of the Study

This study is unique and significant in many ways. This study addressed various gaps in the current literature regarding intersectionality, leadership development, and psychological safety. Moreover, this study aimed to increase the understanding of the unique barriers that impede certain marginalized groups from developing their leadership

capacities and attaining leadership roles. The additional significance of this study lied in its ability to identify organizational barriers that have yet to be explored explicitly for Black women attempting to build their leadership capacities.

As such, this study highlighted the importance of recognizing how intersectional identities can overlap to influence workplace outcomes. Such findings can help organizations develop leadership development programs with marginalized groups in mind and help identify other organizational-related barriers that contradict leadership program goals and negatively impact the outcomes of such initiatives (Flores et al., 2021). Further, the theoretical significance of this study lied in its potential to make an original research contribution to the concept of intersectionality as it related to Black women and leadership (Collins, 2015; Day et al., 2021; Kwon et al., 2020; Rocco et al., 2014; Rosette et al., 2018; Seo et al., 2017; Sims, 2022; Sims et al., 2022). When space is made to hear the unique voices of people of color, “hope for dialog and improved racial relations is created” (Rocco et al., 2014, p. 5).

Within organizations, gender and race issues have long been solid forces for social change (Cortina et al., 2011; Eagly & Chin, 2010; Hebl et al., 2020; Rosette et al., 2018). This research contributes to social change by providing real-life, real-world perceptions of Black women developing leadership capacities and helped give voice to a group of people who have always been muted and gone unnoticed (Eagly & Chin, 2010). Concerning Black women and leadership, this research was a catalyst for social change within organizations and has the potential to bring about organizational change that will

create more positive perceptions and descriptions for this marginalized group and can help organizations become allies of Black women in the corporate business.

Finally, this study's contribution to social change aligned with Walden University's mission of providing professionals the opportunity to transform as scholar-practitioners to effect positive social change (Walden University, 2016). Further, Walden University (2016) envisions its graduates applying their degree to solutions of critical societal changes to advance the greater global good, which was the goal of this study. The research will not only highlight the realities of Black women when it comes to developing their leadership capacity, but it helped give them a voice since they have always been muted and gone unnoticed (Eagly & Chin, 2010). Thus, the contributions of this study provided positive social change that can advance the greater global good.

Summary

Although Black women have come a long way in regard to their roles in organizations, they continue to experience unique barriers due to their intersectional identities. Such barriers not only impact the workplace experiences of Black women, but they also impact their ability to develop leadership capacities and attain leadership roles. However, because previous research has highlighted a race-neutral image of women leaders or solely focused on a one-way view on either race or gender, Black women are marginalized in research and theory development, and their realities and experiences are not fully understood (Carter & Cisco. 2022; Crenshaw, 1989; Collins, 1990; Lanier et al., 2022; Roberts et al., 2020; Rosette et al., 2018; Sanchez-Hucles & Davis, 2010; Showunmi, 2021; Sims, 2022; Sims et al., 2022). The lack of intersectional focus is

problematic because research that omits intersectionality cannot sufficiently address how Black women are subjugated and underrepresented in leadership roles (Carter & Cisco, 2022; Crenshaw, 1989; Davis & Maldonado, 2015; Lanier et al., 2022; Rosette et al., 2018).

In regard to psychological safety and leadership program outcomes, intersectionality offers a different context that has not been extensively investigated. Due to the lack of focus on intersectional identities, the current understanding of how intersectionality influences perceptions of psychological safety that, in turn, negatively impacts outcomes of leadership programs is virtually nonexistent (Carter & Cisco, 2022; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Lanier et al., 2022; Newman et al., 2017; Rosette et al., 2016, 2018; Seo et al., 2017). Thus, by disentangling the role of intersectionality on Black women's perceptions of psychological safety and outcomes of leadership programs, a deeper understanding of how intersectionality morphed the experiences and realities of this marginalized group was gained.

The results from this study helped increase the understanding of intersectionality and how social identities intersect or overlap to shape individual experiences and shape social inequities (Collins, 2015; Rosette et al., 2018). Further, the findings help inform organizations on how to best develop Black women and support their leadership journey (Beckwith et al., 2016; Carter & Cisco, 2022; Day et al., 2021; Lanier et al., 2022; Seo et al., 2017). The benefits can also extend beyond Black women because it can result in more diverse and inclusive leadership teams, which are associated with improved organizational performance and innovation (Higgins et al., 2022; Kwon et al., 2020). The

following chapter will provide an extensive and in-depth review of the current literature on the intersectionality of race and gender, leadership development, and psychological safety.

Chapter 2: Literature Review

Currently, Black women are vastly underrepresented in leadership roles (Rosette et al., 2018; Seo et al., 2017). This is counter to the statistics that show them to be more educated and better qualified than ever before to enter the workforce and harbor greater aspirations for becoming top executives than their White counterparts (Beckwith et al., 2016; Rosette et al., 2018). Despite Black women having greater leadership aspirations, intersectional barriers play a significant role in their underrepresentation of leadership roles (Beckwith et al., 2016; Carter & Cisco, 2022; Day, 2000; Day et al., 2021; Hebl et al., 2020; Hoobler et al., 2018; McGregor, 2015; Petsko & Rosette, 2023; Seo et al., 2017). As such, researchers called for additional studies investigating how other, less studied, factors can impact the outcomes of leadership development programs for individuals with intersectional identities (Day et al., 2021; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018; Seo et al., 2017).

Psychological safety is an interpersonal construct that has been shown to predict individual and organizational learning and performance outcomes, such as those from leadership development programs (Day et al., 2021; Kwon et al., 2020; Newman et al., 2017). However, due to the lack of focus on Black women, the current understanding of how intersectionality influences their perceptions of psychological safety that, in turn, impacts outcomes of leadership programs is virtually nonexistent (Carter & Cisco, 2022; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Hu-Chan, 2020; Lanier et al., 2022; Newman et al., 2017; Rosette et al., 2016, 2018; Seo et al., 2017).

In this quantitative study, I examined the relationship between perceptions of psychological safety and leadership development outcomes at the individual and

organizational levels and whether such a relationship differed based on an individual's intersectional identity, specifically race and gender. I focused on race and gender as intersectional identities to address the gap in the psychological safety literature since its importance for Black women was not fully understood. Therefore, by disentangling the role of intersectionality on Black women's perceptions of psychological safety and leadership program outcomes, a deeper understanding was gained of how intersectionality morphs the experiences and realities of this marginalized group. Such results can be used to inform organizations of how intersectional identities such as gender and race can influence individual experiences, resulting in better preparation when developing Black women and supporting their leadership journey (Beckwith et al., 2016; Carter & Cisco, 2022; Day et al., 2021; Kwon et al., 2020; Lanier et al., 2022; Seo et al., 2017; Sims, 2022; Sims et al., 2022).

Library Search Strategy

To conduct a comprehensive literature review, I used various management, psychology, social sciences, and business databases. The specific databases included ABI/INFORM Complete, Academic SEARCH Complete/Premiere, Annual reviews, APA PsycArticles, APA PsychInfo, Business Source Complete, CQ Researcher, Emerald Insights, Gale Academic OneFile Select, Gale in Context Opposing Views, SAGE Journals, SAGE Knowledge, ScienceDirect, SocINDEX, and Taylor & Francis Online. I also used Google Scholar, ProQuest Dissertation and Theses Global, and ScholarWorks. The keywords that I used for the search strategy included *leadership development*, *leader development*, *leadership training*, *leader training* OR *leadership development program outcome*, *leader development program outcomes*, *leadership training program outcomes*,

leader training program outcomes, AND psychologically safe work climate, psychological safety in the workplace, AND women or females in the workplace, OR women of color, females of color in the workplace, minority women, African American women, African American females, Black women, Black females in the workplace, AND intersectionality, and intersectionality of race and gender.

Theoretical Framework

Intersectional theory or intersectionality was developed within the Black feminist theory and first introduced by Crenshaw, a legal scholar, in 1989 to elucidate the situation of Black women in the United States (Crenshaw, 1989). Although intersectionality was introduced to elucidate the situation of Black women in the United States, it can extend to various intersections of social identities such as gender, race, ethnicity, and class (Bauer et al., 2021; Collins, 1990; Crenshaw, 1989, 1991; Rosette et al., 2018).

Intersectionality is used to address social identities that are often treated as marginal or invisible and to highlight the “complex nature of power” (Harris & Leonardo, 2018, p. 5). Intersectionality is also used to note the “gap between social categorization and the complexity of intersubjective experience” (Harris & Leonardo, 2018, p. 5) as there is not one social label that can be used to explain the complexity of an individual’s unique experience (Harris & Leonardo, 2018). Intersectionality posits that the effects of intersectional identities cannot be separated because intersectional individuals live at the intersection of larger oppressive systems, and as a result, they may experience unique forms of oppression that are not captured through single-axis approaches (Bauer et al., 2021; Carter & Cisco, 2022; Collins 1990; Crenshaw, 1989, 1991; Harris & Leonardo, 2018).

In the workplace, women experience gender discrimination, and Blacks face widespread formal and subtle forms of racial discrimination (Hebl et al., 2020). In contrast, the intersectional experiences of Black women are influenced by larger oppressive systems because such experiences are not established within separate identities, such as just race or just gender (Harris & Leonardo, 2018; Rosette et al., 2018; Stanley, 2009). Black women face a double jeopardy because they are female and belong to a racial minority group, both of which subjects them to unique barriers (Crenshaw, 1989; Collins, 2009; Davis, 2016; Davis & Maldonado, 2015; Rosette et al., 2018). Black women face sexism, racism, intersectional invisibility, discrimination, and stereotypes (Bauer et al., 2021; Carter & Cisco, 2022; Coles & Pasek, 2020; Collins, 2015; Gipson et al., 2017; Rosette et al., 2016, 2018).

Black women are not expected to be warm like White women or be highly confident like Asian women; instead, they are expected to be strong, assertive, aggressive, incompetent, and diffident (Hebl et al., 2021; Rosette et al., 2018). If Black women act according to such expectations, they risk the repercussions of negative stereotypes such as Angry Black Woman, so they will avoid such behavior due to its association with negative leadership repercussions (Hebl et al., 2021; Lanier et al., 2022; Rosette et al., 2018). In contrast, if Black women do not follow expectations of strength, assertiveness, and aggressiveness, they are cast as inept, and their expertise is scrutinized and questioned (Hebl et al., 2021; Foster, 2021; Lanier et al., 2022; Rosette et al., 2018).

Compared to White women, Black women are not as accepted by White men (Coles & Pasek, 2020). Black women feel socially invisible to their peers because they are too different from White women to benefit from their shared gendered status and too

different from Black men to benefit from their shared race (Coles & Pasek, 2020; Hebl et al., 2021; Rosette et al., 2018). Black women are often grouped together in lower-level/status roles instead of roles that can get them promoted (Rosette et al., 2018; Sanchez-Hucles & Davis, 2010). As a result, Black women miss out on the experience and training they need to advance in their careers (Hebl et al., 2021; Rosette et al., 2018; Sanchez-Hucles & Davis, 2010). Thus, it is not a lack of ambition that holds Black women back; it is the lack of opportunities and chance (Hebl et al., 2021; Lanier et al., 2022; McGregor, 2015; Rosette et al., 2018; Sanchez-Hucles & Davis, 2010).

Generally, women are ambitious about wanting to excel in their careers, make money and work in jobs that let them empower others and serve a broader mission; but are less likely than men to pursue high-ranking jobs in their organization (McGregor, 2015). In contrast, Black women have higher aspirations than White women to attain a powerful position with a prestigious title, have higher confidence in succeeding in powerful positions, and are more likely to say high earnings were important to their careers (Beckwith et al., 2016; Carter & Cisco, 2022; Day, 2000; Day et al., 2021; Hebl et al., 2020; Hoobler et al., 2018; McGregor, 2015; Seo et al., 2017). Based on such findings, it is clear that despite the various hurdles Black women face, they are still determined to seek top leadership roles.

These findings support that the consequences for Black women are unique due to barriers such as perceptions of counter-stereotypical behavior and negative stereotypical expectations (Beckwith et al., 2016; Corrington et al., 2020; Ely et al., 2012; Gipson et al., 2017; Hebl et al., 2021; Rosette et al., 2018). Such oppressive systems have resulted in Black women feeling excluded, underdeveloped, and cast as invisible (Beckwith et al.,

2016; Carter & Cisco, 2022; Lanier et al., 2022; Seo et al., 2017). Moreover, the barriers that Black women face impact their sense of belonging and stifle their ability to develop leadership capacities (Carter & Cisco, 2022; Frazier et al., 2017; Kwon et al., 2020; Lanier et al., 2022).

Intersectionality is essential in research focused on the experiences and realities of Black women. Researchers who omit intersectionality cannot sufficiently address how Black women are subjugated and underrepresented in leadership roles (Carter & Cisco, 2022; Crenshaw, 1989; Davis & Maldonado, 2015; Lanier et al., 2022; Rosette et al., 2018).

In regard to psychological safety and leadership program outcomes, intersectionality offers a different context that has not been extensively investigated. As previously mentioned, when it comes to Black women and leadership development, intersectionality is a lens through which this marginalized group's experiences, realities, and organizational outcomes can be understood. This is imperative for Black women developing their leadership capacities because they face unique intersectional barriers such as stereotypes, intersectional invisibility, and gendered racism that hinder their development (Bauer et al., 2021; Carter & Cisco, 2022; Coles & Pasek, 2020; Davis & Maldonado, 2015; Rosette et al., 2018).

Leadership development programs aid in building skillsets and behaviors that enable individuals to become effective leaders (Beckwith et al., 2016; Black & Earnest, 2009; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021). According to the theoretical model of leadership development proposed by Black and Earnest (2009):

Leadership programs begin with individuals motivated to learn. The individuals undergo learning activities that form social relationships. The individual experiences occur through observation, modeling, cognition, and environment. The observed results are self-confidence, behavior change, motivation, action, influential relationships, and mutual purpose. These areas interact and lead to transformation within the individual, the organization, and the community. (p. 186).

Nevertheless, such transformations require a great deal of interpersonal risk, and the risk is much higher for Black women due to the stereotypes tied to their intersectional identities (i.e., Angry Black Woman, Incompetence; Edmondson, 1999; Kahn, 1990; Kwon et al., 2020; Rosette et al., 2016, 2018). As a response, Black women do not feel safe taking risks due to the fear of negative repercussions and are ultimately held back from developing their leadership capacity and attaining senior leadership positions (Hu-Chan, 2020; Rosette et al., 2016, 2018; Seo et al., 2017). Psychological safety, then, is critical for leadership development due to the role it plays in driving learning and performance outcomes (Day et al., 2021; Frazier et al., 2017; Kwon et al., 2020; Newman et al., 2017).

In addition to psychological safety being a critical factor in learning and performance outcomes at both the individual and organizational level, such as those from leadership development programs, it is also essential for marginalized groups in the workplace (Day et al., 2021; Edmondson & Lei, 2014; Frazier et al., 2017; Hu-Chan, 2020; Kwon et al., 2020; Newman et al., 2017). The presence of psychological safety could mean that Black women to feel safe taking risks and be their authentic selves

without fear of negative consequences to self-image, career, or status (Edmondson & Lei, 2014; Flores et al., 2021; Frazier et al., 2017; Hu-Chan, 2020; Kahn, 1990; Newman et al., 2017). Black women can then effectively and freely develop their leadership capacity as they participate in leadership development programs and finally attain a seat at the table.

Despite the impact that intersectional identities have on everyday experiences, there is a lack of studies focusing on intersectionality, which harms Black women and creates a fragmented view of their experiences (Carter & Cisco, 2022; Coles & Paske, 2020; Lanier et al., 2022; Rosette et al., 2016, 2018; Seo et al., 2017). Further, because of the lack of research focused on intersectional identities, the current understanding of how intersectionality influences perceptions of psychological safety that, in turn, impact outcomes of leadership programs are virtually nonexistent (Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2016, 2018; Seo et al., 2017).

In this study, I used intersectionality to understand Black women's perceptions of psychological safety and outcomes of leadership programs. I increased the understanding of intersectionality and how social identities intersect or overlap to shape individual experiences and social inequities. Organizations can use the results of this study to effectively develop Black women and support their leadership journey. This may result in more diverse and inclusive leadership teams, which are associated with improved organizational performance and innovation.

Literature Review

Leadership Development

Organizations invest tremendous resources into leadership development because it is one of the most important predictors of organizational success (Day et al., 2021; DeRue & Myers, 2014). Leadership development is the foundation for various theories and models that have been developed to explain why some individuals are effective leaders (Amagoh, 2009; Day, 2000; Day et al., 2021; DeRue & Myers, 2014; Kjellstrom et al., 2014). Despite playing a foundational role, scholars cannot reach a consensus on conceptualizing leadership development, causing disparity and confusion in the field.

Leader and Leadership Development

Some scholars have adopted a broader conceptualization of leadership development. For instance, Kjellstrom et al. (2014) argue that leadership development encompasses various developmental forms such as one's own development, leadership development, personal development, organizational/cultural development, collective development, and human development. In this conceptualization, the authors highlight that the different forms of development do not merely define leadership development but highlight the different ways individuals understand it (Kjellstrom et al., 2014).

Other scholars have been vocal about distinguishing between the two development forms, mainly leader and leadership development. According to Day (2000), leader development focuses on an individual's capacity to participate in leader-follower processes and generally presumes that developing an individual's leadership knowledge, skills, and abilities (KSAs) will result in more effective leadership (Day, 2000; Day et al., 2021). In contrast, leadership development focuses on developing the

capacity of collectives to engage in leadership processes (Day et al., 2021). Specifically, leadership development refers to building the mutual commitments and interpersonal relationships that are necessary for leading-following processes to unfold effectively within a given social context (Day, 2000; Day et al., 2021). Based on that distinction, leader development focuses on individuals and the development of human capital, while leadership development attends to the interpersonal dynamics of leadership and focuses on the development of social capital (Day, 2000; Day et al., 2021; DeRue & Myers, 2014).

The concern with conceptualizing leadership development is that the current literature has historically focused on leader development in an attempt to understand and explain leadership development or acknowledge the importance of leadership development but then narrow the focus on leader development (Day, 2000; Day et al., 2021; DeRue & Myers, 2014). The lack of consensus is unfortunate because both forms of development are necessary but insufficient for understanding how leadership capacity is developed; this is even more apparent in today's environment as organizations embrace more collective and shared leadership models.

DeRue and Myers (2014) further highlighted the limitation of distinguishing between the two forms of development and stated that such a view does not account for leadership as a complex and interactive process among multiple actors who are both leading and following or that the relationships that are created and maintained within the social context can have a strong influence on how leadership processes emerge and evolve (DeRue & Myers, 2014).

Although leadership development has been conceptualized in many ways, the core is still the same, which is preparation for advancement within an organization and to the continuous learning of those occupying these positions (Amagoh, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2014; Rothelberg, 2007). Nonetheless, it is apparent that the lack of consensus on conceptualizing this construct has led to confusion and has proven to be problematic for research and theory development (Amagoh, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2014). In fact, previous researchers have stated that there is a plethora of studies focusing on leader development and fewer studies are focusing on leadership development; yet the ideal approach is to find ways to connect and integrate across these domains instead of adopting an either/or perspective (Day, 2000; DeRue & Myers, 2014; Kjellstrom et al., 2014; Lord & Hall, 2005).

In an effort to simplify and better understand how both forms of development lead to the expansion of leadership capacity, a broad definition was introduced by researchers. Leadership development is the process of preparing individuals and collectives to effectively engage in leading-following interactions (Day et al., 2021; DeRue & Myers, 2014). This new definition of leadership development covers the development of individual skills and competencies and emphasizes a range of relational and collective outputs of leadership development (DeRue & Myers, 2014). Thus, this study conceptualized leadership development based on the definition mentioned above because it highlights both types of development and resulted in a less obfuscated view of how to approach the concept of leadership development.

Leadership Development Programs: Types and Outcomes

Leadership development programs have been utilized for decades and are now considered a standard practice typically conducted by organizations, consulting firms, or private vendors (Day et al., 2021; Vogel et al., 2021). In fact, the availability of such programs has been dubbed a critical factor in assessing continued advancement within an organization (Foster, 2021). Examples of such programs include training, feedback, assessments, coaching, mentoring, networking, job/stretch assignments, and action learning (Amagoh, 2009; Day, 2000; Day et al., 2021; Vogel et al., 2021). Leadership development programs aid in building skillsets and behaviors that enable individuals to become effective leaders and advance within the organization (Beckwith et al., 2016; Black & Earnest, 2009; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021).

The Theoretical Model of Leadership posits that program outcomes occur at the individual, organizational, and community levels (Black & Earnest, 2009). The individual domain is where most of the direct benefits of the leadership development program will occur and where the most program-associated results might be expected (Black & Earnest, 2009; Grove et al., 2005; Kjellstrom et al., 2014). Individual level outcomes are focused on self-confidence, interpersonal and organizational skills, community involvement, and creative thinking (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020).

The organizational domain is where results occur within the organizations where the program participants work. Results can also occur outside organizations where the participants have contact (Black & Earnest, 2009; Grove et al., 2005; Kjellstrom et al., 2014). Organizational-level outcomes focused on business decision making,

innovativeness, use of business resources, new leadership skills, improved management skills, and bringing new perspectives and ideas to the business (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020). These outcomes are considered organizational because they can benefit the organization in terms of profitability, maintaining a competitive edge, and ensuring long-term success (Black & Earnest, 2009). For instance, one's ability to bring new perspectives or ideas to the business can lead them to create new organizational strategies or directions that lead to positive evidential and evocative results for the organization (Black & Earnest, 2009).

Finally, the community domain refers to communities, such as social or professional networks, to which the program participants' influences extend either directly or through their organizational work (Black & Earnest, 2009; Grove et al., 2005; Kjellstrom et al., 2014). Community-level outcomes focused on increased involvement, awareness of time, and appreciation of cultural differences (Black & Earnest, 2009; Day, 2000; Day et al., 2021; Kjellstrom et al., 2020). Similar to organizational outcomes, these outcomes translate into community outcomes because they can benefit the community in terms of cohesiveness, increasing civic awareness and consciousness (Black & Earnest, 2009). For instance, the skills gained through a leadership program can be applied to various community involvements such as volunteering for local boards (Black & Earnest, 2009; Grove et al., 2005).

Leadership Development and Black Women

The leadership research field has historically privileged White men and highlighted a race-neutral image of women leaders (Burton et al., 2021; Coles & Paske, 2020; Corrington et al., 2020; Lanier et al., 2022; Petsko & Rosette, 2023). Such

depictions champion “White leaders as prototypical” (Rosette et al., 2018, p. 759). Even today, the White-leader associations are very much alive (Petsko & Rosette, 2023).

Nevertheless, according to intersectional theory, the effects of race and gender cannot be separated because Black women live at the intersection of sexism and racism (Carter & Cisco, 2022; Coles & Paske, 2020; Corrington et al., 2020). As such, social identities such as gender and race influence all aspects of the leadership experience, especially development and its associated outcomes (Beckwith et al., 2016; Coles & Paske, 2020; Corrington et al., 2020; Gipson et al., 2017; Petsko & Rosette, 2023).

Despite the impact that social identities have on various outcomes, especially leadership development, not many scholars focused on social identities and how they intersect to impact individual and organizational outcomes. Due to this lack of intersectional focus, there is a deficiency in understanding how race and gender intersect to impact the outcomes of leadership development for Black women (Davis, 2016). The literature does not attend to the differences that race and gender may play in shaping the progression to leadership roles for Black women (Rosette et al., 2016). This gap has left an incongruity in understanding of how Black women’s racial and gendered identities influence their development as leaders.

Social identity is vital for leadership development because it requires the integration of personal, social, and professional identities (Coles & Paske, 2020; Munusamy et al., 2010). The characteristics of social identities also matter. According to previous research, groups or individuals more readily accept a leader who is prototypical or representative of the group, and the exhibited leader behaviors are more readily recognized as leadership behaviors and are received positively (Coles & Paske, 2020;

Munusamy et al., 2010; Petsko & Rosette, 2023). In contrast, the ability of an individual from a nondominant group, like Black women, to develop a leader identity will be influenced by how readily the collective accepts them (Coles & Paske, 2020; Munusamy et al., 2010).

In sum, individuals are more willing to endorse a leader who is the epitome of the group and are less willing to accept a leader who is not considered to be representative of the group. This is imperative for Black women because they are usually a part of the outgroup and do not exhibit the prototypical characteristics of a leader, which is either male and/or White (Burton et al., 2021; Carter & Cisco, 2022; Coles & Paske, 2020; Corrington et al., 2020; Petsko & Rosette, 2023; Rosette et al., 2018; Sims, 2022; Sims et al., 2022). Such findings help to partially explain the vast underrepresentation of Black women in leadership roles.

Even with the passing of anti-discrimination laws, being a Black woman is doubly challenging due to the covert discrimination that still occurs today. The realities of Black women are incomparable to women from other racial backgrounds because they live bicultural life experiences and deal with intersectional barriers as they navigate two worlds, their predominantly White male-dominated professional work world, and their predominantly Black community world (Hopkins et al., 2008).

Despite the general female stereotype of communal nature, Black women's most prominent ascribed traits included both communal and agentic qualities, meaning that such traits are both distinct yet similar to White and Asian women (Rosette et al., 2016, 2018). According to previous research, characteristics related to dominance were used most to describe Black women, and they were perceived as possessing more traits

associated with these racial personas than White women (Donovan, 2011; Hebl et al., 2021; Rosette et al., 2018). In fact, Black women have been viewed as domineering and overbearing for decades, resulting in portrays such as the Angry Black Women and the Strong Black Women (Hebl et al., 2021; Rosette et al., 2016, 2018).

The perceptions and representations of Black women also align with the emerging research. Warmth is an expectation for White women, while strength, assertiveness, dominance, aggression, incompetence, and lack of confidence are the expectations for Black women (Hebl et al., 2021; Rosette et al., 2016, 2018). Due to the incongruity with prevailing communal stereotypes, women who behave in a dominant manner face backlash; thus, the dominance ascribed to Black women suggests that they might experience a suspension of backlash that can only be observable through investigations that attend to intersectionality (Rosette et al., 2018). To put it simply, due to perceptions of counter-stereotypical behavior, the repercussions for gender backlash are distinct for Black women as compared to White women. As a result, Black women will avoid dominant behavior due to its association with negative hiring and leadership repercussions (Hebl et al., 2021; Rosette et al., 2016, 2018).

Despite Black women facing heightened perceptions of incompetence compared to White women, the behavioral freedom resulting from Black women's dominant prescriptions can benefit them in leadership positions. According to previous findings, Black women are more likely than women from other racial groups to be selected for leadership roles necessitating fierceness and competitiveness (Galinsky et al., 2013; Rosette et al., 2018). Such a finding signals that the perceptions of agentic deficiency that typically preclude women from attaining leadership roles may not serve as a barrier in the

same way for Black women, and intersectional invisibility can help explain as to why that is (Rosette et al., 2018). Individuals with multiple subordinate identities are rendered non-prototypical members of their groups and will literally go unnoticed under some circumstances (Coles & Paske, 2020; Munusamy et al., 2010; Petsko & Rosette, 2023).

While dominance is highly attractive for leadership, the incompetence associated with Black women is not. Even though the majority of the studies examining incompetence have specifically used Black males, findings still support the notion that Black women suffer from negative perceptions of incompetence that greatly disadvantage them in organizational settings (Coles & Paske, 2020; Hebl et al., 2021; Munusamy et al., 2010; Petsko & Rosette, 2023; Rosette et al., 2018). To help explain this, researchers have turned towards examining perceptions of Black women as non-prototypical; as such, they must work harder than other groups to demonstrate their competence and appropriateness for high-status job roles (Rosette et al., 2018). This contrasts with findings from the “glass cliff” research, which suggested that women, in general, are more likely to be asked to lead organizations in financially risky positions because they are perceived to possess the attributes that are suitable for managing these situations (Carter & Cisco, 2022; Ryan et al., 2011).

Therefore, despite Black women experiencing benefits once they access leadership roles because of dominance stereotypes, their presumed incompetence likely impedes their attainment of top roles and at least partially explains their immense underrepresentation in leadership roles (Rosette et al., 2018). Such findings support that the consequences for Black women are, in fact, unique due to barriers such as perceptions of counter-stereotypical behavior, which are disadvantageous and detrimental to their

leadership development (Beckwith et al., 2016; Corrington et al., 2020; Ely et al., 2012; Gipson et al., 2017; Hebl et al., 2021).

Black Women's Leadership Development

To help overcome the underrepresentation of Black women in leadership roles, many organizations turn to leadership development practices as a way to help Black women develop leadership capacities and attain a seat at the table (Beckwith et al., 2016; Carter & Cisco, 2022; Frazier et al., 2017; Hopkins et al., 2008). As previously mentioned, leadership development programs have been highly favored due to their effectiveness and impact on individual and organizational outcomes, which is why organizations invest heavily in such initiatives (Kimball et al., 2021). Despite their popularity, the effectiveness of such programs differs for Black women because they were not built with intersectional identities and associated needs in mind (Beckwith et al., 2016; Carter & Cisco, 2022; Dobbin et al., 2011; Frazier et al., 2017; Hopkins et al., 2008; Kwon et al., 2020).

Lack of representation, content and delivery, and generic leadership programs that create a one-size-fits-all approach neglect the needs of marginalized participants and limits the overall program impact (Kimball et al., 2021). According to previous findings, failing to provide leadership development programs that result from organizational policies that support not only qualified but also a diverse employee group has been said to impact the effectiveness of leadership programs for Black women (Beckwith et al., 2016). Further, the lack of identifying and aligning measurable program objectives based on the participant's needs was also found to impact the effectiveness of such programs for this marginalized group (Kimball et al., 2021). Lack of representation in such

programs impacts Black women's ability to see themselves in leadership roles and limits their professional growth, and programs that do not take into account the unique experiences and challenges faced by Black women may not provide the necessary tools and skills for them to succeed in leadership roles (Carter & Cisco, 2022; Corrington et al., 2020; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018).

As such, representation, considering unique experiences, understanding participant needs, and aligning them to program objectives can increase learning and positive behavioral changes on the job (Kimball et al., 2021). In addition to the above, previous research found that the organization's environment can impact Black women's ability to develop their leadership capacity and recommended that future research examine other, less studied, factors that may affect those with intersectional identities (Carter & Cisco, 2022; Corrington et al., 2020; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018). Historically, organizational cultures have been gendered where the assumptions about leaders and the contributors to effective leadership are typically male-normed (Longman et al., 2018; Petsko & Rosette, 2023).

According to Helgesen and Johnson (2010), highly talented women choose to leave well-paying jobs due to the "increasing recognition that the structure of work was designed to reflect the realities of an all-male workforce whose constituents had few, if any, domestic responsibilities beyond supporting their families" (p. 58), contributing to a "mental mismatch between what the marketplace assumes people will value in their work and what women . . . most deeply value" (p. 58). This perception of a mismatch is

enhanced “because organizations still offer reward, recognize achievement, build incentive, and decide promotion using definitions of worth that reflect an all-male industrial leadership culture” (Helgesen & Johnson, 2010, p. 58). In regard to expectations and evaluation of leadership, such cultural expectations and structures influence the beliefs, behaviors, and experiences of people within an organization.

The varying effectiveness of leadership programs for Black women is not just due to the male-dominated ideals that are rampant in today’s organizations. Other factors affecting Black women’s ability to develop leadership capacities include their work environment. The presence of systemic and institutional biases can create a challenging work environment for Black women as these biases may manifest in various ways, such as microaggressions and discrimination. According to previous research, environments that are hostile, uncivil, and cultivate intersectional discrimination were found to stifle leadership development, negatively impact one’s sense of belonging, and hinder learning opportunities (Dobbin et al., 2011; Frazier et al., 2017; Kwon et al., 2020). For Black women, such an environment can negatively impact their sense of belonging and restrains them from developing their leadership capacities because they are less likely to take risks (Carter & Cisco, 2022; Dobbin et al., 2011; Frazier et al., 2017; Kwon et al., 2020).

A hostile work environment can increase stress for Black women and others who observe or hear about it, which could negatively influence performance outcomes (Dobbin et al., 2011; Frazier et al., 2017; Kwon et al., 2020). Further, if Black women fear that they will be disciplined or laughed at for an idea or for trying an idea that fails, they are far less likely to risk sharing new concepts, designs, or insights; They are not likely to attempt anything that might not succeed (Ungvarsky, 2021). As a result, Black

women's innovation is stifled, and the organization could miss out on innovative ideas or solutions and improved processes that would have been beneficial for organizational success (Ungvarsky, 2021). Based on such findings, it is evident that the work environment is vital to consider when it comes to Black women and leadership development.

Psychological Safety

Psychological safety is an interpersonal construct that has been repeatedly linked to adult learning and developmental outcomes at both the individual and group levels (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020; Newman et al., 2017; Woodson, 2020). Considered an interpersonal construct, psychological safety refers to an individual's perception or belief that they feel safe taking risks without negative repercussions to their career or self-image (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Newman et al., 2017). Hence, psychological safety reflects the relationship between an individual's perception and the work environment and serves as an antecedent for the individual's subsequent behavior in the workplace and organizational and individual outcomes (Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020; Newman et al., 2017).

The concept of psychological safety dates back to 1960 and has drawn increasing attention over the last few decades. Schein and Bennis (1965) studied psychological safety in the workplace in regard to organizational change and found that individuals feel safe only if they possess the ability to change. The authors argued that psychological safety was essential for making people feel secure and capable of changing their behavior

in response to shifting organizational challenges. Later, Shein (1965) argued that psychological safety aids individuals in overcoming the defensiveness, or learning anxiety, that occurs when they are presented with data that contradict their expectations or hopes. With psychological safety, individuals are free to focus on goals and problem prevention rather than on self-protection (Shein, 1993).

As organizations sought to be more successful in a competitive marketplace during the 1990s, psychological safety gained additional interest. Khan's (1990) influential paper revitalized the research on psychological safety through qualitative studies of employees of architectural firm employees and summer camp counselors. Findings showed that psychological safety enables personal engagement at work because it affects individuals' willingness to "employ or express themselves physically, cognitively, and emotionally during role performances," rather than disengage or "withdraw and defend their personal selves" (Khan, 1990, p. 694).

According to Khan (1990), psychological safety exists when individuals feel safe enough to trust that they will not be punished for their engagement or for being themselves. These types of trusting relationships allow an individual to take risks without fear of the consequences (Kahn, 1990). In addition, it was determined that psychological safety exists within role performance and is dependent on employees remaining within the boundaries of organizational norms (Khan, 1990). In other words, if employees behaved and worked in ways that were deemed as generally accepted standards, including not questioning habitual patterns or norms of coworkers or the organization as a whole, they would experience more safety (Kahn, 1990).

Edmondson's (1999, 2014, 2019) seminal work on psychological safety focused on groups or teams but also offered similar observations as she described that psychological safety is available in an environment that promotes respect for others' ideas, questions, or concerns. Other researchers focused on organizations as the level of analysis. Brown and Leigh (1996) studied psychological safety at the organizational level and found that leadership support, clear job roles, and allowing for self-expression impacted employee perceptions regarding the organizational environment in regard to psychological safety. May et al. (2004) discussed the effect on coworker and supervisor relations regarding felt psychological safety. Trust and supportiveness were needed in these relationships to promote feelings of psychological safety; as such, the authors emphasized the importance of supervisors fostering a culture of openness, attending to the needs and feelings of others, and encouraging employees to voice concerns (May et al., 2004). Other researchers further support such findings. In their research on high technology firms, Collins and Smith (2006) found that organizational social climates of trust, cooperation, and shared codes were vital for performance and their subsequent effect on knowledge sharing.

Factors Impacting Psychological Safety

Various researchers have offered insights into what factors limit or hinder psychological safety. According to previous findings, fear does not drive a psychologically safe environment; instead, it limits learning, analytical thinking, and problem-solving (Carmeli & Gittell, 2009; Edmondson, 2019). Conversely, psychological safety does not simply promote endless support for everything said, nor does it flourish on extreme niceties (Edmondson, 2019). Even if it creates uncomfortable situations,

psychologically safe environments welcome disagreement and debate because learning can only occur when individuals are able to engage and learn from different points of view (Edmondson, 2019). In addition, two crucial factors have been found to impact psychological safety positively and negatively: interpersonal and structural factors (Edmondson, 2019).

Interpersonal factors can refer to things such as self-consciousness and leader behavior, while examples of structural factors include team resources and rewards. May et al. (2004) found self-consciousness and psychological safety to be negatively correlated. This means that depending on how others evaluate and perceive an individual, it can ultimately result in external cues that decrease one's perception of psychological safety. As for structural factors, previous research found that interpersonal trust and support can eliminate uncertainty and reduce conflict, further ensuring employees psychological safety (Khan, 1990; May et al., 2004). Similarly, a positive team environment where concern and support are demonstrated to employees and their inputs are solicited was found to enhance psychological safety (DeSmet et al., 2021).

Leadership behaviors and styles can also impact psychological safety. For instance, authoritative leadership behaviors and styles were found to be detrimental to psychological safety, while leadership styles that are consultative and supportive were found to promote psychological safety (DeSmet et al., 2021). Finally, the most significant factor impacting psychological safety in an organization is whether the organizations invest in leadership development programs that focus on specific skills that have been shown to promote psychological safety (DeSmet et al., 2021). For instance, situational humility and open-skills dialogue promote psychological safety because employees are

encouraged to develop a growth mindset and curiosity so they can learn how to explore disagreements and talk through difficult conversations (DeSmet et al., 2021).

Outcomes Of Psychological Safety

The outcomes of psychological safety have been previously investigated by researchers. Psychological safety has been shown to predict learning and performance outcomes at the individual, team, and organizational levels, such as those from leadership development programs (Day et al., 2021; Edmondson & Lei, 2014; Frazier et al., 2017; Kwon et al., 2020; Newman et al., 2017). At the individual level, psychological safety allows individuals to feel safe, fearless, encouraged to recognize their capabilities and unique skillsets, and are not afraid to experiment or make mistakes due to the negative repercussions to their careers (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020). As a result, employees are motivated to develop new ways of doing things and are more willing to listen to others' ideas (DeSmet et al., 2021; Ungvarsky, 2021). They persist in finding solutions to problems and recover more quickly from setbacks or failures (DeSmet et al., 2021; Ungvarsky, 2021). This type of creative problem-solving and innovation-friendly thinking makes it more likely for the employees and the organization they represent to succeed (DeSmet et al., 2021; Ungvarsky, 2021).

At the group level, psychological safety is a source of a supportive and healthy climate that results in improved innovation and creativity within the entire group (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020). At the organizational level, psychological safety results in benefits such as less turnover, increased success and innovation, increased employee

satisfaction, and positive organizational performance in terms of meeting organizational goals (Baer & Frese, 2003; Cataldo et al., 2009; DeSmet et al., 2021; Ungvarsky, 2021). Additional organizational benefits include unlocking the benefits of diversity and adapting well to change, all of which are capabilities that have grown in importance during the COVID-19 pandemic (Baer & Frese, 2003; Cataldo et al., 2009; DeSmet et al., 2021).

As for moderators of psychological safety, earlier studies have examined in-role behaviors and found that a high level of confidence reduced the strength of the relationship between psychological safety and knowledge sharing (Siemsen et al., 2009). Other studies reported that supportive leadership behaviors moderated the relationship between psychological safety and work-related outcomes such as job performance and engagement (Carmeli et al., 2010; Frazier et al., 2017; May et al., 2004).

In sum, psychological safety is vital for individual, team, and organizational level outcomes because it is regarded as an intermediate link between the organization's characteristics and individual outcomes, such as employee attitudes, motivation, and performance (Chen et al., 2015; Edmondson, 2003; Li Rui, 2009). Following this logic, psychological safety then activates reflection, cognitions, and unique thinking abilities for individuals and within groups that lead to positive outcomes such as improved performance and expansion of knowledge and skills (Higgins et al., 2022; Kwon et al., 2020).

Psychological Safety and Black Women

The importance of psychological safety for all employees is well noted by research, and psychological safety has been shown to have various benefits to the

employee as well as the organization (Carmeli & Gittell, 2009; Edmondson, 2014, 2019; Kahn, 1990; May et al., 2004). Specifically, organizations that invest in leadership development can reap the benefits such as improved innovation, experimentation, agility, better organizational performance, and improved financial health (DeSmet et al., 2021). Despite the importance of each employee feeling psychologically safe, research has shown that this may not be the case for specific employee groups. In fact, lower-status employees are more likely to feel less safe and avoid speaking up in general (DeSmet et al., 2021; Edmondson, 2019; Nacioglu, 2016). As previously mentioned, Black women are often grouped into lower-level jobs, and their intersectional identities are perceived as lower in status (Rosette et al., 2018; Sanchez-Hucles & Davis, 2010). Therefore, psychological safety is vital for this marginalized group, especially when it comes to leadership development.

Having strong business and problem-solving skills, building networks, modeling positive behaviors, being innovative, and bringing new perspectives and ideas to the organization are examples of leadership development outcomes that have been posited as characteristics and behaviors of effective leaders (Beckwith et al., 2016; Black & Earnest, 2009; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021). Such skills need to be developed and practiced on the job, but they require that the employee take interpersonal risks (Edmondson, 1999; Kahn, 1990; Kwon et al., 2020; Rosette et al., 2016, 2018).

For Black women, such an interpersonal risk is much higher due to the stereotypes tied to being black and being a woman, such as Angry Black Woman or Strong Black Woman (Hebl et al., 2021; Foster, 2021; Lanier et al., 2022; Rosette et al.,

2016, 2018). The dominance ascribed to Black women suggests that they could experience a backlash effect due to incongruence with the prevailing communal stereotypes of women (Coles & Paske, 2020; Donovan, 2011; Hebl et al., 2021; Rosette et al., 2016, 2018; Seo et al., 2017). Similarly, the incompetence ascribed to Black women suggests that they could experience microaggressions due to incongruence with the prevailing stereotypes tied to Black women and intelligence (Coles & Paske, 2020; Donovan, 2011; Foster, 2021; Hebl et al., 2021; Rosette et al., 2016, 2018; Seo et al., 2017). For example, Black women raising concerns and offering recommendations may be labeled as difficult to work with, or their expertise may be questioned (Foster, 2021).

As previously mentioned, Black women do not fit the prototypical traits of a leader, and this becomes problematic for them when they attempt to practice their leadership capacities (Beckwith et al., 2016; Day et al., 2021; Ely et al., 2012; Gipson et al., 2017; Hobbler et al., 2018; Rosette et al., 2016, 2018; Seo et al., 2017). For instance, a Black woman may speak up during meetings to raise valid points or offer novel ideas, yet she is ignored while her non-Black counterparts are praised for bringing up the same points and idea offerings. As a response, Black women may not feel safe taking risks due to fear of negative repressions and ultimately feel unseen, unheard, and steadily scrutinized (Hu-Chan, 2020; Rosette et al., 2016, 2018; Seo et al., 2017).

One way to decrease such risk is through psychological safety, where Black women can feel safe taking interpersonal risks and are able to show and employ their selves without fear of negative consequences to self-image, career, or status (Edmondson & Lei, 2014; Flores et al., 2021; Frazier et al., 2017; Kahn, 1990; Newman et al., 2017). In return, Black women can develop their leadership capacity effectively and freely as

they participate in leadership development programs, allowing them to finally attain a seat at the table. This is vital for Black women because when organizations scale up and invest in leadership development programs, they can equip leaders to embody psychologically safe behaviors and consequently cultivate psychological safety across the organization (DeSmet, 2021).

Despite the copious research on psychological safety, there is a gap in research regarding its importance for developing Black women into senior leadership roles (Day et al., 2021; Edmondson & Lei, 2014; Frazier et al., 2017; Hoobler et al., 2018). Further, there is a gap in the research regarding how gender and race moderate the relationship between psychological safety and leadership program outcomes at the individual and organizational levels (Day et al., 2021; DeRue & Myers, 2014; Edmondson & Lei, 2014; Flores et al., 2021; Frazier et al., 2018; Hoobler et al., 2018). Such a gap is mainly due to the lack of focus on intersectional identities; the current understanding of how intersectionality influences Black women's perceptions of psychological safety that, in turn, impacts outcomes of leadership programs is virtually nonexistent (Carter & Cisco, 2022; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Hu-Chan, 2020; Lanier et al., 2022; Newman et al., 2017; Rosette et al., 2016, 2018; Seo et al., 2017).

Summary and Conclusions

Black women face a double jeopardy because they are female and belong to a racial minority group, both of which subjects them to unique barriers (Crenshaw, 1989; Collins, 2009; Davis, 2016; Davis & Maldonado, 2015; Rosette et al., 2018). For instance, Black women face sexism, racism, intersectional invisibility, discrimination, and even stereotypes (Bauer et al., 2021; Carter & Cisco, 2022; Coles & Pasek, 2020;

Collins, 2015; Gipson et al., 2017; Rosette et al., 2016, 2018). Such barriers partially explain Black women's underrepresentation in leadership roles because they stifle their development, impacts their sense of belonging, and hinders their ability to develop leadership capacities (Carter & Cisco, 2022; Frazier et al., 2017; Kwon et al., 2020; Lanier et al., 2022). As a result, Black women feel isolated, excluded, underdeveloped, and are cast as invisible (Beckwith et al., 2016; Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017).

To help overcome the underrepresentation of Black women in leadership roles, many organizations turn to leadership development programs as a way to propel Black women into leadership roles and support their career ascension journey (Beckwith et al., 2016; Carter & Cisco, 2022; Frazier et al., 2017; Hopkins et al., 2008). The main reason organizations invest heavily in such programs is because they are highly effective and impact both individual and organizational outcomes (Kimball et al., 2021). Through these programs, individuals develop skillsets and behaviors that enable them to become effective leaders and advance within the organization (Beckwith et al., 2016; Black & Earnest, 2009; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021). Having strong business and problem-solving skills, building networks, modeling positive behaviors, and bringing new perspectives and ideas to the organization are examples of leadership development outcomes that have also been posited as characteristics and behaviors of effective leaders (Beckwith et al., 2016; Black & Earnest, 2009; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021). Such skills need to be developed and practiced on the job, but they require the employee to take interpersonal risks (Edmondson, 1999; Kahn, 1990; Kwon et al., 2020; Rosette et al., 2016, 2018).

The risk is much higher for Black women (Hebl et al., 2021; Foster, 2021; Lanier et al., 2022; Rosette et al., 2016, 2018). Black women do not fit the prototypical traits of a leader, and this becomes problematic for them when they attempt to practice their leadership capacities (Beckwith et al., 2016; Day et al., 2021; Ely et al., 2012; Gipson et al., 2017; Hobbler et al., 2018; Rosette et al., 2016, 2018; Seo et al., 2017). As a response, Black women may not feel safe taking risks due to fear of negative repercussions and ultimately feel unseen, unheard, and consistently scrutinized (Hu-Chan, 2020; Rosette et al., 2016, 2018; Seo et al., 2017). One way to decrease such risk is through psychological safety, where Black women can feel safe taking interpersonal risks and are able to show and employ their selves without fear of negative consequences to self-image, career, or status (Edmondson & Lei, 2014; Flores et al., 2021; Frazier et al., 2017; Kahn, 1990; Newman et al., 2017).

The literature attended to status and power as factors impacting psychological safety and reported that lower status or lower level employees perceive lower psychological safety (DeSmet et al., 2021; Edmondson, 2019; Nacioglu, 2016). The literature even emphasizes the importance of each employee feeling psychologically safe, especially when it comes to learning, development, and performance, such as those gained from leadership development programs (DeSmet et al., 2021; Edmondson, 2019; Nacioglu, 2016). Despite this, an intersectional focus is nonexistent, which results in the marginalization of Black women in research and theory development, leaving their realities and experiences to not be fully understood (Carter & Cisco. 2022; Crenshaw, 1989; Collins, 1990; Lanier et al., 2022; Roberts et al., 2020; Rosette et al., 2018; Sanchez-Hucles & Davis, 2010; Showunmi, 2021; Sims, 2022; Sims et al., 2022).

Specifically, the literature does not attend to the differences that both race and gender may play in shaping the outcomes of leadership development for Black women nor does it attend to the importance of psychological safety for this marginalized group (Rosette et al., 2016). The lack of intersectional focus is problematic because it cannot sufficiently address how Black women are subjugated and underrepresented in leadership roles (Carter & Cisco, 2022; Crenshaw, 1989; Davis & Maldonado, 2015; Lanier et al., 2022; Rosette et al., 2018). As a result, there is an incongruity in the understanding of how psychological safety influence developmental program outcomes and what impact does Black women's racial and gendered identities have.

The gaps in literature are evident and further highlighted by researchers offering future recommendations. Researchers called for additional studies that focus on intersectional identities in lieu of the one-way view on either race or gender because the influence of sexism and racism cannot be parceled out as discrete experiences (Carter & Cisco, 2022; Lanier et al., 2022; Roberts et al., 2020; Sanchez-Hucles & Davis, 2010; Showunmi, 2021; Sims, 2022; Sims et al., 2022). Researchers also called for a deeper look into how other, less studied, factors can impact the outcomes of leadership programs for individuals with intersectional identities, such as Black women (Day et al., 2021; Dobbin et al., 2011; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018; Seo et al., 2017).

Further, because there is a gap in research regarding the impact psychological safety has on Black women developing their leadership capacity, researchers called for studies examining psychological safety to have an intersectional focus (Day et al., 2021; Edmondson & Lei, 2014; Frazier et al., 2017; Hoobler et al., 2018). Finally, the most

significant gap in the literature regarding Black women and leadership is the multiple calls for future research to utilize quantitative or mixed methods approaches as there is an overemphasis on qualitative studies on the topic (Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017).

To answer the various calls made by researchers, this study focused on the intersectional identities of Black women and psychological safety, an interpersonal construct that has been repeatedly linked to adult learning and developmental outcomes at various levels of analysis (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020; Newman et al., 2017; Woodson, 2020). By investigating psychological safety and its relationship with leadership program outcomes at the individual and organizational level while focusing on the intersectional identities of Black women, this study helped close the current gap in research and further highlighted the impact of intersectionality on leadership program outcomes. Moreover, this study utilized a quantitative approach with significant enhancements, which involved using qualitative techniques to maximize the interpretation of the quantitative data (Leech & Onwuegbuzie, 2007). This method complies with the recommendation of triangulating data that was given by the author of the Leadership Program Outcomes Measure (Black & Earnest, 2009). Thus, the design did not just measure Black women's perceptions of psychological safety and its impact on leadership development outcomes. It also included additional qualitative insights from respondents that deepen understanding (Black & Earnest, 2009).

This study highlighted the importance of recognizing how intersectional identities overlap to influence workplace outcomes. Such findings can help organizations develop

leadership development programs with marginalized groups in mind and help identify other barriers that contradict leadership program goals and negatively impact the outcomes of such initiatives (Flores et al., 2021). Further, the theoretical significance of this study lied in its potential to make an original research contribution to the concept of intersectionality as it related to Black women and leadership (Collins, 2015; Day et al., 2021; Kwon et al., 2020; Rocco et al., 2014; Rosette et al., 2018; Seo et al., 2017; Sims, 2022; Sims et al., 2022). In the following chapter, the proposed research design and rationale will be discussed. The discussion will include an in-depth explanation of the research methodology, participants and sampling procedure, data collection process, instrumentation, data analysis plan, and threats to validity.

Chapter 3: Research Method

In this nonexperimental quantitative study, I examined the relationship between psychological safety and leadership development outcomes at the individual and organizational levels and whether such a relationship differed based on an individual's intersectional identity, specifically race and gender. I used a quantitative approach with significant enhancements, which involved using qualitative techniques to maximize the interpretation of the quantitative data. I measured Black women's perceptions of psychological safety and its impact on leadership development outcomes as well as additional qualitative insights that helped to deepen understanding. In this chapter, I discuss the research design and rationale, methodology, population, sampling and sampling procedure, procedures for recruitment, participation, and data collection. I will also discuss instrumentation, operationalization of constructs, data analysis plan, threats to validity, and a summary of the chapter.

Research Design and Rationale

Psychological safety was the independent or predictor variable, leadership program outcomes at the individual level and leadership program outcomes at the organizational level were the dependent or outcome variables, and the moderator variables were race and sex. As for controlling for covariates, Bauer et al. (2021) recommended that future research pertaining to quantitative intersectional studies be explicit and provide a clear rationale for any possible covariates and the role they play. Following this recommendation, I used descriptive statistics such as socioeconomic status (SES), education level, sexual orientation, and age to run a preliminary analysis. In doing

so, I identified and controlled for any significant covariates that were identified as intersectional identities and would have impacted findings.

The specific research design for this study included a multivariate general linear model (MGLM), specifically multiple linear regression with interaction (Hahs-Vaughn, 2017). I did this because I was interested in testing the relationship between psychological safety and leadership program outcomes at the individual and organizational levels. Further, I was also interested in the additive or combined effects of race and gender on said relationship.

Hypothesis 1 tested for relationship between psychological safety and leadership program outcomes at the individual level via a hierarchical regression with stepwise technique. Hypothesis 2 tested the relationship between psychological safety and leadership program outcomes at the organizational level via linear regression. Hypothesis 3 tested whether race and gender intersect to produce a change in the direction of said relationships via MGLM. However, before conducting the interaction step of the analysis for Hypothesis 3, I analyzed the main effects of gender and race, followed by testing the interaction effects of gender and race on leadership program outcomes. I did this to analyze how gender and race can impact the relationship between psychological safety and leadership program outcomes, essentially resulting in a different experience and reality for Black women.

By using MGLM, I was able to decrease the chances for Type I error which would be more evident if I would have run multiple ANOVAs and allowed for the DV's to be examined collectively. Also, if I was to conduct a separate analysis for each outcome, there would not have been any available information on any interactive effects.

By making this design choice, I assessed if race and gender were operating independently of each other (i.e., no interaction exists) or whether the two factors operated together to produce an additive effect on the relationship between psychological safety and leadership program outcomes at the individual and organizational levels (i.e., an interaction exists).

I analyzed how being a female and being Black can impact the relationship between psychological safety and leadership program outcomes, essentially resulting in a different experience and reality for this marginalized group. Further, the approach aligns with intersectionality theory, which posits that social identities are not independent; rather, they intersect or overlap to shape individual experiences (Rosette et al., 2018). Finally, this approach aligns with the majority of quantitative or mixed-method approaches to intersectional research, as the most common, and recommended, methods were those applying regression in ways that result in heterogeneity across intersections, such as regression with interaction effects (Bauer et al., 2021; Else-Quest & Hyde, 2016; Warner, 2008).

Methodology

In the following section, I will detail the planned methodology in sufficient depth to ensure the study is replicable by other researchers.

Population

The target population for this study included women and men that identified with their biological sex. The racial makeup of the target population included African American/Black and White individuals. Further, the target population were individuals that have finished a leadership development program that was initiated and rolled out by

their employing organizations within the past 5 years. Thus, I was not interested in participants who have undergone leadership programs before the past five years, are currently undergoing a leadership program, or went through a leadership program not initiated and rolled out by their employing organization. This feature allowed for more robust responses as participants were able to detail and reflect on the outcomes gained from their leadership program.

I used G*Power 3.1 to calculate statistical power analysis and determine the appropriate sample size for this study. In the software, I entered 0.15 for the effect size, which is considered a medium effect size, alpha at 0.5, and power at .95. Then, I entered psychological safety, sex, and race as the number of tested predictors. I also entered psychological safety, race, sex, tenure, age, SES, and sexual orientation as the total number of predictors. Based on the entered information, the software recommended a sample size of 119 (Faul et al., 2009). Although 119 was recommended as a sample size, I collected data from 308 participants to ensure a robust sample.

Sample and Sampling Procedures

A purposive convenience sampling tactic was used for this study. A convenience sample is drawn from a convenient source and a purposive sample is the one whose characteristics are defined for a purpose that is relevant to the study (Andrade, 2021). The sample for this study was selected from Amazon's Mechanical Turk, a system created by Amazon and turned into a platform where researchers could offer surveys and perform experiments (Chandler et al., 2019; Gerlich et al., 2018; Mason & Suri, 2012). Mechanical Turk has become popular over the years because of its many advantages, including accessibility to willing participants (Buhrmester et al., 2011; Chandler et al.,

2019; Gerlich et al., 2018). In addition, the Mechanical Turk samples are more diverse than other samples found on the internet and in academic settings (Buhrmester et al., 2011; Chandler et al., 2019; Gerlich et al., 2018). Mechanical Turk allows individuals to be requesters; these are the individuals who create the task they need workers to complete (Buhrmester et al., 2011). Workers then can select which tasks, also known as hits, they want to complete and are given compensation to use on their Amazon account based on the task selected (Buhrmester et al., 2011). The compensation given for this proposed study was \$1.00.

The inclusion criteria for the study included that participants must be 18 years old, U.S. citizens living in the United States, employed full-time in a non-Mechanical Turk position from a single employer that involved working at least 35 hours per week, must identify with their biological gender either as male or female, and must be either African American/Black or White. Participants must have completed a leadership program initiated and rolled out by their employing organizations within the past 5 years. Hence, participants who have undergone leadership programs before the past 5 years, are currently undergoing a leadership program, or went through a leadership program not initiated and rolled out by their employing organization were excluded from the study. This inclusion criterion allowed for more robust responses as participants were able to detail and reflect on the outcomes gained from their leadership program.

Procedures for Recruitment, Participation, and Data Collection

Amazon's Mechanical Turk and Qualtrics were the main platforms that I used for recruitment, participation, and data collection. A hit was advertised on Mturk, and Turkers were able to review the hit and elect to participate in the study. To ensure

inclusion criteria was met, participants were asked specific eligibility or screening questions. The questions confirmed that all participants were over 18 years of age, U.S. citizens living in the United States, employed full-time in a non-Mechanical Turk position from a single employer that involved at least 35 hours of work per week, identified with their biological gender as female or male, identified as either African American/Black or White, and completed a leadership program initiated and rolled out by their employing organizations within the past 5 years (see Appendix A).

If participants did not meet the inclusion criteria, they were disqualified from moving forward in the study. Once participants went through screening, they were redirected to the surveys used for this study which were housed in Qualtrics, an online survey platform where researchers can build out surveys and assessments and collect and analyze both quantitative and qualitative data. In Qualtrics, participants were presented with the description of the study and the informed consent. Once a participant consented to participating, they were directed to start the surveys.

In addition to the screening protocol that was used in Mturk, there were four attention check questions embedded in the surveys that ensured the reliability of responses and helped filter out bots. If participants answered any of those attention check questions incorrectly, they were eliminated from the study and debriefed as to why. All four attention check questions instruct participants on how to answer the questions. For example, “If you are still paying attention, strongly disagree with the following statement: I recently had a fatal heart attack.” Demographic information was also used to ensure study requirements were met. For instance, demographics were cross referenced

with inclusion criteria to ensure participants were being truthful about their ability to participate in the study.

A final screening measure was instructing participants in the initial instructions that they had to enter the random code given at the end of the survey into their Mturk account to ensure payment. Any participants that did not enter the correct random code given were not paid and debriefed as to why. There was also an exit survey button on each page of the survey that was housed in Qualtrics in case participants decided to not continue with the study. Any incomplete responses were removed from the final analysis and the participants were not compensated. Once a participant completed the study, they were debriefed (see Appendix B) and asked to enter their TurkID so their responses mapped to their worker ID, and they were compensated \$1.00 for successfully participating in the study.

Instrumentation and Operationalization of Constructs

After completing the informed consent, participants were presented with a demographics form inquiring about their sex, race, SES, education level, sexual orientation, age, number of years with an organization, and job level/type (see Appendix C). The demographics were used to test for any possible covariates and to ensure study requirements were met.

Psychological safety was measured using Edmondson's (1999) 7-item Psychological Safety Measure to determine if participants felt psychological safety within their organization (see Appendix D). Participants provided their responses on a 5-point Likert-type scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). A sample item is "it is safe to take a risk at my organization." The psychological safety measure

had a Cronbach's alpha of .87 for this study. This aligns with previous research as this measure was reported to have a Cronbach's alpha range of .82 to .94 and has been deemed applicable for use with minor modifications that focus on the organizational level, versus team level, across various industries and diverse samples (Carmeli & Gittell, 2009; Carmeli et al., 2009, 2010; Chen et al., 2014; Edmondson, 1999; Nembhard & Edmondson, 2006).

Leadership development program outcomes were measured using Black and Earnest's (2009) 23-item Leadership Program Outcomes Measure (LPOM) to assess participants self-assessments of the outcomes of their leadership development post-program experience on an individual level (12 items) and on an organizational level (11 items). Participants provided their responses on a 5-point Likert-type scale ranging from 1 (*None*) to 5 (*A Great Deal*). The LPOM also included open-ended questions that allowed participants to list facts supporting their report of outcomes on each subscale of the instrument and to control for response-shift bias (Black & Earnest, 2009).

The 12 individual level items were focused on self-confidence, interpersonal and organizational skills, community involvement, and creative thinking (Black & Earnest, 2009). A sample individual item is "the leadership development program experience helped me to realize that I have the power to make a difference" and a sample individual open-ended item is "please describe three ways you have personally changed because of your leadership development program experience." The 11 organizational level items are focused on business decision making, innovativeness, use of business resources, new leadership skills, improved management skills, and bringing new perspectives and ideas to the business (Black & Earnest, 2009). A sample organizational item is "I became more

innovative in my approach to problem-solving” and a sample organizational open-ended item is “please describe three ways you have improved on a professional, organizational, or business level because of your leadership development program experience.”

The LPOM has been reported to have very high Cronbach’s alpha values for the two subscales, 0.91 for the individual level outcomes and 0.92 for the organizational level outcomes. The Cronbach’s alpha for this study were also very high for the two subscales, 0.90 for the individual level outcomes and 0.91 for the organizational level outcomes. Such high Cronbach’s alpha values indicate that each set of items is internally consistent and measures a common construct. Further, the LPOM has been deemed applicable for use in public or private leadership development programs looking to evaluate the post-effects of a program from a participant perspective (Black & Earnest, 2009; Newman et al., 2017).

Being that I focused on the post-program self-ratings of participants, the LPOM was appropriate choice. Further, although the LPOM included items to assess individual, organizational, and community level outcomes, this study was solely concerned with individual and organizational level outcomes. Such modification of the LPOM use was discussed and accepted by Dr. Black; the modification applied to the LPOM did not impact its psychometric properties.

Data Analysis Plan

The software used for quantitative analysis was IBM’s SPSS Version 27 (IBM Corp, 2020). As for the qualitative data analysis portion, I utilized Qualtrics Text iQ feature which uses machine learning and native language processing to discover patterns and trends across qualitative responses, groups them into themes or topics, and includes a

sentiment score (Rohan, n.d.; Qualtrics XM, n.d.). Although the Qualtrics Text iQ tool provides topic recommendations, it gives researchers the power to override recommendations and allows them to create new groups or themes based on unstructured data responses (Rohan, n.d.; Qualtrics XM, n.d.). Participants had open-ended questions to answer that were included in the LPOM. To qualitatively analyze the open-ended responses, I manually reviewed the data for verification purposes and to increase familiarity. Following that, I allowed Qualtrics Text iQ to populate themes then I modified any responses that were coded inappropriately. Being that the LPOM only included four open-ended responses, I did not have any limitations in verifying and analyzing the data using the Qualtrics Text iQ tool.

As for the quantitative data, I cleaned the data including dealing with any incomplete responses prior to hypotheses testing. Following that step, descriptive statistics, and preliminary analysis were analyzed. The correlation matrix was examined for internal consistency via Cronbach's alpha and correlation coefficients to identify which covariates were significantly related to the outcome variables. Once those covariates were identified, they were controlled for going forward. I also tested for assumptions such as linearity, homoscedasticity, independence of error terms, and normality (Shadish et al., 2002).

The first research question this study aimed to answer is what is the relationship between psychological safety and leadership program outcomes at the individual and organizational levels? It was hypothesized that psychological safety will be positively related to leadership program outcomes at the individual level (Hypothesis 1). It was also

hypothesized that psychological safety will be positively related to leadership program outcomes at the organizational level (Hypothesis 2).

To test the first hypothesis, I ran a hierarchical regression with a stepwise technique to test the relationship between psychological safety and leadership program outcomes at the individual level while controlling for age, religion, and how long ago someone completed their LDP. Age and religion are social identities, just like race and sex, and according to intersectionality theory, these identities can intersect to influence individual outcomes (Bauer et al., 2021; Coles & Paske, 2020; Collins, 1990; Crenshaw, 1989, 1991; Rosette et al., 2018). As for how many years ago the LDP was completed as a covariate, previous studies have shown that the length of time passed can impact outcomes of the study as participant results could have differed because of the of differences in maturation, which is a threat to internal validity (Shadish et al., 2002). When maturation is a problem, we do not really know if the changes reported for program outcomes are due to normal developmental processes operating within the subject as a function of time, like just maturing or getting more comfortable into the role.

In addition to the theoretical support, collinearity statistics were used to gain additional support for controlling those variables. There was no theoretical or statistical support for controlling any variables when it pertained to organizational level outcomes. As such, to test the second hypothesis, I ran another simple regression to test the relationship between psychological safety and leadership program outcomes at the organizational level.

The second research question this study aimed to answer is how does an individual's intersectional identity moderate the relationship between psychological

safety and leadership program outcomes at the individual and organizational levels? It was hypothesized that race and gender will moderate the relationship of psychological safety with leadership program outcomes at the individual and organizational levels, such that the effects of psychological safety will be stronger when the race is African American/Black, and the gender is female.

To test Hypothesis 3, I utilized an MGLM and examined whether main effects existed for each outcome variable separately. In this step, I examined the main effects of race, sex, and psychological safety on leadership program individual level outcomes and on leadership program organizational level outcomes. A Bonferroni correction was used to identify any significant main effects that existed for each outcome variable separately. Finding statistically significant effects of the predictor variables on the variate means that gender, race, and psychological safety work independently to have an effect on leadership program outcomes at the individual and organizational levels.

To test the interactions, I created dummy variables for race (1= African American/Black and 0= White) and gender (1= Female and 0= Male). As for groups, I indicated that African American/Black women were coded as 1, while African American/Black men, White men, and White women were coded as 0. This approach allowed me to compare African American/Black women to the other groups in the sample and facilitated the assessment of the impact of the variables without requiring a separate centering process. Following this step, I created a three-way interaction term (Race \times Gender \times Psychological Safety) and used a Bonferroni correction to identify any significant interaction effects that existed for each outcome variable separately. Finding

statistically significant interaction effects of (Race \times Gender \times Psychological Safety) on the variate means that Hypothesis 3 was supported.

Threats to Validity

Validity refers to the approximate truth of an inference (Shadish et al., 2002). It is not a property of designs or methods, but a property of inference because the same design could contribute to more or less valid inferences under different circumstances (Shadish et al., 2002). For example, utilizing a random experiment would not guarantee that one can make a valid inference about the existence of a descriptive causal relationship. In fact, no specific method can guarantee the validity of an inference because they do not have a 1:1 correspondence with any specific type of validity; the use of a method could impact more than one type of validity simultaneously (Shadish et al., 2002). To put it simply, validity is the extent to which one can say that the predictor variable caused the result of the outcome variable, and no other variable caused or had an influence on the results. Although there are many forms of validity, the following sections will only discuss external, internal, and construct validity.

External Validity

External validity is the validity of inferences about whether the cause-effect relationship holds over variation in person, settings, treatment variables, and measurement variables (Shadish et al., 2002). In other words, with external validity, the results have application to other people and situations. The highly specific sample chosen for this study may be viewed as a threat to external validity because findings may not hold over for other individuals such as Asians or Hispanics. Nonetheless, this study aimed not to examine how Black women differ from other marginalized groups such as

Hispanics and Asians. Instead, this study was solely focused on how African American/Black women differ from what is known to be the norm, which is White and/or male. Further, because the current literature has rendered Black women invisible especially when it pertains to leadership, it is vital that future studies start to highlight the plights of leadership for this marginalized group. In sum, external validity was not threatened in this study because of the specific focus on Black women and the study procedures were discussed in clear detail.

Internal Validity

Internal validity refers to the validity of inferences about whether observed covariation between A (the presumed treatment) and B (the presumed outcomes) reflects a causal relationship from A to B as those variables were manipulated or measured (Shadish et al., 2002). In simpler terms, internal validity is the extent to which one can say that the predictor variable caused the result and no other variable caused or had an influence on the results. To demonstrate high internal validity, one must have the following: relationship correlation conditions, conditions of temporal precedence that established a proper time order, and lack of alternative explanation conditions where results are not attributable to a confounding, extraneous variable (Shadish et al., 2002).

Maturation is a threat to internal validity where the changes in the outcome variable are due to normal developmental processes operating within the subject as a function of time (Shadish et al., 2002). One of the inclusion criteria for this study was that participants must have participated in a leadership development program initiated by their employing organizations within the past five years. The amount of time specified

could be a threat to internal validity because leadership program outcomes at both levels could be due to a result of just maturing or getting more comfortable into the role.

Another possibility is that some participant results are different due to how long ago they have partaken in a leadership program. For instance, a participant that underwent a leadership program five years ago may differ from the participant who took the program one to three years ago. This could be due to the COVID-19 pandemic and how it has changed the manner in which how and where employees work. To remedy the maturation threat, researchers can either ensure that all participants are roughly around the same age group or control for age and number of years since participating in leadership programs to ensure it is not affecting results (Shadish et al., 2002). Similarly, researchers can also control for the work environment since being hybrid, remote, or onsite can impact findings (Shadish et al., 2002).

Construct Validity

Construct validity refers to the validity of inferences about higher order constructs that represent sampling particulars (Shadish et al., 2002). In other words, has the researcher operationalized their hypotheses in ways that capture the concepts they are trying to study? To attain construct validity, one must ensure that the concepts studied were adequately operationalized. By utilizing established measures with high psychometric properties and using SPSS to evaluate the data and graphical depictions, I was able to attain construct validity. Moreover, by ensuring that the measures used reflect the variables that were measured, the likelihood of error and threats to construct validity is eliminated (Shadish, et al., 2002). The measures used for this study aligned with the research design and the operationalization of examined constructs. The instruments

effectively captured psychological safety perceptions and leadership program outcomes at multiple levels. In fact, the LPOM has been deemed applicable for use in public or private leadership development programs looking to evaluate the post-effects of a program from a participant perspective (Black & Earnest, 2009; Newman et al., 2017). Being that this study was focused on the post-program self-ratings of participants, the LPOM was an appropriate choice.

Ethical Procedures

To ensure ethicality, researchers must inform participants about the nature of the study, including disclosing any associated risk (Anderson et al., 2017). I informed participants about the nature of the study and confirmed that each participant provided their consent to participate in the study. I also emphasized that participants could withdraw at any time from the study. The informed consent form included details regarding the level of privacy. All answers were confidential and no names or identifying information were linked with individual answers to guarantee privacy for participants. Answers will be published only when combined in large group. In that way, no answers can be traced back to specific participants, as for associated risks, they were not higher than those of daily living.

The collected data was discreetly stored, managed, and presented in a confidential manner. I used an encrypted electronic folder to store collected data and Qualtrics required a password and 2-factor authentication that only I had access to. Moreover, the data used for analysis was stored in my personal computer, which was password protected and kept safely at my home office. The data will be securely stored for five

years, in which after that will be destroyed. This aligns with Walden's data retention policy.

Summary and Conclusions

Currently, the most significant gap in the literature regarding Black women and leadership is the multiple calls for future research to utilize quantitative or mixed methods approaches as there is an overemphasis on qualitative studies on the topic (Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2018; Seo et al., 2017). This quantitative study answered the numerous calls made by researchers since it utilized a quantitative method approach with significant enhancements (i.e., the use of qualitative techniques to maximize the interpretation of the quantitative data). This approach allowed for additional insights from respondents that allowed for a deeper understanding of how intersectionality morphs the experiences and realities of this marginalized group (Leech & Onwuegbuzie, 2007).

This nonexperimental quantitative study examined the relationship between perceptions of psychological safety (predictor variable) and leadership development outcomes at the individual and organizational levels (outcome variable) and whether such a relationship differed based on an individual's intersectional identity, specifically race and gender (moderator variables). Psychological safety was measured using Edmondson's (1999) 7-item Psychological Safety Measure to determine participants felt psychological safety within their organization (see Appendix D). Leadership development program outcomes were measured using Black and Earnest's (2009) 23-item Leadership Program Outcomes Measure (LPOM) to assess participants' self-assessments of the outcomes of their leadership development post-program experience on

an individual level (12 items) and on an organizational level (11 items). Race and gender were measured through participants indication on the demographic questionnaire (see Appendix C) and eligibility criteria (see Appendix A).

Faul et al., (2009) G*Power 3.1 recommended a sample size of 119. However, this study had a sample size of 308. Participants were recruited through Amazon's Mechanical Turk, a system created by Amazon and turned into a platform where researchers could offer surveys and perform experiments (Mason & Suri, 2012). The actual participation took place in Qualtrics, and participants were compensated \$1.00 for successfully completing the study. The inclusion criteria for the study included that participants consented to participate in the study, must be 18 years old, employed full-time in a non-Mechanical Turk position from a single employer that involved at least 35 hours of work per week, must identify with their biological gender either as male or female, and must identify as either African American/Black or White. Participants must have completed a leadership program initiated by their employing organizations within the past five years.

IBM's SPSS Version 27 was used for quantitative analysis and Qualtrics Text iQ feature was used for the qualitative data analysis portion (IBM Corp, 2020; Rohan, n.d.; Qualtrics XM, n.d.). The quantitative analysis portion included preliminary analysis, descriptive statistics, regression analysis testing Hypothesis 1 and 2, and MGLM testing interaction effects for Hypothesis 3. This approach aligned with the majority of quantitative approaches to intersectional research, as the most common and recommended methods were those applying regression in ways that allow for

heterogeneity across intersections, such as regression with interaction effects (Bauer et al., 2021; Else-Quest & Hyde, 2016; Warner, 2008).

The open-ended responses gathered from the LPOM were manually reviewed for verification purposes and analyzed by the Text iQ feature available within Qualtrics. This feature uses machine learning and native language processing to discover patterns and trends across qualitative responses, groups them into themes or topics, and includes a sentiment score, all while allowing researchers the power to override and recommend new themes (Rohan, n.d.; Qualtrics XM, n.d.). There were only four open-ended responses that asked participants to elaborate on their reported outcomes, so I did not have any complications analyzing the qualitative data within Qualtrics.

The findings of this study not only add to the current knowledge regarding intersectionality, but it highlights the experiences of Black women developing their leadership capacities (Collins, 2015; Day et al., 2021; Kwon et al., 2020; Rocco et al., 2014; Rosette et al., 2018; Seo et al., 2017; Sims, 2022; Sims et al., 2022). Although organizations deploy leadership programs to support Black women into leadership roles, there are other factors that may affect those with intersectional identities, such as Black women (Carter & Cisco, 2022; Corrington et al., 2020; Day et al., 2021; Frazier et al., 2017; Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018). The findings of this study expanded the importance of recognizing how intersectional identities can overlap to influence workplace outcomes. Further, the findings can help organizations develop leadership development programs with marginalized groups in mind and help identify other barriers that contradict program goals and negatively impact the outcomes of such initiatives (Flores et al., 2021).

Chapter 4: Results

The purpose of this nonexperimental quantitative study was to examine the impact of psychological safety on leadership program outcomes and whether the impact depended on an individual's intersectional identity, specifically race and gender. I used RQ1 to answer: What is the relationship between psychological safety and leadership program outcomes at the individual and organizational levels? I hypothesized that psychological safety would be positively related to leadership program outcomes at the individual and organizational levels.

I used RQ2 to answer: How would gender and race as intersectional identities moderate the relationship between psychological safety, leadership program outcomes at the individual level, and leadership program outcomes at the organizational level? I hypothesized that race and gender, as intersectional identities, would moderate the relationship between psychological safety and leadership program outcomes such that the relationship between psychological safety and leadership program outcomes at the individual level would have stronger effects when the gender is female, and the race is Black. The relationship between psychological safety and leadership program outcomes at the organizational level would have stronger effects when the gender is female, and the race is Black.

In this study, I used a quantitative approach with significant enhancements, which involved using qualitative techniques to maximize the interpretation of the quantitative data (see Leech & Onwuegbuzie, 2007). Thus, I did not just measure Black women's perceptions of psychological safety and its impact on leadership development outcomes. I also included additional qualitative insights from respondents to deepen understanding

(see Black & Earnest, 2009). In this chapter, I will review the data collection procedure and the results of the study. I will end the chapter with a summary.

Data Collection

I found participants using Amazon's Mechanical Turk, a system that was created by Amazon and turned into a platform where researchers could offer surveys and perform experiments (see Mason & Suri, 2012). Mechanical Turk has become popular over the years because of the many advantages it offers such as accessibility to willing participants (Buhrmester et al., 2011). In addition, the Mechanical Turk samples are more diverse than other samples found on the internet and in academic settings (Buhrmester et al., 2011). Mechanical Turk allows people to be requesters; these are the people who create the task they need workers to complete (Buhrmester et al., 2011). Workers then can select which tasks, also known as HITs, they want to complete and are given compensation to use on their Amazon account based on the task selected (Buhrmester et al., 2011).

The timeframe for data collection was from July 13, 2023, through August 4, 2023. All participants used in this study elected to participate by selecting the HIT. To ensure participants qualified to take the survey, screener questions were asked. These questions ensured all participants were over 18 years of age, U.S. citizens living in the United States, employed full-time in a non-Mechanical Turk position from a single employer that involved at least 35 hours of work per week, identified with their biological gender as female or male, identified as either African American/Black or White, and completed a leadership program initiated and rolled out by their employing

organizations within the past 5 years (see Appendix A). If participants answered any of these questions incorrectly, they were disqualified from the survey.

Throughout the survey, there were four attention check questions that instructed participants on how to answer those questions. Those attention check questions instructed participants on how to answer the questions. For example, "If you are still paying attention, strongly disagree with the following statement: I recently had a fatal heart attack." Participants were eliminated if they answered an attention check question incorrectly. This was to ensure that participants were actually paying attention to the study. In addition, participants were required to enter a random code number that was generated at the end of the survey into their Mturk account before submitting their work. Again, this was to make sure participants were paying attention and to filter out any bots.

The sample that I used for this study included 385 participants. After screening out participants who answered an attention check question incorrectly, did not qualify for the survey, and those who did not enter the correct code, the final sample included 308 participants. This means that 80% of participants were included.

Study Results

Participant Demographics

Of the 308 participants, 31% were Black women, 33% White women, 11% Black men, and 24% White men. The sample varied in age but majority of participants, 46%, were between 26-35 years old, married (94%), heterosexual (60%), and have children (90%). Further, majority of participants worked in the IT industry (44%), have been employed for three to five years (57%), and work in an office/on-site work setting (46%).

Finally, majority of participants, 61%, stated that they completed their leadership development program within the last three to five years (see Table 1).

Table 1*Demographics Frequency and Percentage Statistics*

Demographics		<i>N</i>	%
Race and Gender	White Women	102	33%
	Black Women	96	31%
	White Men	75	24%
	Black Men	35	11%
Age	26-35 Years Old	142	46%
	18-25 Years Old	108	35%
	36+ Years Old	58	19%
Marital Status	Married	290	94%
	Single or Cohabiting or Widowed	18	6%
Sexual Orientation	Heterosexual	186	60%
	Bisexual or Homosexual	122	40%
Education	Bachelor's	220	71%
	Master's	83	27%
	Less than high school or High School	34	1%
Diagnosed Disability	No	193	63%
	Yes	115	37%
Children	Yes	278	90%
	No	30	10%
Religion	Roman Catholic	212	69%
	Hindu	40	13%
	Other	38	12%
	Protestant	18	6%
Industry	IT	134	44%
	Financial	61	20%
	Other	55	18%
	Construction/Manufacturing	36	12%
	Healthcare	22	7%
Years Employed	3-5 Years	174	57%
	6+ Years	89	28%
	Up to 2 Years	48	16%
Annual Income	\$50,001-\$80,000	160	52%
	Up to \$50,000	83	27%
	\$80,001+	65	21%
Years Since LDP Completion	Completed More than 3 years ago	189	61%
	Completed 1-3 years ago	119	39%
Work Environment	Office/On site	142	46%
	Hybrid	123	40%
	Remote	43	14%

Note. Sample included 308 participants. LDP stands for leadership development program.

Assumptions Results

I tested for linearity, homoscedasticity, independence of error terms, and normality assumptions. Residual plots showed points falling into a random display, satisfying the independence of error terms, linearity, and Homoscedascity assumption. The normality assumption was tested by examining the frequency distributions and normal probability plots. Frequency distributions showed a normal bell-shaped curve and the points on the normal probability plots fell along a straight diagonal line, satisfying the assumption of normality.

Preliminary Analysis Results

Scale reliability for the psychological safety measure and the leadership Program Outcomes Measure (LPOM) was assessed via the Cronbach's alpha for each scale. The psychological safety measure had a Cronbach's alpha of 0.87 for this study. This aligned with previous research as this measure was reported to have a Cronbach's alpha range of 0.82 to 0.94 (see Carmeli & Gittell, 2009; Carmeli et al., 2009, 2010; Chen et al., 2014; Edmondson, 1999; Nembhard & Edmondson, 2006).

The LPOM had high Cronbach's alpha values for the two subscales, 0.90 for the individual level outcomes and 0.91 for the organizational level outcomes. Similarly, this aligned with previous research where the Cronbach's alpha for the individual level outcomes was 0.91 and 0.92 for the organizational level items (see Black & Earnest, 2009; Newman et al., 2017). Means, standard deviations, Cronbach's alphas, and the correlation matrix for the variables used in this study can be seen in Table 2. All of the Cronbach's alphas can be seen in the diagonals. All of these values were high indicating that there was high internal consistency. The correlation matrix was examined to look for

possible covariates that could affect the results in the study. As previously mentioned, the collinearity statistics were used as an addition to the theoretical support that was found in previous research.

Age and religion are social identities, just like race and sex, and according to intersectionality theory, these identities can intersect to influence individual outcomes (Bauer et al., 2021; Coles & Paske, 2020; Collins, 1990; Crenshaw, 1989, 1991; Rosette et al., 2018). As for how many years ago the LDP was completed as a covariate, previous studies have shown that the length of time passed can impact outcomes of the study as participant results could have differed because of the of differences in maturation (Shadish et al., 2002). According to the collinearity statistics, age, $r = -.139$, $p = .015$, religion, $r = -.201$, $p = .000$, and how long ago someone completed their leadership development program (LDP), $r = -.130$, $p = .023$, could be covariates for individual level outcomes. There were no covariates found for organizational level outcomes. Due to the collinearity statistics and theoretical support, age, religion, and how long ago someone completed their LDP were controlled for when examining individual level outcomes (see Table 2).

Table 2*Descriptive Statistics*

	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7
1. Psychological Safety	3.7	.49	-						
2. Individual-level Outcomes	3.9	.60	.44**	-					
3. Organizational-level Outcomes	4.0	.49	.47**	.76**	-				
4. Age	2.0	1.0	.07	-.14*	-.08	-			
5. Gender	1.4	.48	.17**	.02	.09	.17**	-		
6. Race	1.6	.50	-.12*	-.05	.05	.075	.16**	-	
7. Religion	3.3	2.5	.06	-.20**	-.06	.00	.10	.03	-
8. Yrs. Since LDP Completion	3.9	1.5	-.09	-.13*	-.10	.11	.00	-.16**	-.06

Note. LDP stands for leadership development program. ** indicates $p < .01$ and * indicates $p < .05$.

Hypotheses Results

Hypothesis 1: Psychological safety will be positively related to leadership program outcomes at the individual level.

Findings showed that there is a significant positive relationship between psychological safety and leadership program outcomes at the individual level after controlling for age, religion, and how long ago someone completed their LDP, $r = .435$, $p = .000$. As such, Hypothesis 1 was supported (Table 3).

Table 3*Correlations Between Controls, PS, and IO*

Variable	1	2	3	4	5
1. Individual Level Outcomes	-				
2. Age	-.216**	-			
3. Religion	.114*	-.160**	-		
4. Years since LDP Completion	-.130**	.149**	.027	-	
5. Psychological Safety	.435**	.001	-.099*	-.089	-

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

When looking at how long ago the LDP was completed, religion, and age alone, they significantly predicted individual level outcomes, $F(3,304) = 6.8, p = .000, R^2$ change = .064. Thus, how long ago the LDP was completed, religion, and age accounted for 6.4% of the variance in individual level outcomes. Once psychological safety was included to the model while controlling for age, religion, and how long ago someone completed their LDP, findings showed that the model significantly predicted individual level outcomes, $F(1,303) = 78.3, p = .000, R^2 = .256, R^2$ change = .192. Thus, psychological safety accounted for 19.2% of the variance in individual level outcomes (see Table 4).

Table 4*Model Testing of Covariates and PS on IO*

Model	R^2	R^2 Change	F Change	$df1$	$df2$	Sig. F Change
1	.064	.064	6.893	3	304	.000
2	.256	.192	78.397	1	303	.000

Note. Model 1 predictors: (constant), Yrs. since LDP completion, religion, and age.

Model 2 predictors: (constant), Yrs. since LDP completion, religion, age, psychological safety. Dependent variable is individual level outcomes.

After controlling for age, religion, and how many years ago the LDP was completed, there was still a significant positive relationship between psychological safety and leadership program outcomes at the individual level, $r = .540$, $p = .000$. When accounting for age, individuals over 35 years old scored significantly lower on LDP individual outcomes than those younger than 35 years old, $B = -.283$, $p = .000$. When accounting for religion, individuals that are Catholic scored significantly higher on LDP individual outcomes than those that are not Catholic, $B = .167$, $p = .011$. Finally, when accounting for how long participants finished their LDP program, there was no significant differences found between those that completed the LDP more than 3 years ago and those that completed the LDP within the last three years, $B = -.026$, $p = .187$. Collinearity statistics, specifically tolerance and VIF, showed no issues with multicollinearity (Table 5).

Table 5*Coefficients and Slopes of Covariates and PS on IO*

Model	Unstandardized B	<i>p.</i>	Tolerance	VIF
(Constant)	1.98	.000		
Age	-.283**	.000	.951	1.052
Religion	.167**	.011	.963	1.039
Yrs. Since LDP Completion	-.026	.187	.968	1.033
Psychological Safety	.540**	.000	.983	1.018

Note. Dependent variable is individual level outcomes. ** indicates $p < .01$ and * indicates $p < .05$.

Hypothesis 2: Psychological safety will be positively related to leadership program outcomes at the organizational level.

Findings showed that there is a significant positive relationship between psychological safety and leadership program outcomes at the organizational level, $r = .466$, $p = .000$. As such, Hypothesis 2 was supported. Collinearity statistics, specifically tolerance and VIF, showed no issues with multicollinearity (Table 6).

Table 6*Correlations between PS and OO*

Variable	Organizational Level Outcomes	Psychological Safety	Tolerance	VIF
Organizational Level Outcomes	-			
Psychological Safety	.466**	-	1.0	1.0

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

Hypothesis 3: Race and gender, as intersectional identities, will moderate the relationship between psychological safety and leadership program outcomes such that: The

relationship between psychological safety and leadership program outcomes at the individual level will have stronger effects when the gender is female, and the race is Black. The relationship between psychological safety and leadership program outcomes at the organizational level will have stronger effects when the gender is female, and the race is Black.

MGLM was utilized to first examine the main effects of race, sex, and psychological safety on individual level outcomes and on organizational level outcomes, while using a Bonferroni correction to aid in the identification of any significant main effects that exist for each outcome variable separately. Findings showed that the Pillai's Trace of the multivariate tests was .250, indicating a significant multivariate effect of psychological safety on the combined DVs after controlling for age, religion, and years since completing LDP, $F(2, 300) = 49.871, p = .000, \text{partial } \eta^2 = .250$. (See Table 7).

When it comes to which DVs were statistically significant, findings showed that there are significant main effects of psychological safety on individual level outcomes, $F(1, 301) = 78.507, p = .000, \text{partial } \eta^2 = .207$, and organizational level outcomes, $F(1, 301) = 89.994, p = .000, \text{partial } \eta^2 = .230$ (see Table 8). Individuals with higher psychological safety reported an increase in both leadership development program individual and organizational level outcomes (See Table 9).

Table 7*Multivariate Effects of PS, Sex, and Race*

Effect		Value	<i>F</i>	Hyp. <i>df</i>	Error <i>df</i>	<i>p</i>	Partial η^2
Intercept	Pillai's Trace	.263	53.547	2	300	.000	.263
	Wilk's Lambda	.737	53.547	2	300	.000	.263
	Hotelling's Trace	.357	53.547	2	300	.000	.263
	Roy's Largest Root	.357	53.547	2	300	.000	.263
Age	Pillai's Trace	.044	6.944	2	300	.001	.044
	Wilk's Lambda	.956	6.944	2	300	.001	.044
	Hotelling's Trace	.046	6.944	2	300	.001	.044
	Roy's Largest Root	.046	6.944	2	300	.001	.044
Religion	Pillai's Trace	.020	3.088	2	300	.047	.02
	Wilk's Lambda	.980	3.088	2	300	.047	.02
	Hotelling's Trace	.021	3.088	2	300	.047	.02
	Roy's Largest Root	.021	3.088	2	300	.047	.02
Year Completed LDP	Pillai's Trace	.001	.175	2	300	.840	.001
	Wilk's Lambda	.999	.175	2	300	.840	.001
	Hotelling's Trace	.001	.175	2	300	.840	.001
	Roy's Largest Root	.001	.175	2	300	.840	.001
Gender	Pillai's Trace	.004	.648	2	300	.524	.004
	Wilk's Lambda	.996	.648	2	300	.524	.004
	Hotelling's Trace	.004	.648	2	300	.524	.004
	Roy's Largest Root	.004	.648	2	300	.524	.004
Race	Pillai's Trace	.025	3.848	2	300	.022	.025
	Wilk's Lambda	.975	3.848	2	300	.022	.025
	Hotelling's Trace	.026	3.848	2	300	.022	.025
	Roy's Largest Root	.026	3.848	2	300	.022	.025
Psychological Safety	Pillai's Trace	.250	49.871	2	300	.000	.25
	Wilk's Lambda	.750	49.871	2	300	.000	.25
	Hotelling's Trace	.332	49.871	2	300	.000	.25
	Roy's Largest Root	.332	49.871	2	300	.000	.25

Note. Age is coded as 0 = younger than 35 years old, 1 = older than 35 years old.

Religion is coded as 0 = not Catholic, 1 = Catholic. Year completed LDP is coded as 0 = within the last three years, 1 = more than 3 years ago. Gender is coded as 0 = male, 1 = female. Race is coded as 0 = Not Black, 1 = Black.

Table 8*Main Effects of PS, Sex, and Race on IO and OO*

Source	DV	Type II SS	df	MS	F	p	Partial η^2
Corrected Model	IO	27.804	6	4.634	17.146	.000	.255
	OO	19.167	6	3.194	17.166	.000	.255
Intercept	IO	14.061	1	14.061	52.027	.000	.147
	OO	19.995	1	19.995	107.449	.000	.263
Age	IO	3.765	1	3.765	13.931	.000	.044
	OO	1.202	1	1.202	6.461	.012	.021
Religion	IO	1.657	1	1.657	6.132	.014	.020
	OO	.436	1	.436	2.344	.127	.008
Year Completed LDP	IO	.040	1	.040	.149	.700	.000
	OO	.001	1	.001	.003	.954	.000
Gender	IO	.204	1	.204	.755	.386	.003
	OO	.001	1	.001	.005	.945	.000
Race	IO	.096	1	.096	.357	.551	.001
	OO	1.046	1	1.046	5.622	.018	.018
Psychological Safety	IO	21.217	1	21.217	78.507	.000	.207
	OO	16.747	1	16.747	89.994	.000	.230
Error	IO	81.347	301	.270			
	OO	56.014	301	.186			
Total	IO	4881.729	308				
	OO	4974.132	308				
Corrected Total	IO	109.151	307				
	OO	75.180	307				

Note. IO stands for individual level outcomes. OO stands for organizational level

outcomes. Age is coded as 0 = younger than 35 years old, 1 = older than 35 years old.

Religion is coded as 0 = not Catholic, 1 = Catholic. Year completed LDP is coded as 0 =

within the last three years, 1 = more than 3 years ago. Gender is coded as 0 = male, 1 =

female. Race is coded as 0 = Not Black, 1 = Black.

Table 9*Parameter Estimates*

DV	Parameter	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>		Partial η^2
						Lower Bound	Upper Bound	
IO	Intercept	1.671	.248	6.746	.000	1.183	2.158	.131
	Age 0	.294	.079	3.732	.000	.139	.450	.044
	Religion 0	-.162	.065	-2.476	.014	-.291	-.033	.020
	Yr. Comp. LDP 0	.024	.063	.385	.700	-.099	.148	.000
	Gender 0	-.056	.064	-.869	.386	-.182	.070	.003
	Race 0	.037	.063	.597	.551	-.086	.161	.001
	PS	.558	.063	8.860	.000	.434	.682	.207
	OO	Intercept	1.975	.206	9.610	.000	1.571	2.379
OO	Age 0	.166	.065	2.542	.012	.038	.295	.021
	Religion 0	-.083	.054	-1.531	.127	-.190	.024	.008
	Yr. Comp. LDP 0	-.003	.052	-.057	.954	-.105	.099	.000
	Gender 0	-.004	.053	-.069	.954	-.108	.101	.000
	Race 0	.123	.052	2.371	.018	.021	.226	.018
	PS	.496	.052	9.486	.000	.393	.599	.230

Note. PS stands for psychological safety. IO stands for individual level outcomes. OO stands for organizational level outcomes. Age is coded as 0 = younger than 35 years old, 1 = older than 35 years old. Religion is coded as 0 = not Catholic, 1 = Catholic. Year completed LDP is coded as 0 = within the last three years, 1 = more than 3 years ago. Gender is coded as 0 = male, 1 = female. Race is coded as 0 = Not Black, 1 = Black.

To test the interaction, dummy variables were created for race (1= African American/Black, 0= White) and gender (1= Female, 0= Male). I also created a three-way interaction term (Race \times Gender \times Psychological Safety) and used a Bonferroni correction to identify any significant interaction effects that existed for each outcome variable separately. Findings showed that the Pillai's Trace of multivariate tests was .400, indicating a significant multivariate interaction effect of Race*Sex*psychological safety on the combined DVs after controlling for age, religion, and years since completing LDP, $F(2, 299) = .659, p = .051, \text{partial } \eta^2 = .400$ (see Table 10).

When it comes to which DVs were significant, findings showed that there is significant interaction effect of Sex*Race*PS on organizational-level outcomes, $F(1, 300) = 19.800, p = .032, \text{partial } \eta^2 = .300$ (see Table 11). There was no significant interaction effect found for Sex*Race*PS on individual-level outcomes, $F(1, 300) = .070, p = .792, \text{partial } \eta^2 = .000$ (see Table 11). Black women with higher psychological safety reported an increase in organizational level outcomes, but not individual level outcomes (see Table 12). Thus, Hypothesis 3 was partially supported.

Table 10*Multivariate Effects*

Effect		Value	<i>F</i>	Hyp. <i>df</i>	Error <i>df</i>	<i>p</i>	Partial η^2
Intercept	Pillai's Trace	.258	51.850	2	299	.000	.258
	Wilk's Lambda	.742	51.850	2	299	.000	.258
	Hotelling's Trace	.347	51.850	2	299	.000	.258
	Roy's Largest Root	.347	51.850	2	299	.000	.258
Age	Pillai's Trace	.043	6.796	2	299	.001	.043
	Wilk's Lambda	.957	6.796	2	299	.001	.043
	Hotelling's Trace	.045	6.796	2	299	.001	.043
	Roy's Largest Root	.045	6.796	2	299	.001	.043
Religion	Pillai's Trace	.020	3.088	2	299	.047	.020
	Wilk's Lambda	.980	3.088	2	299	.047	.020
	Hotelling's Trace	.021	3.088	2	299	.047	.020
	Roy's Largest Root	.021	3.088	2	299	.047	.020
Yr. Comp. LDP	Pillai's Trace	.001	.186	2	299	.831	.001
	Wilk's Lambda	.999	.186	2	299	.831	.001
	Hotelling's Trace	.001	.186	2	299	.831	.001
	Roy's Largest Root	.001	.186	2	299	.831	.001
Sex	Pillai's Trace	.002	.366	2	299	.694	.002
	Wilk's Lambda	.998	.366	2	299	.694	.002
	Hotelling's Trace	.002	.366	2	299	.694	.002
	Roy's Largest Root	.002	.366	2	299	.694	.002
Race	Pillai's Trace	.002	.273	2	299	.761	.002
	Wilk's Lambda	.998	.273	2	299	.761	.002
	Hotelling's Trace	.002	.273	2	299	.761	.002
	Roy's Largest Root	.002	.273	2	299	.761	.002
PS	Pillai's Trace	.251	50.066	2	299	.000	.251
	Wilk's Lambda	.749	50.066	2	299	.000	.251
	Hotelling's Trace	.335	50.066	2	299	.000	.251
	Roy's Largest Root	.335	50.066	2	299	.000	.251
Sex*Race*PS	Pillai's Trace	.400	.659	2	299	.051	.004
	Wilk's Lambda	.996	.659	2	299	.051	.004
	Hotelling's Trace	.401	.659	2	299	.051	.004
	Roy's Largest Root	.401	.659	2	299	.051	.004

Note. PS stands for psychological safety. Age is coded as 0 = younger than 35 years old,

1 = older than 35 years old. Religion is coded as 0 = not Catholic, 1 = Catholic. Year

completed LDP is coded as 0 = within the last three years, 1 = more than 3 years ago.

Gender is coded as 0 = male, 1 = female. Race is coded as 0 = Not Black, 1 = Black.

Table 11*Interaction Effects of Sex*Race*PS on Individual and Organizational Level Outcomes*

Source	DV	Type III SS	df	MS	F	p	Partial η^2
Corrected Model	IO	27.823	7	3.975	14.662	.000	.255
	OO	19.349	7	2.764	14.853	.000	.257
Intercept	IO	12.960	1	12.960	47.806	.000	.137
	OO	19.355	1	19.355	104.002	.000	.257
Age	IO	3.961	1	3.691	13.614	.000	.043
	OO	1.114	1	1.114	5.983	.015	.020
Religion	IO	1.668	1	1.668	6.153	.014	.020
	OO	.457	1	.457	2.455	.118	.008
Year Completed LDP	IO	.039	1	.039	.142	.706	.000
	OO	.001	1	.001	.007	.933	.000
Sex	IO	.198	1	.198	.730	.394	.002
	OO	.077	1	.077	.415	.520	.001
Race	IO	.006	1	.006	.021	.885	.000
	OO	.072	1	.072	.389	.533	.001
PS	IO	21.220	1	21.220	78.277	.000	.207
	OO	16.892	1	16.892	90.765	.000	.232
Sex*Race*PS	IO	.019	1	.019	.070	.792	.000
	OO	.182	1	.182	19.800	.032	.300
Error	IO	81.328	300	.271			
	OO	55.831	300	.186			
Total	IO	4881.729	308				
	OO	4974.132	308				
Corrected Total	IO	109.151	307				
	OO	75.180	307				

Note. PS stands for psychological safety. IO stands for individual level outcomes. OO stands for organizational level outcomes. Age is coded as 0 = younger than 35 years old, 1 = older than 35 years old. Religion is coded as 0 = not Catholic, 1 = Catholic. Year completed LDP is coded as 0 = within the last three years, 1 = more than 3 years ago. Gender is coded as 0 = male, 1 = female. Race is coded as 0 = Not Black, 1 = Black.

Table 12*Parameter Estimates*

DV	Parameter	<i>B</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% <i>CI</i>		<i>Partial η</i> ²
						Lower Bound	Upper Bound	
IO	Intercept	1.644	.250	6.562	.000	1.151	2.137	.126
	Age	.293	.079	3.690	.000	.137	.449	.043
	Religion	-.163	.066	-2.481	.014	-.292	-.034	.020
	Yr. Since Comp. LDP	.024	.063	.377	.706	-.100	.147	.000
	Sex	.068	.080	.854	.394	-.089	.225	.002
	Race	-.015	.105	-.145	.885	-.222	.191	.000
	PS	.559	.063	8.847	.000	.435	.683	.207
	Sex*Race*PS	-.009	.034	-.264	.792	-.076	.058	.000
OO	Intercept	2.067	.208	9.960	.000	1.659	2.475	.248
	Age	.161	.066	2.446	.015	.031	.290	.020
	Religion	-.085	.054	-1.567	.118	-.192	.022	.008
	Yr. Since Comp. LDP	-.004	.052	-.084	.933	-.107	.098	.000
	Sex	.043	.066	.644	.520	-.088	.173	.001
	Race	-.054	.087	-.623	.533	-.226	.117	.001
	PS	.499	.052	9.527	.000	.396	.602	.232
	Sex*Race*PS	.280	.028	.990	.032	.083	.270	.300

Note. PS stands for psychological safety. IO stands for individual level outcomes. OO stands for organizational level outcomes. Age is coded as 0 = younger than 35 years old, 1 = older than 35 years old. Religion is coded as 0 = not Catholic, 1 = Catholic. Year completed LDP is coded as 0 = within the last three years, 1 = more than 3 years ago. Gender is coded as 0 = male, 1 = female. Race is coded as 0 = Not Black, 1 = Black.

Qualitative Results

As for the qualitative analysis portion, the Qualtrics Text iQ feature, which uses machine learning and native language processing to discover patterns and trends across qualitative responses, groups them into themes or topics, and includes a sentiment score, was utilized to analyze the open-ended questions for the LPOM (Rohan, n.d.; Qualtrics XM, n.d.).

To start, a manual review of the data for verification purposes and to increase familiarity was done. Following that, I allowed Qualtrics Text iQ to populate themes and modified those as needed. A full summary of the patterns and themes that emerged can be found in table 13.

The themes that were identified for individual-level outcomes were communication, development or refinement leadership skills, and development or refinement of interpersonal skills. As one participant stated:

“This was my first time in the leader role, and I was struggling until I was able to participant in a leadership development program. Through the program, I learned how to be mindful of my leadership and communication style because I have learned that they do not work the same across my direct reports. Now I am able to flex my leadership and communication style based on which direct report I was working with. I do not think I would have been able to do that without this amazing experience”.

The themes that were identified for organizational-level outcomes were Innovation, management of risk or change, business awareness, and organizational skills. Another

participant stated how their leadership development program experience has helped them on an organizational level:

“Through my program experience, I learned how to see the bigger picture. I had trouble with this before and have been told it was one of the reasons that I was not being considered for senior leadership roles. I was able to meet with influential mentors and learn how to gauge a problem from multiple perspectives. I was also able to learn how to have a future focus, so I am able to foresee any possible risk and be in a better place to manage it”.

Table 13

A Summary of Final Patterns and Themes

Outcome Area	Patterns	Themes
Individual-level outcomes	<ul style="list-style-type: none"> • Creative/Strategic Thinking. • Networking. • Exposure to New Ideas • Conflict Resolution (Mediation/Facilitation) • Time Management • Work Ethic • Self-Awareness • Emotional Intelligence & Appreciation of Differences • Positive Mindset/Attitude • Self-Confidence 	<ul style="list-style-type: none"> • Communication. • Develop/Hone Leadership Skills. • Interpersonal skills.
Organizational-level outcomes	<ul style="list-style-type: none"> • Efficiency & Productivity. • Resource Utilization & Allocation. • Improved Business Decision Making & Problem Solving. • Efficient Use of Time. • Collaboration/Building Network of Contacts. 	<ul style="list-style-type: none"> • Innovation. • Risk/Change Management. • Business Awareness/Acumen. • Organizational Skills.

Summary

This study aimed to answer two research questions. The first research question inquired about the relationship between psychological safety and leadership program outcomes at the individual-level and organizational-level. It was hypothesized that psychological safety will be positively related to leadership program outcomes at the individual-level. It was also hypothesized that psychological safety will be positively related to leadership program outcomes at the organizational level. Findings showed that psychological safety did have a positive relationship with leadership program outcomes at the individual-level, supporting Hypothesis 1. Findings also showed that psychological safety did have a positive relationship with leadership program outcomes at the organizational level, supporting Hypothesis 2.

The second research question this study aimed to answer is how gender and race as intersectional identities moderate the relationship between psychological safety, leadership program outcomes at the individual-level, and leadership program outcomes at the organizational-level? It was hypothesized that race and gender, as intersectional identities, will moderate the relationship between psychological safety and leadership program outcomes such that: The relationship between psychological safety and leadership program outcomes at the individual-level will have stronger effects when the gender is female, and the race is Black. The relationship between psychological safety and leadership program outcomes at the organizational level will have stronger effects when the gender is female, and the race is Black.

Findings showed a significant multivariate interaction effect of Race*Sex*Psychological Safety on organizational-level outcomes, where Black women

with higher psychological safety reported an increase in organizational level outcomes, but not individual level outcomes. As such, Hypothesis 3 was partially supported. The following chapter will cover the interpretation of findings in detail, discuss any limitations of the study, offer future recommendations, and cover implication for social change.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to examine the relationship between perceptions of psychological safety and leadership development outcomes at the individual and organizational levels and whether such a relationship differs based on an individual's intersectional identity, specifically race and gender. I used a quantitative method approach with significant enhancements (i.e., the use of qualitative techniques to maximize the interpretation of the quantitative data). As such, I gained additional insights from respondents that I used for deeper understanding of how intersectionality morphs the experiences and realities of Black women as a marginalized group. I followed the suggestions of previous researchers regarding the lack of quantitative studies focusing on intersectionality despite the impact it has on everyday experiences, especially those that are work-related (see Carter & Cisco, 2022; Lanier et al., 2022; Rosette et al., 2016, 2018; Seo et al., 2017).

Interpretation of Findings

As previously mentioned, I examined the relationship between psychological safety and leadership program outcomes at the individual and organizational levels. After controlling for age, religion, and how many years ago the LDP was completed, findings showed that psychological safety did have a significant positive relationship with leadership program outcomes at the individual-level, supporting Hypothesis 1. Further, open-ended responses revealed individual level outcomes to be improved communication, developing/honing leadership skills such as creative thinking, and improving interpersonal skills such as increasing self-confidence and self-awareness.

Controlling for age and year since program completion was important for the study's internal validity. Specifically, maturation is a threat to internal validity where the changes in the outcome variable are due to normal developmental processes operating within the subject as a function of time (Shadish et al., 2002). For this study, one of the inclusion criteria was that participants must have participated in a leadership development program initiated by their employing organizations within the past 5 years. The amount of time of 5 years that I specified could have been a threat to internal validity because program outcomes could be due to a result of just maturing or getting more comfortable into the role.

Another possibility was that participant results could have been different due to how long ago they completed the leadership program. For instance, a participant that underwent a leadership program 5 years ago could have differed from the participant who took the program one to 3 years ago. This could be due to the COVID-19 pandemic and how it has changed how and where employees work. To remedy the maturation threat, I controlled for age and number of years since participating in leadership programs to ensure it is not affecting results (Shadish et al., 2002). I did not control for work environment because it was not found to be a covariate.

There were no covariates found for organizational level outcomes, but findings showed that psychological safety had a significant positive relationship with leadership program outcomes at the organizational level, supporting Hypothesis 2. As for organizational level outcomes, open-ended responses focused on innovativeness, business awareness and acumen such as resource identification and use, improved organizational skills, and management of risk and change. Further, respondents' comments indicated

that such outcomes were utilized to increase organizational efficacy, ultimately benefiting the organization.

The findings showed that as individual perceptions of psychological safety increases, they are more likely to benefit from leadership development programs on both an individual and organizational level. These findings are corroborated in previous research. Psychological safety has been repeatedly linked to adult learning and developmental outcomes, similar to those expected from leadership programs (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020; Newman et al., 2017; Woodson, 2020). However, the attainment of such outcomes requires a great deal of interpersonal risk; thus, individuals must feel safe taking risk without fearing any negative repercussions to their career or self-image (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Newman et al., 2017).

At the individual level, having psychological safety means that individuals to feel safe, fearless, encouraged to recognize their capabilities and unique skillsets, and are not afraid to experiment or make mistakes due to the negative repercussions to their careers (Edmondson, 1999; Edmondson & Lei, 2014; Frazier et al., 2017; Higgins et al., 2022; Kahn, 1990; Kwon et al., 2020). At the organizational level, psychological safety has been repeatedly linked to organizational performance in terms of meeting organizational goals and successfully implementing organizational change (Baer & Frese, 2003; Cataldo et al., 2009). Psychological safety, then, activates reflection, cognitions, and unique thinking abilities for individuals that lead to positive outcomes such as improved

performance and expansion of knowledge and skills (Higgins et al., 2022; Kwon et al., 2020).

As for how gender and race as intersectional identities moderated the relationship between psychological safety, leadership program outcomes at the individual-level, and leadership program outcomes at the organizational level, findings showed a significant multivariate interaction effect of Race*Sex*Psychological Safety on organizational level outcomes, but not individual level outcomes. Thus, the Hypothesis 3 was partially supported. In other words, the effect psychological safety had on organizational level outcomes was impacted by the intersectional identities of being both Black and female. On the other hand, the effect psychological safety had on individual level outcomes was not impacted by one's gender or race, which was surprising to find because individual and organizational level outcomes were highly correlated.

Nonetheless, these findings are somewhat consistent with intersectionality theory. This theory posits that the effects of intersectional identities cannot be separated because intersectional individuals live at the intersection of larger oppressive systems and they may experience unique forms of oppression that are not captured through single-axis approaches (Carter & Cisco, 2022; Coles & Paske, 2020; Rosette et al., 2018).

Black women often experience intersectional discrimination, meaning that they face discrimination and biases based on both their race and gender (Bauer et al., 2021; Carter & Cisco, 2022; Coles & Paske, 2020; Davis & Maldonado, 2015; Rosette et al., 2018). In many cases, these biases can create hostile, unsupportive, and discriminatory work environments, making it more difficult for Black women to speak up, share their ideas, and take on leadership roles (Carter & Cisco, 2022; Dobbin et al., 2011; Frazier et

al., 2017; Kwon et al., 2020). This can lead to feelings of isolation and self-doubt and can ultimately hinder their career advancement and development (Carter & Cisco, 2022; Frazier et al., 2017; Kwon et al., 2020; Lanier et al., 2022; Rosette et al., 2016, 2018). Since the workplace experiences of Black women are riddled with experiences of intersectional discrimination, psychological safety is vital for them in order to feel safe taking risks without repercussions to their careers.

Finding a non-significant interaction effect of race*Sex*Psychological Safety on individual level outcomes could have been due to various external factors, such as the lack of alignment of LDPs to the needs of marginalized groups such as Black women. Previous findings showed that generic leadership programs that create a one-size-fits-all approach neglect the needs of marginalized participants and limits the overall program impact (Kimball et al., 2021). Failing to provide leadership development programs that result from organizational policies that support not only qualified but also a diverse employee group has been said to impact the effectiveness of leadership programs, especially for Black women (Beckwith et al., 2016). Further, the lack of identifying and aligning measurable program objectives based on the participant's needs was also found to impact the effectiveness of such programs for this marginalized group (Kimball et al., 2021).

Finally, lack of representation in such programs impacts Black women's ability to see themselves in leadership roles and limits their professional growth, and programs that do not take into account the unique experiences and challenges faced by Black women may not provide the necessary tools and skills for them to succeed in leadership roles (Carter & Cisco, 2022; Corrington et al., 2020; Day et al., 2021; Frazier et al., 2017;

Hoobler et al., 2018; Kwon et al., 2020; Moorosi et al., 2018). As such, representation, considering unique experiences, understanding participant needs, and aligning them to program objectives can increase learning and positive behavioral changes on the job for Black women (Kimball et al., 2021). Such findings can be used to explain why intersectional identity had no impact on the relationship between psychological safety and individual level outcomes.

Limitations of the Study

The first limitation of this study was that the focus was on Black women, and the study lacks generalizability to the general population. The second limitation of this study was the focus on gender and race as intersectional identities. However, there are other intersectional identities that could have been explored because various identities can intersect or overlap to shape individual experiences (Rosette et al., 2018). I focused on the relationship between psychological safety and leadership program outcomes and whether such a relationship was dependent on gender and race as intersectional identities, this limitation became a valid necessity. As for the focus on Black women, my goal was not to examine how Black women differ from other marginalized groups such as Hispanics and Asians. Instead, I focused on Black women because the current literature has rendered them invisible, and it is vital that future studies start to highlight the plights of this marginalized group.

The third limitation of this study was that I made no effort to examine the types of leadership development programs that respondents underwent. Respondents were only asked to indicate what elements of leadership development programs they underwent. The choices given were training, feedback, assessments, coaching, mentoring,

networking, job/stretch assignments, and action learning. Not having any additional insights on respondent's program design, delivery method, or even having an understanding of their company's leadership culture has impacted the ability to gain deeper insights that could have explained why Black women were benefiting on an organizational level, but not on an individual level.

The fourth limitation was that the sample for this study was composed of individuals who signed up to participate in internet-based research. This could have affected the results significantly. Different findings could be found if the sample was non-internet based. The internet-based participants differ from non-internet-based participants in the following ways: the internet-based participant pool could have been more attracted to the study title, and they could have been motivated by the compensation provided for their participation when compared with a non-internet-based participant pool. Additionally, participants could have been more motivated to lie being that this study asked them about how they have grown on an individual and organizational level after undergoing a leadership development program. Participants could have answered based on what they deemed socially acceptable and not reality. There was no social desirability measure included in this study, therefore, motivation to lie could have been a possible explanation for these findings.

These specific differences are important because they would sway the participants to respond very differently. For instance, being that an internet sample could be more motivated to complete the study, to lie on their answers, or are just simply attracted to the title of the study could have inflated the findings, leading us to find significant effects when in reality there are none. Therefore, instead of finding a significant positive

relationship between psychological safety and individual level outcomes, it is possible that a nonsignificant relationship between psychological safety and individual level outcomes would have been found. As such, future studies are needed to test these hypotheses in different samples such as within organizations and should also include a social desirability measure.

The fifth limitation was that respondents could have seen no value in taking the survey seriously and they may have rushed through the questions to finish the survey in a short amount of time. Respondents could have also not been truthful when answering the study criteria questions to ensure their payment. A measure that was taken was to follow-up with questions at the end of the survey that are similar to the criteria questions given in the beginning of the survey, this ensured that participants answers corroborated with their inclusion criteria answers. By ensuring that participants were giving similar answers to their inclusion criteria question answers, I was able to identify dishonest participants. Another measure that was taken to ensure participants took the study seriously was to offer them \$1 in compensation. Offering compensation to participants allows participants to have an incentive and motivation to answer the questions as truthfully as possible. Future studies should follow a similar approach to ensure high quality data from internet samples.

Recommendations

In this study, I used an internet sample, and it is possible that different results could have been found with a non-internet sample. For instance, the internet-based sample could have been more attracted to the study title, and they could have been motivated by the compensation provided for their participation when compared with a

non-internet-based participant pool. Future studies are needed to test these hypotheses in different samples such as within organizations and should also include a social desirability measure.

I used a quantitative approach with significant enhancements (i.e., the use of qualitative techniques to maximize the interpretation of the quantitative data). This method is preferable for additional insights from respondents to gain a deeper understanding of how intersectionality morphs the experiences and realities of Black women (Leech & Onwuegbuzie, 2007). I conducted this study because researchers suggested using mixed-methods or quantitative studies to examine intersectionality to expand the understanding and close the current gap in the research. I recommend that future studies continue using mixed-methods or quantitative designs when examining intersectionality.

Race and gender as intersectional identities were my focus in this study. However, I recommend that future researchers examine other intersectional identities such as age and sexual orientation because they can intersect or overlap to shape individual experiences in a different way than race and sex. Just as investigating other intersectional identities is important, so is investigating other factors that may impact leadership development program outcomes. The type of leadership development activities included in the program may have a significant impact on outcomes. For instance, previous studies have reported that mentoring has been found to be more effective, just not for Black women because traditional mentoring approaches do not respond to the needs stemming from the multidimensionality of Black women's social identity (Lanier et al., 2022). As

such, it is recommended that future studies investigate the effectiveness of the different types of leadership development activities for Black women.

Implications

Within organizations, gender and race issues have long been solid forces for social change (Cortina et al., 2011; Eagly & Chin, 2010; Hebl et al., 2020; Rosette et al., 2018). The findings of this study contribute to social change by providing real-life, real-world perceptions of Black women developing leadership capacities and gave a voice to a group of people who have always been muted and gone unnoticed (Eagly & Chin, 2010). The findings of this study helped increase the understanding of intersectionality and how social identities intersect or overlap to shape individual experiences and social inequities (Collins, 2015; Rosette et al., 2018). Further, these findings can help inform organizations on how to best develop Black women and support their leadership journey (Beckwith et al., 2016; Carter & Cisco, 2022; Day et al., 2021; Lanier et al., 2022; Seo et al., 2017). The benefits can also extend beyond Black women because it can result in more diverse and inclusive leadership teams, which are associated with improved organizational performance and innovation (Higgins et al., 2022; Kwon et al., 2020).

Finally, this study's contribution to social change aligns with Walden University's mission of providing professionals the opportunity to transform as scholar-practitioners to effect positive social change (Walden University, 2016). Further, Walden University (2016) envisions its graduates applying their degree to solutions of critical societal changes to advance the greater global good, which was the goal of this study. This research did not just highlight the realities of Black women when it comes to developing their leadership capacity, but it gave them a voice since they have always been muted and

gone unnoticed (Eagly & Chin, 2010). Thus, the contributions of this proposed study provide positive social change that can advance the greater global good.

Conclusions

Leadership development programs have been popular over the years due to their effectiveness in helping build skillsets and behaviors at the individual and organizational levels, which enable individuals to become effective leaders (Beckwith et al., 2016; Black & Earnest, 2009; Kwon et al., 2020; Northouse, 2022; Wallace & Zaccaro, 2021). However, leadership development programs require a great deal of interpersonal risk and necessitate an environment where individuals have psychological safety (Day et al., 2021; Frazier et al., 2017; Kwon et al., 2020; Newman et al., 2017). This is more apparent for Black women because their intersectional identities expose them to unique barriers that are not shared with other groups (Day et al., 2021; Edmondson & Lei, 2014; Frazier et al., 2017; Hu-Chan, 2020; Kwon et al., 2020; Newman et al., 2017).

Psychological safety was found to be positively related to individual and organizational level outcomes. However, after shifting to an intersectional focus of race and sex, the findings changed. Gender and race as intersectional identities had an effect on the relationship between psychological safety and leadership program outcomes at the organizational level, but not on the individual level. For Black women, leadership development programs are not helpful in helping them increasing self-confidence, creative thinking, or improving interspersal skills. Yet, they seemed to be effective in helping Black women improve their management and leadership skills, improve their business decision making, and learn how to use business resources.

The findings of this study highlighted the importance of having an intersectional focus because social identities can overlap to shape different experiences. In addition, the importance of creating leadership development programs that are mindful of intersectional needs is further highlighted through the findings of this study. Even though leadership development programs have been dubbed as popular and highly favored solutions due to their effectiveness, this study has shown that the effectiveness is dependent on how well the program can cater to intersectional needs. As such, when it comes to developing leadership development programs for Black women, organizations should be mindful of their needs when developing such programs. This would not solely benefit Black women, but it can also result in more diverse and inclusive leadership teams, which are associated with improved organizational performance and innovation (Higgins et al., 2022; Kwon et al., 2020).

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Appendix A: Eligibility Criteria

- 1) Are you a US citizen living in the US?
 - a. Yes
 - b. No
- 2) Are you at least 18 years old?
 - a. Yes
 - b. No
- 3) Are you employed full-time in a steady non-Mechanical Turk position from a single employer that involves at least thirty-five hours per week?
 - a. Yes
 - b. No
- 4) Do you identify with your biological sex as male or female?
 - a. Yes
 - b. No
- 5) Do you identify as either African American/Black or White?
 - a. Yes
 - b. No
- 6) Have you completed a leadership development program that was initiated and rolled out by your employing organizations within the past five years.
 - a. Yes
 - b. No
- 7) If you answered yes to the previous question, how long ago did you complete the leadership development program?
 - a. 1 year ago
 - b. 2 years ago
 - c. 3 years ago
 - d. 4 years ago
 - e. 5 years ago
 - f. Other
- 8) Please pick the best choice that explains your work environment while you were completing your leadership development program:
 - a. In office/on site
 - b. Hybrid
 - c. Remote

- 9) What types of developmental programs were included in your leadership development program? Please select all that apply:
- a. Training
 - b. Feedback
 - c. Assessments
 - d. Coaching
 - e. Mentoring
 - f. Networking
 - g. Job/Stretch Assignments
 - h. Action Learning
 - i. Other: _____

Appendix B: Debrief

Dear Participant,

The point of this research is to understand how a psychologically safe work environment and your gender and race as intersectional identities affect your leadership development program outcomes. Previous studies have shown that intersectional identities can influence the way we, and others, perceive and react to things. They have also shown that a psychologically safe work environment is important for any individual. I am interested in understanding how a psychologically safe work environment and your gender and race as intersectional identities can affect your ability to build leadership capacity. In other words, if a psychologically safe work environment is important for an individual's leadership capacity, it is even more important some individuals because of the unique experience stemming from their intersectional identities, such as being both Black and a woman.

Thank you for your participation.

You have now completed the survey. You may return and record your work in Mechanical Turk by entering the random code that was given to you.

Appendix C: Demographics

- 1) What is your age?
 - a. 18-25
 - b. 26-35
 - c. 36-45
 - d. 46-55
 - e. 56-69
 - f. 70+

- 2) What is your biological sex?
 - a. Female
 - b. Male

- 3) What is your race?
 - a. African American/Black
 - b. Caucasian/White

- 4) What is your relationship status?
 - a. Single
 - b. Married
 - c. Separated
 - d. Divorced
 - e. Widowed
 - f. Cohabiting with romantic partner

- 5) Do you have children?
 - a. Yes
 - b. No

- 6) In what industry do you work?
 - a. Financial
 - b. IT
 - c. Government and Public Administration
 - d. Healthcare
 - e. Legal
 - f. Construction and manufacturing
 - g. Retail
 - h. Media and Telecommunications
 - i. Real estate
 - j. Hospitality
 - k. Other: _____

- 7) What is your highest level of education?

- a. High school diploma
 - b. Some college but no degree
 - c. Associate degree
 - d. Bachelor's degree
 - e. Master's degree or above
 - f. Other: _____
- 8) What is your sexual orientation?
- a. Straight
 - b. Bisexual
 - c. Gay
 - d. Lesbian
 - e. Queer
 - f. Asexual
 - g. Other: _____
- 9) Do you have a diagnosed disability?
- a. Yes
 - b. No
- 10) What is your religion?
- a. Protestant
 - b. Roman catholic
 - c. Mormon
 - d. Orthodox
 - e. Jewish
 - f. Muslim
 - g. Buddhist
 - h. Hindu
 - i. Atheist
 - j. Agnostic
 - k. Prefer not to say
 - l. Other: _____
- 11) How many years have you been employed with your organization?
- a. Less than 1 year
 - b. 1-2
 - c. 3-5
 - d. 5-7
 - e. 8-10
 - f. 10+
- 12) What is your current job level?
- a. Entry level
 - b. Associate

- c. Management
- d. Director
- e. Executive

- 13) What is your annual income?
- a. Under \$10,000
 - b. \$10,001 - \$30,000
 - c. \$30,001 - \$50,000
 - d. \$50,001 - \$80,000
 - e. \$80,001 - \$100,000
 - f. Over \$100,001

Appendix D: Psychological Safety Measure

Instructions: Please indicate your degree of agreement with the following items using the scale presented below.

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

1. If I make a mistake at work, it is often held against me. (*) ____
2. In my organization, I am able to bring up problems and tough issues. ____
3. In my organization, I am sometimes rejected by others for being different. (*) ____
4. It is safe to take a risk in my organization. ____
5. It is difficult to ask others at my organization for help. (*) ____
6. No one at my organization would deliberately act in a way that undermines my efforts. ____
7. My unique skills and talents are valued and utilized in my organization. ____

Note: (*) = reverse coded items

Appendix E: Permission to Publish The Psychological Safety Measure

Your reach out to Prof. Edmondson

[REDACTED]

Tue 1/30/2024 4:19 PM

To:Ominia Hamad [REDACTED]

Cc:Edmondson, Amy [REDACTED]

Dear [REDACTED]

Thank you for reaching out to professor Edmondson and your enthusiasm in this field of research. Your email has been forwarded to me and I'm more than happy to follow up.

The psychological safety surveys are in the public domain and when properly referenced can be used by you.

Additionally, based on professor Edmondson's work, we have developed The Fearless Organization scan. You can test the seven question questionnaire for measuring psychological safety for free on the website:

<https://fearlessorganizationscan.com/engage/free-personal-scan>

For teams and organizations there are specific instruments available to measure the perceived levels of psychological safety.

I know you've already done your research, but If you need any assistance on running a survey for scientific purposes through our platform (for free) in the future, please let me know.

Kindest regards,

[REDACTED]