



BREAKING BARRIERS: STRATEGIES OF BIWOC OVERCOMING IMPOSTOR PHENOMENON IN ONLINE PROGRAMS

Carol Rogers-Shaw	University of Dayton, Dayton, USA	Crogersshaw1@udayton.edu
Corinne Brion	University of Dayton, Dayton, USA	Cbrion1@udayton.edu
Cindy McMullen*	University of Dayton, Dayton, USA	Cbrion1@udayton.edu
Colissa Irving	University of Dayton, Dayton, USA	Brogdenc1@udayton.edu
Megan Burden-Cousins	University of Dayton, Dayton, USA	Burdencousinsm1@udayton.edu

* Corresponding author

ABSTRACT

Aim/Purpose	In the United States, where educational access is shaped by the intersecting forces of race and gender, the expansion of online doctoral education presents both new opportunities and enduring inequities. This study investigated how doctoral students who identify as Black, Indigenous, and Women of Color (BIWOC) enrolled in online doctoral programs experience the impostor phenomenon (IP) and how their social networks and institutional supports influence these experiences.
Background	While online education has expanded doctoral accessibility, BIWOC remain underrepresented in these programs and disproportionately experience academic marginalization. National data reveal that women of color represent less than 12% of doctoral degree recipients in the U.S., with even fewer advancing into academic leadership. IP among BIWOC is compounded by racialized gender stereotypes, isolation, and limited culturally affirming support.
Methodology	Using a phenomenological qualitative approach, this study conducted semi-structured interviews with 13 doctoral students who identify as BIWOC at a United States midwestern primarily white institution to explore their lived experiences and the role of social networks in navigating IP. Interview data were

Accepting Editor Allyson Kelley | Received: February 28, 2025 | Revised: May 25, 2025 |
Accepted: June 3, 2025.

Cite as: Rogers-Shaw, C., Brion, C., McMullen, C., Irving, C., & Burden-Cousins, M. (2025). Breaking barriers: Strategies of BIWOC overcoming impostor phenomenon in online programs. *International Journal of Doctoral Studies*, 20, Article 8. <https://doi.org/10.28945/5552>

(CC BY-NC 4.0) This article is licensed to you under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/). When you copy and redistribute this paper in full or in part, you need to provide proper attribution to it to ensure that others can later locate this work (and to ensure that others do not accuse you of plagiarism). You may (and we encourage you to) adapt, remix, transform, and build upon the material for any non-commercial purposes. This license does not permit you to use this material for commercial purposes.

	coded using thematic analysis, guided by intersectionality and impostor phenomenon theory.
Contribution	This study shifts the focus from in-person academic spaces to the underexplored terrain of online doctoral education, offering practical and theoretical insight into how BIWOC navigate structural and psychological barriers in virtual learning environments.
Findings	Participants reported that family, peers, faculty, and institutional relationships were critical in helping them overcome IP. However, the lack of BIWOC representation, microaggressions, and institutional biases often reinforced feelings of self-doubt.
Recommendations for Practitioners	To support BIWOC in online doctoral programs, institutions should develop structured cohort mentorship programs, increase faculty diversity, and better implement culturally responsive pedagogy.
Recommendations for Researchers	Future research should explore IP among other marginalized doctoral students (e.g., LGBTQ+, first-generation, disabled students) and investigate the effectiveness of specific institutional interventions for reducing IP in online education.
Impact on Society	Addressing systemic biases and the IP in doctoral education can contribute to greater representation of BIWOC in academia and leadership, fostering a more equitable and inclusive higher education landscape.
Future Research	Further studies should analyze how different types of social networks (e.g., professional organizations, online communities) influence BIWOC's doctoral success, as well as explore institutional policy changes that improve retention and inclusion.
Keywords	impostor phenomenon, impostor syndrome, BIWOC, BIPOC, doctoral study, intersectionality

INTRODUCTION

Before the 19th century, higher education was available to white upper-class men with limited or no access for women (Wilder, 2014). White women entered higher education institutions in the 19th century, but women who identified as Black, Indigenous, and Women of Color (BIWOC) were excluded, mainly until post-Civil War (Gasman, 2007; Wilder, 2014). However, Title IX (prohibiting gender discrimination) allowed women to pursue academic goals in most educational institutions (Crenshaw, 2015). Rooted in elite white male ideology, the historical foundation of higher education has produced a system that privileges dominant narratives, making it challenging for diverse perspectives, particularly for BIWOC.

Although online education offers accessibility and flexibility in the United States, racial and gender inequities persist in digital learning platforms. How can online doctoral programs adapt to foster equitable and empowering academic experiences for marginalized students? This paper explores the intersection of race and gender inequalities in influencing the impostor phenomenon (IP) among BIWOC enrolled in online doctoral programs in the U.S., emphasizing the importance of social and institutional support in overcoming these challenges.

Doctoral programs are increasingly accessible through online education. However, students who identify as BIWOC face unique sociocultural barriers that significantly impact their academic journeys. These barriers often contribute to the IP – a psychological experience of self-doubt despite evi-

dent success (Clance & Imes, 1978). Completing a doctoral program is a challenging educational endeavor, particularly for BIWOC who must not only meet the rigorous academic requirements but must also attempt to fit into an environment where white male norms and structures continue to dominate. They often experience increased stress and feelings of inadequacy due to racial and gender bias and cultural norms that can emphasize caretaker roles for women rather than professional and leadership roles, contributing to experiences of impostorism (Burt, 2024; Cope-Watson & Betts, 2010; Evans, 2021; Haskins et al., 2019; Pretorius et al., 2019; Rogers-Shaw et al., 2024). While the landscape of graduate education has diversified, BIWOC students continue to encounter racial and gender biases, stereotype threats, microaggressions and a lack of representation in academia (Chakraverty, 2019; Dortch, 2016; McGee et al., 2019; Simon, 2020), particularly in leadership positions (Burt, 2024). This study examined how race and gender inequalities intersect to shape experiences of IP among BIWOC enrolled in online doctoral programs in the U.S., highlighting the role of social and institutional support in navigating these challenges.

These experiences heighten IP, leading to emotional distress, decreased academic confidence, and higher attrition rates (Chakraverty, 2013; Jones et al., 2023). IP cannot be diagnosed as a single category, like anxiety, lack of self-confidence, or depression, because it includes a range of characteristics. For instance, self-doubt is temporary, while IP is persistent and intense (Clance & Imes, 1978).

The United States Census Bureau's (2023) Report on Educational Attainment reveals that 14% of the population has earned advanced degrees, which has doubled over the past decade. One reason may be that universities have made graduate programs more accessible for nontraditional students. Traditionally, White males predominantly obtained higher degrees, but recently, educational institutions have offered online programs that provide more access to those managing careers and families. Advancements in technology have allowed for more innovative educational opportunities, offering more flexibility for individuals with multiple life demands (Akojie et al., 2019).

Educational accessibility has expanded, yet sociocultural barriers, such as discriminatory biases against certain cultures and differential treatment for others, a lack of diverse cultural role models, stereotype threats, and microaggressions (Ashlee et al., 2017; Chakraverty, 2013; McGee et al., 2019; Simon, 2020), continue to tarnish educational institutions. Doctoral BIWOC frequently faces IP challenges stemming from racial and gender barriers (Chakraverty, 2013; Haskins et al., 2019). The high attrition rates underscore the experiences of BIWOC doctoral students (Shapiro et al., 2017). Despite an increase in BIWOC in postgraduate studies in 2022 (Rasheem et al., 2018), doctorates were awarded to only 11.5% of Asian women, 4% of Hispanic/Latina women, 3% of Black/African American women, and 0.11% of Alaskan Native and Native American women (Nila, 2024). Additionally, Black women's college graduation rates are significantly lower than those of White women, making BIWOC less likely to earn doctorates. Additionally, American cultural norms that emphasize caretaking roles for women do not support the pursuit of terminal degrees; society sends women mixed signals about gender role expectations, making it difficult for them to internalize their successes despite achievements (Cope-Watson & Betts, 2010). Research examining BIWOC experiences with IP, where their intersectionality marginalizes them in doctoral programs, will contribute to the existing literature on IP.

Doctoral students frequently experience the IP, particularly those who identify as BIWOC (Chakraverty, 2013, 2019; Martin, 2018; Simon, 2020), as they are often invisible or barely present in higher education faculties and positions of leadership (Burt, 2024), so BIWOC students lack models of success. They can quickly begin to feel that they do not belong (Vaughn et al., 2020). Research has revealed that 65.9% of doctoral, medical, and dental degrees granted to Black students are women, yet only 5.4% of doctoral degrees overall are awarded to Black students (American Association of University Women, 2020); IP is one factor that affects student success. Students who identify as BIWOC are often "intensely aware of their presence as academic minorities, which influences how they navigate academic environments" (Rogers-Shaw et al., 2024, p. 45), and IP can limit their academic success (Edwards, 2019; Simon, 2021), highlighting a significant problem in academia.

While existing literature addresses online education and IP separately, few studies explore how race and gender intersect to shape IP experiences in U.S. online doctoral programs. This phenomenological study addresses that gap by centering the voices of BIWOC doctoral students and examining how their intersecting identities contribute to persistent feelings of impostorism. The researchers employed the social influence theory framework to analyze their behaviors and attitudes. This research offers recommendations on leveraging social relationships to aid them in overcoming IP.

LITERATURE REVIEW

Understanding the nature of IP in doctoral study is essential. Chakraverty (2020a) identified five factors that can evoke feelings of impostorism in doctoral students. First, when students are acknowledged for their achievements, they may question whether they deserve such accolades. They also experience IP when they compare themselves to their peers, and while they recognize skills and talents in their colleagues, they tend to focus on their weaknesses and deficits; the need to improve certain skills, such as academic writing, further heightens the sense of being an impostor. Despite achieving some success, doctoral students feel inadequate when they begin tackling new coursework and unfamiliar ideas. Finally, the need to seek assistance amplifies IP for doctoral students as it underscores what they do not know or cannot accomplish. Doctoral program administrators, faculty, dissertation committee advisors, and department mentors who are aware of these triggers can better support doctoral students (Chakraverty, 2020a) by acknowledging their feelings of IP and reassuring them that they belong in the doctoral program. Openly discussing the challenges faced by all students can counter feelings of isolation and allow students to develop support networks of faculty, staff, and peers, which can lay a foundation for overcoming IP.

Developing both faculty and peer mentoring programs is an effective way to address doctoral student IP when the mentoring process focuses on building student strengths, fostering acceptance of imperfection, and implementing strategies to alleviate anxiety (Chakraverty, 2020b; Simon, 2020). Self-esteem can help individuals overcome the IP (Cokley et al., 2018). Recent studies on the IP revealed a gap in the literature regarding race and gender (Cokley, 2024a, 2024b). Cokley et al. (2024, p. 407) emphasized the “need for reconceptualized racialized impostor phenomenon as well as the need to establish new impostor phenomenon measures, conduct more quantitative research with diverse samples, and create culturally tailored interventions”. Mentoring is particularly important for students who do not see successful role models of their gender and race within academia (Simon, 2020).

THE ROLE OF RACE AND GENDER IN DEVELOPING THE IMPOSTOR PHENOMENON

Muradoglu et al. (2022) suggested that underrepresented women often feel like impostors in fields where success seems reserved for only exceptionally gifted individuals. A woman’s experience frequently hinges on the intersection of stereotypes related to her ethnic, racial, and gender identities. Having an acute awareness of gender stigma has been shown to increase the IP among women and affect their view of their success; female students are more likely to attribute excellent grades to their putting significant effort into their work while men more frequently assume their ability leads to achieving superior grades (Cokley et al., 2015). Bano and O’Shea (2023) examined the behaviors of minority female graduate students in primarily white institutions. They argued that a lack of belonging and stereotyping leads to IP due to feelings of otherness, first-generation status, minority stress status, stereotype threat, and racial identity.

Women in leadership often feel stereotype threats if their behaviors do not fit the cultural norm of warmth and communality. Fraenza (2016, p. 230) examined the role of social influence, where “students may feel pressured in a traditional setting because of the social cues of peers and instructors, as well as institutional norms”. Both genders can experience IP, but women also contend with structural barriers that limit their potential and prolong IP (Clance, 1985). Nori et al. (2020) revealed that doctoral students experience IP, characterized by initial self-doubt, fear of being exposed as frauds, and

influenced by their diverse backgrounds and early academic challenges. Over time, these feelings can evolve, and some students reframe their struggles as transformative experiences that promote personal growth and resilience. Research indicates that institutional factors, including mentorship, peer support, time limitations, and a nurturing academic environment, are crucial in intensifying or alleviating impostor feelings (Chakraverty, 2013, 2019; Nori et al., 2020). The findings suggest that addressing these factors can help cultivate a healthier academic culture.

The intersection of systemic racism, gender norms, and broader societal expectations shapes the IP among students who identify as BIWOC. While men in racially marginalized groups experience the IP in academia due to structural exclusion (Cokley, 2024a), BIWOC face a unique ‘double bind’ – the pressure to conform simultaneously to racialized and gender expectations at the intersection of racial and gender identities (Bird, 2020; Dortch, 2016). This paradox compels individuals to juggle conflicting roles: being assertive can lead to being labeled as “angry” or “aggressive,” while remaining silent may further entrench marginalization. This double bind, rooted in institutional and societal norms, illustrates that interpersonal pressure is not merely an internal struggle but is shaped by ongoing external influences. For many BIWOC doctoral students, these pressures extend beyond the campus environment – factors such as financial instability, caregiving duties, and cultural expectations often heighten the emotional challenges of feeling accepted in academic settings (Collins & Bilge, 2020; Radin, 1990). To fully grasp this complex experience, it is essential to adopt an intersectional perspective that considers race, gender, class, and other social identities. Furthermore, distance learning also presents unique challenges.

ONLINE LEARNING

Designing online learning platforms accommodates various learning styles for a relatively homogenous population instead of focusing on ethnic or cultural backgrounds. Distance learning has offered flexibility and reduced barriers to education (Ross et al., 2018). Approximately 14% of students enroll in online classes, and there is a growing number of nontraditional students (Burke, 2019). Online learning expands access and provides flexibility (K. Gardner & Leary, 2023). Burke (2019) defined nontraditional students as those over 25 who juggle multiple life responsibilities, such as work, family, and community service obligations.

Nevertheless, non-traditional learners come from diverse backgrounds and bring valuable experiences that can enrich the educational environment for everyone involved. Ross et al. (2018) stated that frequent evaluation of online learning is necessary to ensure access and address support challenges due to rapid technological changes. Digital tools and curricula can offer numerous advantages that enhance the learning experience, yet without moderation, the student experience may vary significantly (Ross et al., 2018). K. Gardner and Leary (2023) pointed out that online learning faces several obstacles, including student characteristics, living conditions, and learning environments. Student characteristics include mental wellness, motivation, belonging, and language differences. Living conditions relate to access to technology, family dynamics, discrimination, and cultural factors. The learning environment encompasses classroom interactions, racism, course design, and relationships with instructors and peers. Holzl (1999) asserted that a constructionist learning design can resolve diversity and inclusion challenges in online platforms when appropriately implemented. He argued that knowledge, built through social experiences, can be integrated with new material to enhance the learning experience.

Many scholars have argued that an online learning environment with supportive mechanisms, self-efficacy options, and community support contributes to the academic success of female doctoral students (Bloomberg, 2022; Rovai, 2001). Access and flexibility are crucial because nontraditional students can achieve classroom objectives wherever internet access is available. Bloomberg (2022) posited that multicultural students require a pedagogy that empowers and inspires learners. However, online learning can be an isolating experience for many due to minimal peer interaction (Bloomberg,

2022; Rovai, 2001). Conversely, in a cross-sectional survey design, Fraenza (2016) compared the levels of IP in nontraditional and traditional students using the Clance Impostor Phenomenon Scale. They found that traditional students experience IP more significantly than nontraditional online students. Fraenza (2016) could not determine why traditional students exhibit higher levels of IP based on the study's structure. The literature compares face-to-face and online modalities while examining whether IP is more substantial in either format. However, the current literature does not explore online doctoral students and how emotional barriers may hinder their success, nor how social networks can support these students.

SOCIAL INFLUENCE THROUGH VARIED RELATIONAL NETWORKS

Doctoral students' networks of existing family, friends, and colleagues can play a crucial role in tackling individual challenges. These networks can be expanded and strengthened during doctoral research. Relationships with institutions and peers within a cohort can evolve throughout doctoral studies, impacting the achievement of academic, research, and social goals (K. Gardner & Leary, 2023)

Family, friend, and work colleague relationships

Research suggests that early family relationships influence IP. Lack of parental encouragement during adolescence may increase feelings of fraudulence, which often intensify during doctoral studies due to feelings of inferiority and incompetence. Although not directly connected to IP, studies on parenting styles show that supportive and encouraging parents are more common in resource-rich families. Regardless of parents' background, the crucial factor is their ability to foster a positive inner narrative in their children (Letourneau & Joschko, 2013).

The literature suggested that leveraging close external relationships for support can be a highly effective strategy for overcoming or reducing IP. Sanford et al. (2015) found a connection between low IP levels in women leaders with strong relationships. Respondents indicated that connections with mentors, family, and other women in leadership roles boosted their confidence and provided validation (Sanford et al., 2015). Much of the support from close relationships discussed in the literature centers on providing students with resources and capital. However, many underrepresented students' close external relationships may not offer guidance in overcoming barriers, accessing information, or providing financial support for academic success (St. John et al., 2010). S. K. Gardner and Gopaul (2012) found that part-time doctoral students received the most support from close external relationships, not through knowledge or capital, but through family members taking on household responsibilities to lighten their load. Additionally, participants noted that supportive workplaces that offered necessary flexibility and independent team members helped reduce their workload and facilitated completing their doctoral programs (S. K. Gardner & Gopaul, 2012). Just as workplace support is beneficial, postsecondary institutional support plays an important role.

Institutional support

Although many universities have implemented Diversity, Equity, and Inclusion (DEI) initiatives, implicit biases, stereotypes, resistance, and reluctance to engage in DEI efforts persist, making these policies seem superficial (Kim et al., 2023; Singleton, 2021). In both academic and workplace environments, DEI emphasizes the incorporation of diverse voices and perspectives into policies and practices, ensuring fair treatment for all members of the organization, providing equal opportunities for advancement, allocating equal resources to all participants, and respecting and welcoming individuals into the community (Beach & Segars, 2022). LePeau et al. (2019) suggested that fostering change requires establishing three processes: mobilizing by building and prioritizing, implementing support systems, and institutionalizing changes within the cultures and practices of institutions. Transforming the culture to adopt a DEI mindset necessitates profound shifts that challenge the status quo. However, meaningful change can create institutional support for students facing IP, particularly when faculty support is meaningful.

Faculty support

As students advance through their academic careers, graduate classes tend to become smaller, with increased emphasis on building relationships with peers and mentors. Nevertheless, there may be insufficient gender and racial representation, especially among mentors (Simon, 2020). Consequently, some students might feel isolated and unheard, lacking the necessary support to face stereotype threats and leaving them to deal with microaggressions independently (McGee et al., 2019). Forming strong connections with peers and faculty is essential for completing graduate work. However, some university cultures may embrace a color-blind mentality, which effectively undermines the experiences of others and prioritizes the dominant culture, thereby diluting diverse scholarly voices (Akojie et al., 2019).

Many BIWOC face stereotype threats from faculty members, leading to underperformance or overperformance to avoid confirming negative stereotypes. This psychological phenomenon triggers stress and anxiety and can hinder performance (Ashlee et al., 2017). Microaggressions are often unintentional behaviors or comments that convey negative messages to marginalized groups. These messages have a psychological effect on individuals, potentially causing chronic stress and diminished self-efficacy. The consequences of these behaviors can create unnecessary distractions, reduce participation, and lower student confidence (Ashlee et al., 2017) while also heightening feelings of IP. However, peer networks can assist students in overcoming obstacles.

Peer support through a cohort model

Cohort doctoral programs, whether designed structurally within the program or the result of individual initiative, enhance mentoring, build community, provide collaborative learning, and increase the dissertation completion rate by boosting persistence and fostering alliances (Dennis & DiMatteo-Gibson, 2022; Holmes et al., 2010; Mullen, 2003; Santicola, 2013; Webber et al., 2022). Various cohort models exist, including mentoring cohorts, dissertation writing cohorts, cross-discipline cohorts, and study group cohorts where students and/or faculty unite to tackle obstacles to student success (Carter-Veale et al., 2016; Dennis & DiMatteo-Gibson, 2022; Holloway & Alexandre, 2012; Holmes et al., 2010; Webber et al., 2022). While the purposes of cohorts may differ, the shared goal for all is to collaborate with others in a supportive environment to enhance individual achievement.

One benefit of the cohort model is the potential for integrated peer mentoring and peer learning, where students can overcome isolation, relieve stress, reduce frustration, increase motivation, and catalyze success. Peer learning and mentoring lead to more significant knowledge transfer (Holloway & Alexandre, 2012; Webber et al., 2022) and higher dissertation completion rates as isolation decreases (Santicola, 2013). Another positive effect is the community building among doctoral students; working collaboratively as a cohort (Holloway & Alexandre, 2012; Holmes et al., 2010) helps create a support network that allows them “to generate ideas collectively [and] engage in joint inquiry by sharing ideas and experiences which fosters dialogue from multiple perspectives” (Santicola, 2013, p. 256).

Cohorts can be especially effective for BIWOC students as they work to overcome IP. Research shows that marginalized students often develop IP due to feeling like outsiders in university settings, particularly during their transition into higher education. Several studies suggested addressing IP through cohort-based programs rather than focusing on individual change (Hewertson & Tissa, 2022; Meadhbh Murray et al., 2023). Students gain from connecting with peers with similar backgrounds and identities to form their cohorts and provide essential support (Arnold, 2021). While there is diverse research on IP, there is a dearth of information regarding the experiences of BIWOC doctoral students, especially in online programs. This study aimed to address that gap by examining these experiences to enhance the understanding of IP’s implications for BIWOC postgraduate students in an online context.

Furthermore, examining these experiences through the perspective of social influence theory provides a more in-depth understanding of how external relationships can mitigate or exacerbate impostor feelings for BIWOC individuals in academic settings. This approach suggests that the research findings can guide institutions in better supporting these students and improving their academic achievements. Cohorts can be particularly beneficial for BIWOC students as they strive to overcome impostor syndrome, demonstrating the impact of social influence theory.

THEORETICAL FRAMEWORK

Kelman's (1958) social influence theory explains how individuals adjust their behavior in response to their social environments, emphasizing that "one person's attitudes, cognitions, or behaviors are changed through the actions of another" (Cialdini & Griskevicius, 2010, p. 385). This framework is particularly relevant to understanding the IP, as individuals often internalize group norms and expectations, shaping identity and self-perception (Crano, 2000).

For BIWOC doctoral students, interactions with family members, peers, and institutional agents profoundly influence their sense of academic legitimacy. These social networks can either intensify feelings of self-doubt or offer critical support that affirms identity and bolsters resilience (Yang et al., 2021).

Specifically, this study highlights how family dynamics, institutional expectations, and peer-group interactions shape self-concept. Students may adopt familial values, conform to peer expectations, or internalize institutional norms – often navigating these influences under the pressures of race and gender (Kelman, 1974; Tsarenko et al., 2013; Yang et al., 2021).

METHODS

This qualitative study used a phenomenological approach to explore the experiences of IP in BIWOC doctoral students in an online program. The research study was approved and adhered to the university's Institutional Review Board guidelines. The research questions were: (1) How is the intersectionality of race and gender associated with barriers to success for doctoral students who identify as BIWOC, and (2) how is social influence related to reducing perceived barriers for online BIWOC doctoral students facing IP?

PHENOMENOLOGY

Phenomenology examines "the common meaning for several individuals of their lived experiences of a concept or a phenomenon" (Creswell, 2012, p. 76). The researchers gathered data for this study through interviews with 13 participants who described their lived experiences (Creswell, 2012; Hammersley & Atkinson, 1996).

The phenomenon that is the foundation of the study is IP, and the population of participating individuals is online doctoral students who identify as BIWOC at a mid-sized midwestern university in the United States. Phenomenology tells the stories of those who encounter similar circumstances, and their narratives enhance comprehension of what it means to live that reality. The aim is to break down these events to find the foundational components contributing to IP. In this case, the researchers' positionality contributed to their ability to relate to the study participants and accurately describe their experiences.

RESEARCHERS' POSITIONALITY

The researchers are two instructors and three doctoral students in an online cohort model doctoral program in leadership. All the researchers are women. There is one woman of color, two first-generation students, one new American, and one individual with a disability. The students all completed their doctoral studies while working full-time. Three researchers are in education, one in business,

and one in a health-related workplace. They range in age from 35 to 65. They have all experienced IP at different times and in various settings.

The ‘in-betweener’ role of the researchers’ positionality creates a situation where the researchers occupy a space that is neither fully an insider nor a complete outsider within the study context and participants. This positionality is characterized by a complex interplay of shared and disparate experiences, identities, and perspectives (Chhabra, 2020). The researchers conducted the study in the Education Doctorate (EdD) program, where they worked and studied, which allowed them to share characteristics and experiences with the study population and granted them the status of insiders. As insiders, the researchers gained participant trust and comfort because the women under study knew or had heard of the researchers. However, the researchers also have unique identities, skills, and life circumstances not shared by the participants, which positions them as outsiders in certain respects. Their outsider status added an element of objectivity to the data analysis, allowing them to observe and interpret the participants’ experiences with a degree of detachment, reducing the influence of shared assumptions or insider perspectives that could bias the interpretation of the findings. To avoid over-rapport and dismissal of significant nuance due to familiarity (Brayboy & Deyhle, 2000), through the iterative process of self-reflection and group discussion of the data, the researchers attempted to maintain an in-betweener position (Brion & Rogers-Shaw, 2022; Rogers-Shaw et al., 2022) where they remained “intellectually poised between familiarity and strangeness” (Hammersley & Atkinson, 1996, p. 112). The researchers’ insider/outsider/in-betweener positionality strengthened the study and proved beneficial in this research site.

SETTING

The study was set in an online Doctorate in Education (EdD) program in leadership offered by a medium-sized private university with a religious affiliation in the midwestern United States. The program incorporated both synchronous and asynchronous elements for students attending virtually. It utilized Canvas as its web-based Learning Management System (LMS), supported by 2U. This American education technology company assisted with program design, course creation, instructor training, and student counseling. The program holds mandatory weekly 90-minute synchronous classes via Zoom, including lectures, small group work, class discussions, and interactive activities. Additionally, students were required to complete coursework asynchronously each week. They engaged in readings, interacted with peers by responding to guiding questions on discussion boards, participated in group projects, and worked on various writing assignments.

The institution offers 14-week courses during three annual terms – spring, summer, and fall. The leadership curriculum emphasizes social justice, connecting research with practice to develop leaders who positively influence their organizations. The nature of the leadership curriculum highlighted its social justice focus, connecting research and practice that focuses on developing leaders who will positively influence their organizations. Students moved through the coursework as a cohort, taking two courses per term for nine terms over three years, although some students chose to work at a slower pace. Students started an action research dissertation in practice in their fourth term and defended their initial and final proposals. The students in the program met the selection criteria for this study.

PARTICIPANTS

The project utilized a convenient sampling (Creswell, 2012) from a current graduate program, where the university demographics indicated that over half of the students enrolled in the program were females from various sociocultural backgrounds. The program coordinator issued an electronic call to all female students who identify as BIWOC, inviting them to participate and explaining that the study aimed to explore the experiences of marginalized female postgraduate students registered in an online program who have faced IP. Participation criteria included female doctoral students identified as Black, Indigenous, or People of Color. They were willing to engage in an in-depth interview to share their experiences with IP. IP was defined before the interviews to ensure the participants understood

the aim and purpose of the study (see Appendix). Nineteen students expressed interest, but ultimately, six withdrew. The researchers collected data through interviews about the lived experiences of 13 online doctoral students who identify as BIWOC. Participants who identified as Black or African American came from diverse socioeconomic backgrounds, ranged in age from 31 to 76, and had an average age of 45. Table 1 provides an overview of participant demographics, highlighting the diversity in age, race, profession, and geographic location among the 13 BIWOC doctoral students interviewed for this study.

Table 1. Demographics

Variable	Category	N
Gender	Female	13
Race	African American/Black (various identifiers) *	13
Age	20–29	1
	30–39	4
	40–49	3
	50–59	4
	70–79	1
Sexual Orientation	Heterosexual	7
	Lesbian	1
	Declined to Answer	5
Religion	Christian (all denominations) **	10
	Declined to Answer	1
	Non-Practicing	2
Socioeconomic Status	Upper Class	1
	Upper Middle Class	3
	Middle Class	6
	Lower Class	2
	Working Class Poor	1
Location	Mid-Atlantic	2
	Midwest	7
	Northeast	1
	South	1
	Southwest	1
	West	1
Career Field	Education (including non-profit)	8
	Clinical Counseling	1
	Global Consulting	1
	Law	1
	Project Management	1
	Technology	1

Notes: *n=number*

* Participants self-identified using varied racial labels including ‘African American,’ ‘Black,’ and ‘Black non-Hispanic.’

** Includes Baptist, Methodist, Pentecostal, Protestant, Non-Denominational Christian, and other Christian-affiliated responses.

DATA COLLECTION AND ANALYSIS

This study used the Clance Impostor Phenomenon Scale (Clance, 1985) as a verbal questionnaire to guide the initial discussion with the participants and establish a shared understanding of IP. Rather than formally administering the survey, the researchers and the students discussed elements of the Clance IP Scale, such as the fear of not doing well at the start of a task, of not living up to expectations, of being identified as lacking knowledge or talent, of viewing success as the result of luck or error rather than skill or talent, of seeing others as more accomplished and doubting the ability to continue succeeding, among other IP traits. The BIWOC participants shared their experiences related to identified elements of IP, establishing their understanding of IP, and satisfying the researchers that they had experienced or were experiencing IP. Participants often linked their feelings of IP to their minority status in academia.

The researchers conducted interviews via Zoom and created transcripts using Zoom's transcription feature. The researchers downloaded the transcripts from Zoom, transferred them to Word documents, edited them for clarity, and password-protected them. The researchers omitted filler words, false starts, and unnecessary repetitions from the transcripts to ensure they were clear, comprehensible, and coherent while accurately reflecting the participants' spoken words. An inductive coding approach was used for data analysis, allowing the participants' dialogue to guide the researchers in portraying their lived experiences (Creswell, 2012). After individually coding the data, the researchers compared their analyses. They then performed an iterative narrative analysis of the phenomenological data. Transcript and coding triangulation were employed to identify and refine common themes and outliers.

In the narrative analysis process (Smith & Osborn, 2008), the researchers reviewed the transcripts and searched for themes, focusing on where and how they emerged and their significance. They incorporated subthemes and took detailed notes that included claims followed by supporting paraphrases and verbatim quotes. Table 2 presents themes and subthemes from the thematic analysis. The researchers coded the transcripts based on initial themes (Smith & Osborn, 2008). This iterative analysis identified critical findings, although the study did have some limitations.

Table 2. Themes and subthemes from the thematic analysis of participant interviews

Theme	Subthemes	Description
Family and Cultural Foundations	Intergenerational resilience Cultural expectations and pride	Family history and values provided motivation and framed participants' pursuit of doctoral goals.
Peer and Cohort Support	Affinity group formation Academic collaboration Informal mentoring	Cohort-based relationships helped reduce isolation, build confidence, and facilitate success.
Faculty Influence	Affirming support Flexibility with assignments Representation and validation	Faculty responses directly influenced participants' sense of belonging and legitimacy.
Workplace and Colleague Support	Encouragement from supervisors Shared struggles with colleagues	Support from professional networks contributed to emotional resilience and motivation.
Role Models and Representation	Visibility of BIWOC in leadership Inspirational female mentors	Seeing successful women of color helped participants envision their success.
Spirituality and Self-Perception	Religious grounding Self-affirmation practices	Internal values and spiritual beliefs provide emotional strength to confront impostorism.

Theme	Subthemes	Description
Intersectional Barriers	Double bind dynamics Racial and gender microaggressions Time and caretaking demands	IP was exacerbated by overlapping social pressures and societal expectations.

Note. Themes were derived from inductive coding of interviews with 13 BIWOC doctoral students in an online cohort model.

LIMITATIONS

The study faced several limitations. Most notably, the small sample size restricts the generalization of the findings (Mwita, 2022). Although efforts were made to include participants from diverse age groups, socioeconomic backgrounds, professions, and geographic regions, expanding the study to multiple institutions with varied cultural contexts could enhance future research. Another limitation involves the use of self-reported data, which may be affected by social desirability bias or inaccuracies (Hesse-Biber, 2016). To address this, the researchers used follow-up questions and requests for examples to increase reliability.

Qualitative research is inherently subjective and heavily influenced by the researcher's interpretation. To address this issue, the researchers used inclusive language in their recruitment efforts to appeal to participants with diverse experiences, ensuring that those with varying levels of self-reported impostor phenomenon were represented in the interviews.

Being part of the same institution and program, the researchers held an "in-between" status with the participants. This fostered trust but could also have led to potential blind spots or an overly familiar understanding of the institutional culture (Mwita, 2022). Future studies conducted by external researchers or at different institutions might provide alternative perspectives.

The Clance Impostor Phenomenon Scale was discussed as a conversational guide rather than a formal assessment tool, which limited the ability to compare participants' responses quantitatively. A mixed-methods approach using validated instruments alongside interviews would enhance future data triangulation.

Finally, Kelman's social influence theory supported the analysis of personal behavioral change; however, it may not fully address the evolving nature of the intersectional and structural dimensions of students who identify as BIWOC (Crano, 2000). Despite these limitations, the study's trustworthiness was reinforced through inclusive recruitment, triangulation, and reflective data analysis.

TRUSTWORTHINESS

In this phenomenological qualitative study, the researchers employed various strategies to ensure the study's credibility and rigor. Participant data were anonymized to encourage open sharing, and interview triangulation supported the consistency and depth of interpretation. Two researchers independently coded the data and engaged in an iterative comparison process until they reached thematic saturation. This collaborative approach minimized bias and enhanced the dependability and authenticity of the findings.

FINDINGS

These findings reinforce prior research on the importance of culturally responsive networks in reducing impostor feelings among marginalized doctoral students (Chakraverty, 2020b; Sanford et al., 2015) and expand the literature by centering on the virtual context of online education. Participants identified meaningful support from family, friends, faculty, colleagues, and cohort peers as essential to overcoming IP. Consistent with Kelman's (1958) social influence theory, particularly the concepts of compliance, identification, and internalization, they also emphasized the value of BIWOC role

models in shaping their academic self-concept. Family influence emerged as a foundational factor, offering a starting point for understanding how various support systems shape the identities and experiences of BIWOC doctoral students.

FAMILY SUPPORT

The family connected with participants by offering support through affirmation and serving as motivation to help them achieve their goals. Tameka's family inspired her to pursue a doctoral degree, dedicating her research to her late grandparents. She shared, "I went to their grave site this past summer and read my dissertation to them because I did that for them, for people who were not allowed to go to school. I understand the privilege I have in accessing education as I do." Life experiences shape who we become.

Nia attributed her strength to her family's foundation and her experiences growing up. She stated, "Whenever I feel the impostor phenomenon rising in response to any form of racial hatred or negative experience, I am always reminded of who I am, what I have been taught, and the strength of the women in my family, along with the stories I have heard about their perseverance through racial hatred over the years." Nia's statement aligns with Kelman's (1958, p. 58) assertion that "internalization occurs when an individual accepts influence because the induced behavior is congruent with his value system".

Participants recognized the significance of family support when striving to achieve challenging goals. Lalia advised BIWOC students to join the program to engage with their communities and those sharing the journey for assistance. She emphasized that support systems are vital for academic success, especially as a parent. Family support can also enhance feelings of belonging. Lalia expressed, "My family is very supportive, and they are proud of what I am doing, which makes me feel like I am making a difference." This sense of pride from family can inspire them to overcome or diminish feelings of IP. These findings are consistent with S. K. Gardner and Gopaul's (2012) study, which found that family support can help mitigate feelings of impostorism. Further expanding the study of effective support networks that contribute to BIWOC student success includes evaluating the presence and contributions of friends and colleagues.

FRIEND AND COLLEAGUE SUPPORT

Relationships with friends and colleagues in the workplace are also vital sources of support for women of color navigating IP. Trusted peers and coworkers who understand their challenges provide validation, encouragement, and practical advice. Tameka shared the toll of academic pursuits, stating that support from close relationships is crucial for perseverance: "There are days when you just want to say, you know what? I do not want to do this anymore. This is tough. Just hearing encouragement from those who genuinely care about you and feeling uplifted makes a significant difference."

Vivian highlighted the importance of regular socializing with a colleague from another institution. She remarked, "We get together periodically for lunch. We did that during the school year and continued it during breaks. We are maintaining this practice, and I can say that the support has been significant for me." These social connections helped normalize feelings of inadequacy, as shared experiences remind individuals that they are not alone on their journeys. Furthermore, these statements reinforce the idea that identifying with a group or person they admire fosters acceptance and a sense of belonging (Kelman, 1958). Faculty are also inspiring figures in doctoral study, and their support can significantly impact BIWOC student success.

FACULTY SUPPORT

The support provided by faculty appears to be another essential factor in mitigating IP for doctoral BIWOC. When faculty members are flexible with due dates, actively cultivate a sense of belonging, and acknowledge the unique contributions of these students, it boosts their confidence. All participants were working full-time, which added to their workload. Yasmin explained, "Anytime I can get

an assignment extension, it helps. When professors understand this, it is supportive and reduces our stress and feelings of IP as we balance studies, full-time work, and families.” Vera added, “The fact that most of our professors allow us to submit [an assignment] early and review it before we turn it in is helpful; their feedback has been invaluable.”

Positive mentorship and open communication with professors were linked to decreased feelings of isolation and IP, as illustrated by Gloria, who stated, “Professors are nice and supportive ... always engaging in those welcoming activities, even though we all know each other by now. They ask, ‘Tell me about yourself. Tell me what you do.’ This helps to show interest in who you are and what you like.”

Beverly highlighted the connection between the feelings related to IP and the instructors’ attitudes. She stated, “Sometimes the impostor phenomenon is tied to the professor. What is this person’s demeanor like? How do they communicate with you? How do they respond in certain situations? Most of my professors have been very supportive and understanding.” However, responses from others can also contribute to IP. Support from academic authority figures helped counterbalance internalized doubts and reinforced a sense of academic legitimacy. According to Gloria, “When you have professors who say, ‘No, you belong here,’ I think that makes a huge difference because they would know, having gone through this process themselves.” As the literature suggests, a lack of diverse faculty representation and a color-blind academic culture can contribute to feelings of isolation and stereotype threat among BIWOC (McGee et al., 2019; Simon, 2020). In line with these findings, participants in this study emphasized that supportive, flexible, and affirming faculty interactions helped reduce feelings of the impostor phenomenon and reinforced their sense of belonging. Cohort peers can also be a source of affirmation for a student’s place within doctoral study, and developing friendships with peers can enhance feelings of belonging.

COHORT PEER SUPPORT

In line with literature highlighting the cohort model’s effectiveness in reducing isolation and promoting academic success through peer learning and community building (Holloway & Alexandre, 2012; Santicola, 2013), the findings from this study indicate that for BIWOC in online doctoral programs, participation in inclusive and identity-affirming cohorts offers essential emotional, academic, and social support. This support significantly alleviates feelings of impostor phenomenon and fosters a sense of belonging.

Cohorts create an immediate extended network for students, which is particularly important for those whose race or gender often puts them in the minority. The cohort provides participants with access to a broader group of peers. Individuals of color may have been one of only two or three BIWOCs in a class, and the cohort connects them to more peers who are women of color, with whom they develop personal and affinity group relationships, even without sharing classes.

Vivian explained that the cohort was beneficial not only because it offered opportunities for “students of color getting together to support each other, but also just peers in the cohort, supporting each other as well despite race or nationality.” Lalia reiterated, “I feel pretty connected to everyone within the cohort. I do like how I noticed that I do not know if the program would be as diverse as it is if it were not online. So, I appreciate how diverse, you know, when you hear people talk about how black women ... do not make up many doctoral degrees ... but ... I see so many faces within the cohort. So, I think that is positive.” Because it is an online program and cohort meetings, presentations, and gatherings are on Zoom, the view of many faces of people of color was particularly significant because it offered visual proof of the diversity of the program and reinforced their sense that they belonged. Lalia expressed her feelings about IP when she asked, “Should I be here? Or was I just a quota? Were they checking off a box? Like, oh, we need to have so many black students in our cohort, so I kind of always wonder,” but seeing the number of Black students in the cohort reassured her.

Access to peers provided students with additional resources. Vivian stated, “If we had questions about our schoolwork since we were all in the same cohort, we would reach out to each other for questions, support, and encouragement.” She emphasized that this was particularly important for students who lacked strong advisors or professors. The shared discussions about texts, assignments, and program policies helped compensate for the lack of knowledge and support that some students faced. Gaining a better understanding reduced their anxiety about not knowing enough, which lessened their IP. These types of communication were crucial during the dissertation writing process, especially when the support from faculty chairs varied significantly. Students with strong advisors could assist those with weaker advisors by sharing valuable information.

Vivian had one compunction: “I wish I had been more proactive in pulling women of color together to be more supportive of each other [as] an affinity group for women of color as well as just a plain old affinity group for women in general ... I think it would have been helpful as well.” Several informal affinity groups developed from the cohort, met outside of class, built strong friendships that provided academic support and social gatherings to relieve stress, and discussed strategies essential to diminishing IP. Notably, as students dropped out of the program, the importance of affinity groups became clearer: “We started with a larger cohort and having more diversity, but probably by term three, there were just four black people, and that has been hard. Furthermore, because of how difficult it has been, we had to create our community outside the cohort to spur each other along,” Yasmin shared.

Although being part of a cohort offers benefits, it is not a panacea, and students still face racism and sexism within the cohort. The cohort’s diversity fosters feelings of belonging and pride in their race; as Sylvia shared, “It made me feel better because I felt like, okay, yeah, we are getting on the ball with including ourselves.” However, Aaliyah observed that racism and colorism can still manifest in the cohort, becoming evident when a dark-skinned individual might not receive a response to a text question as quickly as a White or light-skinned person. Nonetheless, participating in cohort question-and-answer texts can still provide valuable information.

Kelman (1958, p. 58) stated, “Compliance occurs when an individual accepts influence because he hopes to achieve a favorable reaction from another person or group. He adopts the induced behavior because he expects to gain specific rewards or approval and avoid punishments or disapproval by conforming.” In this context, compliance leads to behavioral change but does not alter personal beliefs. Mentors, especially those of the same gender and race, can provide BIWOC students with models of compliance that effectively enhance feelings of belonging without compromising one’s sense of self or awareness of their own intersectional identities.

ROLE MODEL SUPPORT

The interviews consistently highlighted the importance of building connections with other BIWOCs in the program and receiving support from faculty who share their identities. Gloria was pleasantly surprised by the diversity within the cohort, expressing, “In most of my educational experiences, I was one of a few African American individuals in classroom settings ... So, to be in a cohort with a substantial number of people of color in most classes is something I appreciate. I value that.” Similarly, Tameka remarked, “To see women leading a class ... to articulate their thoughts eloquently, to be well-informed about the questions we were posing, that meant a lot to me. Some women professors excel not only in their fields but also in fostering growth in the students they mentor.”

The interviews highlighted the salience of community and mutual support among BIWOC. Aaliyah credited her progress in the eighth term of the program to the community space created by the Black women, saying, “These are my sisters for life ... Because when you find someone in a space of anguish and sort of hardness, you often gel together. I think that is the Black experience ... Find someone you can latch onto, mentor, or be a friend ... we have no choice. Too many people are counting on this to happen for us.” This sentiment was echoed by Vivian, who described a support group for students of color within the cohort: “Every semester, this person of color will reach out to all the

other students of color to say, ‘These are the books we need to get. You can get them cheap here ... any praise, like if someone had an achievement, work, or personal, they would advertise that through this email group ... Every Sunday, we would get together to vent or to say, ‘This assignment is coming up; do we want to work on it together as a group?’ We give each other ideas or say; ‘This assignment is tough; I need support.’” The impact of social support networks on the success of BIWOC doctoral students is clear.

DISCUSSION

This section examines the findings related to the study’s two guiding research questions: (1) how race and gender intersect to shape barriers for BIWOC doctoral students, and (2) how social influence mitigates IP within online programs.

As noted in prior research, BIWOC doctoral students experience compounded pressures resulting from the intersection of race and gender, often described through concepts like the double bind (Bird, 2020; Dortch, 2016) and stereotype threat (Cokley et al., 2015). This study reaffirms and extends those themes by demonstrating how these challenges persist – and sometimes intensify – in online learning environments. The current study reinforces these findings through participants’ reflections on their need to overperform and self-doubt despite success, especially in the absence of BIWOC faculty role models. The research literature related to IP pointed out the importance of identifying characteristics of IP present in doctoral students (Chakraverty, 2020a) and the vital need for program administrators, faculty, and staff to recognize these factors and develop and implement strategies to support those experiencing IP. Scholars have argued that IP barriers are challenging to overcome when the intersection of racial and gender identities is present (Bano & O’Shea, 2023; Cokley et al., 2015; Dortch, 2016; Muradoglu et al., 2022; Radin, 1990). While online learning has increased accessibility and flexibility for doctoral students, it can also add obstacles that amplify feelings of isolation and contribute to IP (Bloomberg, 2022; Burke, 2019; K. Gardner & Leary, 2023; Ross et al., 2018; Rovai, 2001). Nevertheless, despite the challenges faced by doctoral students experiencing IP, social networks, including family, friends, work colleagues, faculty, mentors, and peers, can provide the support necessary for students to thrive (Chakraverty, 2020b; Dennis & DiMatteo-Gibson, 2022; S. K. Gardner & Gopaul, 2012; Sanford et al., 2015; Santicola, 2013; Simon, 2020; Webber et al., 2022). The study findings support several aspects of previous scholarship and offer unique perspectives.

Social influence appeared to both contribute to and diminish IP. Researchers have claimed that “social learning theory supports the process of becoming (developing new or stronger identities), and assisting individuals as they navigate their path towards gaining competency and confidence in their practice” (Culver & Bertram, 2017, p. 347); it can contribute to the development of positive individual identities as competent doctoral scholars if the program and/or course communities “nurture the learning needs and identity formation of the members” (Culver & Bertram, 2017, p. 347). The key to social communities positively affecting identity development and diminishing IP experiences depends on whether they are places of belonging or sites of exclusion.

Research has shown that the opinions and responses of the group have a greater impact when individuals are uncertain about their position within the cohort (Spears, 2021). Students experiencing IP may express doubt regarding their ability to fit into a group. They question whether they are smart enough, skilled enough, or informed enough to be part of the group. While they may feel confident in their abilities outside of the group, their rationality can clash with their group experiences during interactions (Spears, 2021). This uncertainty can result in IP experiences where they doubt the validity of their belonging within the group.

BIWOC students navigated IP through social influence by building interpersonal relationships with family, peers, and organizational members, highlighting the significance of social support systems. While prior studies (e.g., Clance & Imes, 1978; Nori et al., 2020) have documented the dynamics of

IP across various settings, this research uniquely emphasizes how the intersection of race, gender, and digital formats affects the experiences of BIWOC students. In doing so, it reinforces existing findings on the importance of social influence and support networks in alleviating IP. Furthermore, it broadens the discussion by showing that online doctoral programs, due to their inherent flexibility and cohort structures, can introduce new challenges (such as limited nonverbal communication) and create unique opportunities for fostering inclusive academic communities. Diverse racial and gender community networks can serve as a strong defense against feelings of IP (Sanford et al., 2015).

INTERSECTIONALITY

The study found that race and gender were notably associated with the IP experiences of BIWOC students. Incidents of stereotyping, microaggressions, and systemic biases heightened feelings of self-doubt and the need for inclusion. The findings align with Bensimon and Marshall's (2020) results highlighting that power structures based on race and gender shape the experiences of marginalized individuals in academia. These power structures are embedded in societal frameworks that favor dominant groups and reflect social influence. Therefore, the results indicate that IP feelings are a response to external conditions rooted in racism and sexism.

Social influence theory applies to IP when BIWOC students do not see themselves as part of the norm due to their race and gender. They start to question their opinions, skills, and values. They feel pressured to reassess these opinions and modify their behaviors following social interactions. The participants emphasized the need for representation within the faculty and cohort, as it reassured and validated their academic abilities. Supportive faculty members who understood the unique challenges faced by BIWOC students played a crucial role in fostering a sense of acceptance and belonging. This underscores the importance of faculty diversity and training that promotes inclusivity. Building social learning interactions among graduate students, their peers, and their instructors that welcome all students is a valuable objective that enhances student experiences (Culver & Bertram, 2017).

SOCIAL NETWORKS

Social anxiety can contribute to feelings of IP (Fraenza, 2016; Yaffe, 2021), yet social networks can also alleviate some of the pressures that lead to a lack of belief in oneself. As new doctoral students, BIWOC participants entered a space they had never experienced before and often felt out of place; "students with feelings of inadequacy often believe they do not belong or matter to peers; likewise, they doubt the group will help them become proficient and meet their needs" (Rogers-Shaw et al., 2022, p. 135). A lack of confidence in their skills and abilities to succeed at the highest level of academic work led to a fear of evaluation by professors and qualified peers (Fraenza, 2016).

Peer pressure is a form of social influence that demands conformity. When the peer group is new, heightened anxiety can arise as BIWOC navigate group dynamics, particularly if students must collaborate in small groups with unfamiliar partners and frequently engage in course discussions without the comfort of well-known classmates (Fraenza, 2016). However, as supportive mentoring relationships develop within the new peer group, feelings of IP can diminish (Fraenza, 2016; Hutchins, 2015). Participants reported positive social influence from professors and peers (Pervez et al., 2021). Nevertheless, online learning can complicate this influence due to communication being mediated by technology, which lacks essential social cues like body language and nonverbal signals. Assessing emotional responses accurately can be more challenging online (Fraenza, 2016), yet as emotional support grew through the cohort, BIWOC participants experienced less IP.

ONLINE LEARNING

Individual doctoral students can develop both online and offline personal identities; however, it is essential to acknowledge that "the formation of online identity of students in higher education environments is complex" (Heidari et al., 2020, p. 214). Challenges that online students face in managing IP include the effects of stress and anxiety. Unfamiliarity with technology requirements for online learning is one obstacle; students who have not transitioned directly from undergraduate education to

graduate school may question their academic writing skills, reading comprehension, or research practices if a significant amount of time has passed since they were active students. Doctoral students may pursue their degree online due to personal factors such as work, family responsibilities, time management, and/or cost; these daily life considerations can contribute to their stress and anxiety, making them more vulnerable to IP. Students enrolled in online doctoral programs may need to participate part-time due to these responsibilities, which can escalate stress due to the extended time required to graduate. The connection between IP and feelings of stress, fear, shame, anxiety, and guilt, as well as poor mental health outcomes, is highlighted by the findings of Ménard and Chittle (2023). These life circumstances affecting online students can increase IP.

Online settings also provide options for mitigating IP through interventions that include coaching for students, workshops aimed at increasing self-awareness, and resource dissemination to counter IP. Structured training can include self-reflection activities and cognitive reframing strategies that help students build a more positive self-perception, thereby reducing IP (Hsu et al., 2024). Online interventions enhance access and flexibility by incorporating interactive elements such as virtual breakout rooms, discussion forums, and scheduled video conferencing sessions to foster a sense of community and maintain human connections” (Hsu et al., 2024, p. 1) by reinforcing positive social influences that lessen IP.

This research demonstrated that online doctoral programs, due to their inherent flexibility and cohort structures, can present new challenges, such as limited nonverbal communication, while also providing unique opportunities for fostering inclusive academic communities. The study identified that social networks, including family, peers, mentors, and faculty, are crucial for navigating IP feelings. Participants found emotional support from their family and friends; however, organized networks played a key role in alleviating feelings of isolation. Specifically, the cohort model enabled individuals to connect with others facing similar challenges, fostering a sense of belonging and mitigating IP feelings.

CONCLUSION

This research makes a unique contribution to the study of IP, online postsecondary education, and the effects of intersectionality on the educational experiences of BIWOC students. The theoretical foundation focusing on social support networks offers a distinct perspective that enriches the scholarship in these areas. The shift to researching non-traditional academic offerings is significant as the growing number of online doctoral programs enhances access and removes time and location barriers. The study findings reveal implications for postsecondary institutions, online doctoral programs, and faculty and mentors working with BIWOC students. The results of the study indicate opportunities for future research on the topic of IP that can further expand the literature of the field. BIWOC online doctoral students can overcome IP with the support of social networks.

SUMMARY OF FINDINGS

The findings of the study demonstrate that BIWOC students’ experiences of IP are influenced by societal expectations, which reinforce their feelings of fraud and self-doubt. The research revealed the importance of personal relationships in fostering inclusivity and a sense of belonging, which are essential for overcoming feelings of IP. This addresses the research question: How is social influence related to a reduction in perceived barriers for online BIWOC doctoral students facing IP? Social influence theory describes the process through which individuals align their beliefs, behavior, and attitudes with societal expectations (Moussaïd et al., 2013). This influence can lead someone experiencing IP to alter their personal and professional lives to meet these expectations. The theory identifies three main types of social influence – compliance, identification, and internalization – that heighten feelings of self-doubt and fraud, even among individuals who are successful (Moussaïd et al., 2013). These outcomes result from social influence stemming from the individual’s perceived lack of competence, shaped by social factors such as comparison, validation, and external pressures (Moussaïd et al., 2013).

Establishing support networks among family, friends, colleagues, faculty, and peers, along with having role models, was crucial for the success of online doctoral students. This was especially true when these networks included women of color who understood the complexities of their intersectional identities. The interactions between BIWOC students and their support networks revealed effective strategies for identifying and combating impostorism.

Supportive family, friendship, and work groups provided BIWOC students with the motivation to pursue doctoral studies, the impetus to persevere, and the recognition of their skills that countered impostorism. Network support enhanced their feelings of belonging and pride in their accomplishments, validating their success. This finding addresses the research question of how societal networks and institutional support help mitigate or exacerbate the challenges faced by BIWOC students. Participants emphasized that meaningful connections across personal and academic domains were central to cultivating resilience and reducing feelings of fraudulence. They believed this sense of community fostered confidence in their achievements. Social connections offered reassurance that they were not alone in feeling unqualified for a doctoral degree, and this knowledge encouraged them to continue. Faculty and mentor support was crucial, as connections with admired individuals allowed BIWOC students to feel accepted and provided practical guidance. Faculty practices that reflected flexible demands, maintained open communication, offered direct feedback recognizing students' contributions, and created inclusive courses boosted students' confidence and decreased their isolation.

It was important for BIWOC doctoral students to connect with peers, particularly those in the same cohort who provided an immediate social group and were women of color. When race or gender places BIWOC doctoral students in the minority, the opportunity to develop personal and affinity group relationships is critical. Nonetheless, the cohort also broadens support through its diversity. Similar to the benefits of faculty and mentors, peers offered specific courses, assignments, and program-related knowledge; increasing knowledge is another way to overcome IP. Despite being part of this support community, participants also shared that challenges of racism and sexism persisted, and that even diversity within their cohorts sometimes heightened their feelings of marginalization, complicating their sense of belonging. Participants noted that as a consequence of their IP feelings, and even among cohort members who resembled them and shared similar backgrounds, they often shifted their behavior, attitudes, and beliefs to fit in, gain acceptance, or meet social and institutional expectations. Within their cohorts, BIWOC students, when faced with discrimination and bias, interpreted these occurrences as negative and as validation that they did not belong in the program. Additionally, it was noted that while diversity aims to promote inclusivity, in some experiences, they felt isolated or perceived that they were being singled out. As a minority in these spaces, participants experienced increased marginalization and a decreased sense of belonging and community. Building several layers of supportive networks within the postsecondary institution was crucial for online BIWOC doctoral students to achieve their goals.

IMPLICATIONS FOR POSTSECONDARY INSTITUTIONS

This research addresses the question of how the intersectionality of race and gender relates to barriers faced by BIWOC doctoral students. It advocates for acknowledging the social justice implications of revising educational policies and practices to tackle systemic biases and reduce experiences of fraudulent issues among BIWOC students, ultimately fostering more equitable and inclusive postsecondary institutions and programs. To enhance the representation of BIWOC in academia, especially in leadership roles (Burt, 2024), institutions must devise and implement strategies to mitigate IP challenges. Structuring diverse student cohorts, establishing race- and gender-based formal mentorship programs, increasing faculty diversity through broader recruitment and retention incentives, and developing effective culturally responsive pedagogy via improved professional development will aid BIWOC in online doctoral programs.

FUTURE RESEARCH

Diverse individuals experience IP in various educational settings; therefore, this topic offers ample opportunities for future research. This study examined the experiences of BIWOC encountering IP in online doctoral programs. It would be valuable to investigate other student groups and consider how their specific identities may influence the feelings of IP. Additional studies could explore IP among participants of different genders and sexualities, such as gay males or transgender women, individuals of various races, including Asians or Pacific Islanders, or students from diverse religious backgrounds, such as Muslims or Christians. Sharing the IP experiences of students with disabilities, those returning to education later than traditional college students, part-time students, or first-generation students, would enrich the literature. The diverse student bodies in higher education present numerous possibilities for research.

Researchers can also consider how social networks support BIWOC in other contexts, such as the workplace, which shares many similarities with doctoral study. BIWOC employees may experience IP that is intensified by their intersectional identities, marginalization, and a lack of mentors of the same race and gender. The roles played by family, friends, work colleagues, employers, and mentors can be examined to analyze how they contribute to the advancement of BIWOC throughout their careers.

This study's setting was also unique, as it took place in an online cohort model doctoral program in education. Other educational environments serve as fertile grounds for the study of IP. Compelling studies can be conducted in face-to-face courses, at both the master's and undergraduate levels, across various departments and programs, and within extracurricular organizations. Research involving faculty, staff, and administrators can also yield valuable insights. Studies exploring and evaluating the effectiveness of specific institutional interventions aimed at reducing IP offer research possibilities, particularly in online education. Furthermore, the concept of inner strengths and external networks is relevant across numerous educational research topics.

In closing, it is essential to recognize that women of color face systemic societal barriers that necessitate resilience and strategic support to overcome these challenges. The study was guided by research questions that concentrated on the intersectionality of race and gender related to barriers to success for BIWOC doctoral students and ways social influence reduced perceived obstacles for online BIWOC doctoral students facing IP. BIWOC aspires to achieve improved socioeconomic conditions through advanced academic studies; however, they encounter societal biases that create internal conflicts, leaving them feeling isolated, discriminated against, and pressured by societal intolerance. This study aimed to evaluate the effects of IP on BIWOC and strategies for mitigating it in doctoral programs. BIWOC draw on various networks that nurture strength and resilience, yet they must still deal with obstacles embedded in society. Internal insecurities affect many individuals, but sociocultural factors especially impact BIWOC. Support networks can alleviate many symptoms of IP, but these individuals continue to face challenges in navigating societal oppression.

REFERENCES

- Akojie, P., Entrek, F., Bacon, D., & Kanai, T. (2019). Qualitative meta-data analysis: Perceptions and experiences of online doctoral students. *American Journal of Qualitative Research*, 3(1), 117-135.
<https://doi.org/10.29333/ajqr/5814>
- American Association of University Women. (2020, August 12). *Fast facts: Women of color in higher ed*.
<https://www.aauw.org/resources/article/fast-facts-woc-higher-ed/>
- Arnold, K. R. (2021). Finding your place: Overcoming impostor syndrome. In E. Templeton, B. H. Love, & O. Johnson (Eds.), *Elevating marginalized voices in academe* (pp. 100-104). Routledge.
<https://doi.org/10.4324/9781003044338-19>

- Ashlee, A. A., Zamora, B., & Karikari, S. N. (2017). We are woke: A collaborative critical autoethnography of three “womxn” of color graduate students in higher education. *International Journal of Multicultural Education*, 19(1), 89-104. <https://doi.org/10.18251/ijme.v19i1.1259>
- Bano, S., & O’Shea, C. M. (2023). Factors contributing to impostor phenomenon in doctoral students: A US-based qualitative study. *International Journal of Doctoral Studies*, 18, 251-269. <https://doi.org/10.28945/5195>
- Beach, A. A., & Segars, A. H. (2022). How a values-based approach advances DEI. *MIT Sloan Management Review*, 63(4), 25-32.
- Bensimon, E. M., & Marshall, C. (2020). Policy analysis for postsecondary education: Feminist and critical perspectives. In C. Marshall (Ed.), *Feminist critical policy analysis II* (pp. 1-22). Routledge. <https://doi.org/10.4324/9781003063117-1>
- Bird, F. (2020). ‘Is this a time of beautiful chaos?’: Reflecting on international feminist legal methods. *Feminist Legal Studies*, 28, 179-203. <https://doi.org/10.1007/s10691-020-09434-2>
- Bloomberg, L. (2022). Designing and delivering effective online instruction: How to engage the adult learner. *Adult Learning*, 34(1), 55-56. <https://doi.org/10.1177/10451595211069079>
- Brayboy, B. M., & Deyhle, D. (2000). Insider-outsider: Researchers in American Indian communities. *Theory into Practice*, 39(3), 163-169. https://doi.org/10.1207/s15430421tip3903_7
- Brion, C., & Rogers-Shaw, C. (2022). Becoming culturally proficient qualitative researchers by crossing geographic and methodological borders. *The Qualitative Report*, 27(10), 2091-2112. <https://doi.org/10.46743/2160-3715/2022.5374>
- Burke, C. M. (2019). Retention of women in online education: An exploratory study of factors that aid in retention in an accelerated, online, teacher education program. *Quarterly Review of Distance Education*, 20(4), 27-44.
- Burt, E. C. (2024). *Black Women’s journey to higher education executive leadership: Becoming college and university presidents, provosts, and chief officers* [Doctoral dissertation, Concordia University – Chicago]. <https://www.proquest.com/dissertations-theses/black-women-s-journey-higher-education-executive/docview/3157059664/se-2>
- Carter-Veale, W. Y., Tull, R. G., Rutledge, J. C., & Joseph, L. N. (2016). The dissertation house model: Doctoral student experiences coping and writing in a shared knowledge community. *CBE – Life Sciences Education*, 15(3). <https://doi.org/10.1187/cbe.16-01-0081>
- Chakraverty, D. (2013). *An examination of how women and underrepresented racial/ethnic minorities experience barriers in biomedical research and medical programs* [Doctoral dissertation, University of Virginia]. <https://digitalcommons.unl.edu/dberspeakers/43>
- Chakraverty, D. (2019). Impostor phenomenon in STEM: Occurrence, attribution, and identity. *Studies in Graduate and Postdoctoral Education*, 10(1), 2-20. <https://doi.org/10.1108/SGPE-D-18-00014>
- Chakraverty, D. (2020a). PhD student experiences with the impostor phenomenon in STEM. *International Journal of Doctoral Studies*, 15, 159-180. <https://doi.org/10.28945/4513>
- Chakraverty, D. (2020b). The impostor phenomenon among postdoctoral trainees in STEM: A US-based mixed-methods study. *International Journal of Doctoral Studies*, 15, 329-352. <https://doi.org/10.28945/4589>
- Chhabra, G. (2020). Insider, outsider or an in-between? Epistemological reflections of a legally blind researcher on conducting cross-national disability research. *Scandinavian Journal of Disability Research*, 22(1), 307-317. <https://doi.org/10.16993/sjdr.696>
- Cialdini, R. B., & Griskevicius, V. (2010). Social influence. In R. F. Baumeister & E. J. Finkel (Eds.), *Advanced social psychology: The state of the science* (pp. 385-417). Oxford University Press. <https://doi.org/10.1002/9781444316568.wiem03047>
- Clance, P. R. (1985). *Impostor phenomenon: Overcoming the fear that haunts your success*. Peachtree Publishers.
- Clance, P. R., & Imes, S. A. (1978). The impostor phenomenon in high-achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research and Practice*, 15(3), 241-247. <https://doi.org/10.1037/h0086006>

- Cokley, K. (2024a). Coping with racism and oppression in higher education: Overcoming the impostor phenomenon. In D. F. Chang & L. L. Bryant (Eds.) *Transforming careers in mental health for BIPOC* (pp. 81-90). Routledge. <https://doi.org/10.4324/9781003309796-9>
- Cokley, K. (2024b). Introduction: The importance of empirical research on the impostor phenomenon. In K. Cokley (Ed.), *The impostor phenomenon: Psychological research, theory, and interventions* (pp. 3-13). American Psychological Association. <https://doi.org/10.1037/0000397-001>
- Cokley, K., Awad, G., Smith, L., Jackson, S., Awosogba, O., Hurst, A., Stone, S., Blondeau, L., & Roberts, D. (2015). The roles of gender stigma consciousness, impostor phenomenon and academic self-concept in the academic outcomes of women and men. *Sex Roles*, 73, 414-426. <https://doi.org/10.1007/s11199-015-0516-7>
- Cokley, K., Bernard, D. L., Stone-Sabali, S., & Awad, G. H. (2024). Impostor phenomenon in racially/ethnically minoritized groups: Current knowledge and future directions. *Annual Review of Clinical Psychology*, 20(1), 407-430. <https://doi.org/10.1146/annurev-clinpsy-081122-015724>
- Cokley, K., Stone, S., Krueger, N., Bailey, M., Garba, R., & Hurst, A. (2018). Self-esteem as a mediator of the link between perfectionism and the impostor phenomenon. *Personality and Individual Differences*, 135, 292-297. <https://doi.org/10.1016/j.paid.2018.07.032>
- Collins, P. H., & Bilge, S. (2020). *Intersectionality* (2nd ed.). Polity Press.
- Cope-Watson, G., & Betts, A. S. (2010). Confronting otherness: An e-conversation between doctoral students living with the impostor syndrome. *Canadian Journal for New Scholars in Education/Revue Canadienne des jeunes chercheurs et chercheurs en éducation*, 3(1). <https://journalhosting.ucalgary.ca/index.php/cjnse/article/view/30474>
- Crano, W. D. (2000). Milestones in the psychological analysis of social influence. *Group Dynamics: Theory, Research, and Practice*, 4(1), 68-80. <https://doi.org/10.1037/1089-2699.4.1.68>
- Crenshaw, K. (2015). Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *University of Chicago Legal Forum*, 1989(1). <https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8>
- Creswell, J. W. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- Culver, D. M., & Bertram, R. (2017). Learning value and identity formation: Social learning and the graduate studies experience. In J. McDonald & A. Cater-Steel (Eds.), *Implementing communities of practice in higher education*. Springer. https://doi.org/10.1007/978-981-10-2866-3_16
- Dennis, M., & DiMatteo-Gibson, D. (2022). Online doctoral cohort mentors: Model implementation and evaluation. *Journal of Organizational Psychology*, 22(2), 109-117. <https://doi.org/10.33423/jop.v22i2.5249>
- Dortch, D. (2016). The strength from within: A phenomenological study examining the academic self-efficacy of African American women in doctoral studies. *Journal of Negro Education*, 85(3), 350-364. <https://doi.org/10.7709/jnegroeducation.85.3.0350>
- Edwards, C. W. (2019). Overcoming impostor syndrome and stereotype threat: Reconceptualizing the definition of a scholar. *Taboo: The Journal of Culture and Education*, 18(1), 18-34. <https://doi.org/10.31390/taboo.18.1.03>
- Evans, K. (2021). *Façade trauma: Reimagining impostor syndrome in BIPOC women graduate students* [Doctoral dissertation, California State University, San Marcos]. <https://scholarworks.calstate.edu/downloads/5q47rt649>
- Fraenza, C. B. (2016). The role of social influence in anxiety and the impostor phenomenon. *Online Learning*, 20(2), 230-243. <https://doi.org/10.24059/olj.v20i2.618>
- Gardner, K., & Leary, H. (2023). Online learning for first-generation and underrepresented minoritized students: A literature review using a model of student engagement. *Online Learning*, 27(1), 263-291. <https://doi.org/10.24059/olj.v27i1.3392>
- Gardner, S. K., & Gopaul, B. (2012). The part-time doctoral student experience. *International Journal of Doctoral Studies*, 7, 63-78. <https://doi.org/10.28945/1561>

- Gasman, M. (2007). *Envisioning Black colleges: A history of the United Negro College Fund*. Johns Hopkins University Press.
- Hammersley, M., & Atkinson, P. (1996). *Ethnography: Principles in practice*. Tavistock.
- Haskins, N. H., Hughes, K. L., Crumb, L., Smith, A. R., Brown, S. S., & Pignato, L. (2019). Postmodern womanism: Dismantling the impostor phenomenon for Black American college students. *Negro Educational Review*, 70(1-4), 5-25. <https://www.proquest.com/openview/d6549035b03ef8e25f501df118c88bd7/1?pq-origsite=gscholar&cbl=46710>
- Heidari, E., Salimi, G., & Mehrvarz, M. (2020). The influence of online social networks and online social capital on constructing a new graduate students' professional identity. *Interactive Learning Environments*, 31(1), 214-231. <https://doi.org/10.1080/10494820.2020.1769682>
- Hesse-Biber, S. (2016). *The practice of qualitative research: Engaging students in the research process*. Sage.
- Hewertson, H., & Tissa, F. (2022). Intersectional impostor syndrome: How impostorism affects marginalized groups. In M. Addison, M. Breeze, & Y. Taylor (Eds.), *The Palgrave handbook of impostor syndrome in higher education* (pp. 19-35). Palgrave/Macmillan. https://doi.org/10.1007/978-3-030-86570-2_2
- Holloway, E. L., & Alexandre, L. (2012). Crossing boundaries in doctoral education: Relational learning, cohort communities, and dissertation committees. *New Directions for Teaching & Learning*, 2012(131), 85-97. <https://doi.org/10.1002/tl.20029>
- Holmes, B., Birds, K., Seay, A. D., Smith, D. B., & Wilson, K. N. (2010). Cohort learning for graduate students at the dissertation stage. *Journal of College Teaching & Learning*, 7(1). <https://doi.org/10.19030/tlc.v7i1.73>
- Holz, A. (1999). *Designing for diversity within online learning environments*. Paper presented at the Annual Australasian Society for Computers in Learning in Tertiary Education Conference, Brisbane, Queensland. <https://www.ascilite.org/conferences/brisbane99/papers/holz.pdf>
- Hsu, C. L., Liu, C. H., Huang, C. C., Chen, H. L., Chiu, Y. L., & Yang, C. W. (2024). The effectiveness of online educational interventions on impostor syndrome and burnout among medical trainees: A systematic review. *BMC Medical Education*, 24(1), 1349. <https://doi.org/10.1186/s12909-024-06340-y>
- Hutchins, H. M. (2015). Outing the imposter: A study exploring impostor phenomenon among higher education faculty. *New Horizons in Adult Education and Human Resource Development*, 27(2), 3-12. <https://doi.org/10.1002/nha3.20098>
- Jones, T. B., Brewster, B., & Matthews, D. Y. (2023). Shining the light: Black women thriving in graduate school. *New Directions for Student Services*, 2023(182), 57-68. <https://doi.org/10.1002/ss.20467>
- Kelman, H. C. (1958). Compliance, identification, and internalization: Three processes of attitude change. *Journal of Conflict Resolution*, 2(1), 51-60. <https://doi.org/10.1177/002200275800200106>
- Kelman, H. C. (1974). Attitudes are alive and well and gainfully employed in the sphere of action. *American Psychologist*, 29(5), 310-324. <https://doi.org/10.1037/h0037623>
- Kim, H. J., Kong, Y., & Tirotta-Esposito, R. (2023). Promoting diversity, equity, and inclusion: An examination of diversity-infused faculty professional development programs. *Journal of Higher Education Theory and Practice*, 23(11), 138-153. <https://doi.org/10.33423/jhetp.v23i11.6224>
- LePeau, L. A., Hurtado, S. S., & Williams, L. (2019). Institutionalizing diversity agendas: Presidents' councils for diversity as mechanisms for strategic change. *Journal of Student Affairs Research and Practice*, 56(2), 123-137. <https://doi.org/10.1080/19496591.2018.1490306>
- Letourneau, N., & Joschko, J. (2013). *Scientific parenting: What science reveals about parental influence*. Dundurn Press.
- Martin, J. L. (2018). Factors contributing to microaggressions, racial battle fatigue, stereotype threat, and impostor phenomenon for non-hegemonic students: Implications for urban education. In G. C. Torino, D. P. Rivera, C. M. Capodilupo, K. L. Nadal, & D. W. Sue (Eds.), *Microaggression theory: Influence and implications* (pp. 102-120). Wiley. <https://doi.org/10.1002/9781119466642.ch7>
- McGee, E. O., Griffith, D. M., & Houston, S. L. (2019). "I know I have to work twice as hard and hope that makes me good enough": Exploring the stress and strain of Black doctoral students in engineering and computing. *Teachers College Record*, 121(4), 1-38. <https://doi.org/10.1177/016146811912100407>

- Meadhbh Murray, Ó., Tiffany Chiu, Y.-L., Wong, B., & Horsburgh, J. (2023). Deindividualizing impostor syndrome: Impostor work among marginalized STEM undergraduates in the UK. *Sociology*, 57(4), 749-766. <https://doi.org/10.1177/00380385221117380>
- Ménard, A. D., & Chittle, L. (2023). The impostor phenomenon in post-secondary students: A review of the literature. *Review of Education*, 11(2), e3399. <https://doi.org/10.1002/rev3.3399>
- Moussaïd, M., Kammer, J. E., Analytis, P. P., & Neth, H. (2013, November). Social influence and the collective dynamics of opinion formation. *PLoS ONE*, 8(11), e78433. <https://doi.org/10.1371/journal.pone.0078433>
- Mullen, C. A. (2003). The WIT cohort: A case study of informal doctoral mentoring. *Journal of Further and Higher Education*, 27(4), 411-426. <https://doi.org/10.1080/0309877032000128109>
- Muradoglu, M., Horne, Z., Hammond, M. D., Leslie, S.-J., & Cimpian, A. (2022). Women – particularly underrepresented minority women – and early-career academics feel like impostors in fields that value brilliance. *Journal of Educational Psychology*, 114(5), 1086-1100. <https://doi.org/10.1037/edu0000669>
- Mwita, K. (2022). Strengths and weaknesses of qualitative research in social science studies. *International Journal of Research in Business and Social Science*, 11(6), 618-625. <https://doi.org/10.20525/ijrbs.v11i6.1920>
- Nila, J. (2024). *Women of color collectives in doctoral education: How women of color doctoral students thrive together* [Doctoral dissertation, The Claremont Graduate University]. <https://www.proquest.com/open-view/1c3d736771d130dd6a50233a6dab9789/1?pq-origse=gscholar&cbl=18750&diss=y>
- Nori, H., Peura, M., & Jauhiainen, A. (2020). From imposter syndrome to heroic tales: Doctoral students' backgrounds, study aims, and experiences. *International Journal of Doctoral Studies*, 15, 517-539. <https://doi.org/10.28945/4637>
- Pervez, A., Brady, L. L., Mullane, K., Lo, K. D., Bennett, A. A., & Nelson, T. A. (2021). An empirical investigation of mental illness, impostor syndrome, and social support in management doctoral programs. *Journal of Management Education*, 45(1), 126-158. <https://doi.org/10.1177/1052562920953195>
- Pretorius, L., Macaulay, L., & Cahusac de Caux, B. (Eds.). (2019). *Wellbeing in doctoral education: Insights and guidance from the student experience*. Springer. <https://doi.org/10.1007/978-981-13-9302-0>
- Radin, M. J. (1990). The pragmatist and the feminist. *Southern California Law Review*, 63(6), 1699-1726. https://heinonline.org/HOL/Page?collection=journals&handle=hein.journals/scal63&id=1717&men_tab=srchresults
- Rasheem, S., Alleman, A. S., Mushonga, D., Anderson, D., & Ofahengaue Vakalahi, H. F. (2018). Mentor-shape: Exploring the mentoring relationships of Black women in doctoral programs. *Mentoring & Tutoring: Partnership in Learning*, 26(1), 50-69. <https://doi.org/10.1080/13611267.2018.1445443>
- Rogers-Shaw, C., Brion, C., Czepiel, K., Jordan, C., & Burden-Cousins, M. (2022). *Overcoming impostor syndrome by creating intentionally inclusive cultures in online doctoral classrooms* (ED632280). ERIC. <https://eric.ed.gov/?id=ED632280>
- Rogers-Shaw, C., Brion, C., Jordan, C., & Burden-Cousins, M. (2024). Overcoming impostor syndrome in doctoral classrooms. *Journal of Thought*, 58(3-4), 43-59. https://ecommons.udayton.edu/eda_fac_pub/301
- Ross, S. R. P.-J., Volz, V., Lancaster, M. K., & Divan, A. (2018). A generalizable framework for multi-scale auditing of digital learning provision in higher education. *Online Learning*, 22(2), 249-270. <https://doi.org/10.24059/olj.v22i2.1229>
- Rovai, A. P. (2001). Building classroom community at a distance: A case study. *Educational Technology Research & Development*, 49(4), Article 4. <https://doi.org/10.1007/BF02504946>
- Sanford, A. A., Ross, E. M. R. M., Blake, S. J., & Cambiano, R. L. (2015). Finding courage and confirmation: Resisting impostor feelings through relationships with mentors, romantic partners, and other women in leadership. *Advancing Women in Leadership Journal*, 35, 31-41. <https://doi.org/10.21423/awl-j-v35.a140>
- Santicola, L. (2013). Pressing on: Persistence through a doctoral cohort program in education. *Contemporary Issues in Education Research*, 6(2), 253-264. <https://doi.org/10.19030/cier.v6i2.7736>

- Shapiro, D., Dundar, A., Huie, F., Wakhungu, P. K., Yuan, X., Nathan, A., & Hwang, Y. (2017, April). *A national view of student attainment rates by race and ethnicity – Fall 2010 cohort* (Signature Report No. 12b). National Student Clearinghouse Research Center.
- Simon, M. (2020). STEMming within a double minority: How the impostor syndrome affects Black women Ph.D. students. *International Journal of Multiple Research Approaches*, 12(2), 185-201. <https://doi.org/10.29034/ijmra.v12n2a2>
- Simon, M. (2021). Negotiating doctoral STEM studies: An in-depth look at the Black woman impostor. *Journal of African American Women and Girls in Education*, 1(2), 94-118. <https://doi.org/10.21423/jaawge-v1i2a89>
- Singleton, G. E. (2021). *Courageous conversations about race: A field guide for achieving equity in schools and beyond* (3rd ed.). Corwin.
- Smith, J. A., & Osborn, M. (2008). Interpretative phenomenological analysis. In J. A. (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 53-80). Sage. <https://doi.org/10.1002/9780470776278.ch10>
- Spears, R. (2021). Social influence and group identity. *Annual Review of Psychology*, 72, 367-390. <https://doi.org/10.1146/annurev-psych-070620-111818>
- St. John, E. P., Hu, S., & Fisher, A. S. (2010). *Breaking through the access barrier: How academic capital formation can improve policy in higher education*. Routledge.
- Tsarenko, Y., Ferraro, C., Sands, S., & McLeod, C. (2013). Environmentally conscious consumption: The role of retailers and peers as external influences. *Journal of Retail Consumer Service*, 20(3), 302-310. <https://doi.org/10.1016/j.jretconser.2013.01.006>
- United States Census Bureau. (2023, February 16). *Report on educational attainment data*. <https://www.census.gov/newsroom/press-releases/2023/educational-attainment-data.html>
- Vaughn, A. R., Taasobshirazi, G., & Johnson, M. L. (2020). Impostor phenomenon and motivation: Women in higher education. *Studies in Higher Education*, 45(4), 780-795. <https://doi.org/10.1080/03075079.2019.1568976>
- Webber, J., Hatch, S., Petrin, J., Anderson, R., Nega, A., Raudebaugh, C., Shannon, K., & Finlayson, M. (2022). The impact of a virtual doctoral student networking group during COVID-19. *Journal of Further and Higher Education*, 46(5), 667-679. <https://doi.org/10.1080/0309877X.2021.1987401>
- Wilder, C. S. (2014). *Ebony and ivy: Race, slavery, and the troubled history of America's universities*. Bloomsbury Press.
- Yaffe, Y. (2021). Students' recollections of parenting styles and impostor phenomenon: The mediating role of social anxiety. *Personality and Individual Differences*, 172, 110598. <https://doi.org/10.1016/j.paid.2020.110598>
- Yang, X., Tseng, Y., & Lee, B. (2021). Merging the social influence theory and the goal-framing theory to understand consumers' green purchasing behavior: Does the level of sensitivity to climate change really matter? *Frontiers in Psychology*, 12, 766754. <https://doi.org/10.3389/fpsyg.2021.766754>

APPENDIX: INTERVIEW PROTOCOL

Research Questions

1. How does the intersectionality of race and gender present barriers to success for BIWOC doctoral students?
2. How is social influence related to reducing perceived barriers for online BIWOC doctoral students facing IP?
First, remind participants of consent to participate and the ability to drop out at any time. Then, the Impostor Phenomenon will be defined according to the Clance IP Scale (1985). (Provide participants with a copy.) What are your initial thoughts on the elements of IP identified by Clance, such as the fear of not doing well at the start of a task, of not living up to

expectations, of being identified as lacking knowledge or talent, of viewing success as the result of luck or error rather than skill or talent, of seeing others as more accomplished, and doubting the ability to continue succeeding, among other IP traits.

Demographics

1. What race/ethnicity do you identify as?
2. What gender/sexual orientation do you identify as?
3. What is your age?
4. What is your current professional experience?
5. What is your educational background?
6. Where do you live?
7. What religion do you practice?
8. How would you describe your socioeconomic background?

Key Questions

1. Tell me about your experience in the doctoral program.
2. What has worked well in this program? What did not work well?
3. How has it impacted you personally and professionally?
4. Reflect on when you felt you did not belong and explain why. What made you think that way? Have you felt that way before? When and why? Tell me your stories. What about times/courses where you did feel like you belonged, and why? What was different about the class community in these instances?
5. Is there a particular semester or class that made you feel you did not belong in the program? If yes, which one(s)? Can you give me some specific examples of what happened? What about terms or classes where you did feel like you belonged?
6. Tell me some stories and examples of your challenges in the program.
7. What strategies are you using to combat IS? Can you tell me about some specific incidents? Have any teaching practices and course design elements helped you to feel like you belonged? What were they, and how did they make you feel welcome and competent?
8. What are your recommendations for administrators, professors, adjuncts, and students? What practices/characteristics have you seen from some administrators, professors, adjuncts, and students that you would like others to adopt?
9. When you received the study Invitation, what made you want to participate? Why did you think it was important to contribute your voice and experiences to this project? What do you hope your participation might accomplish?
10. Would you like to add anything else?
11. Who else do you recommend I talk to?

AUTHORS



Carol Rogers-Shaw, PhD, graduated from Pennsylvania State University with a doctorate in Lifelong Learning and Adult Education. She is an adjunct professor in the Department of Educational Administration at the University of Dayton, teaching in the online Leadership for Organizations doctoral program. She is the co-editor of *Adult Learning*, an international, peer-reviewed, adult education practice-oriented journal. Her research interests include expanding access and inclusion in higher education and lifelong learning for learners with disabilities, stigma and disability disclosure, transition to postsecondary education for learners with disabilities, distance education, Universal Design for Learning, profound learning, and graduate study.



Corinne Brion is an Associate Professor at the University of Dayton. The overall framework for her research is cultural proficiency to foster equity, diversity, and inclusion and create socially just educational systems.



Dr. Cindy McMullen holds an EdD in Leadership and Education and serves as the Write Site Coordinator at the University of Dayton, supporting doctoral students in scholarly writing. She also teaches business courses at the College of Western Idaho, emphasizing inclusive, real-world, and leadership-focused instruction. Her research explores the impostor phenomenon and perfectionism among women in online doctoral programs, focusing on the roles of social support, academic culture, and equity-based practices. Dr. McMullen aims to foster resilience and belonging in higher education through her work.



Dr. Colissa Irving is a dedicated education consultant with 24 years of experience as an educator. She specializes in research on cultural proficiency, culturally responsive pedagogy, and leadership, striving to create inclusive and equitable learning environments. Dr. Irving is passionate about professional development and works with educators to enhance their understanding of diverse student needs. Her expertise and commitment to education have made her a respected leader in promoting culturally responsive teaching practices that influence student success and engagement.



Dr. Megan Burden-Cousins holds an EdD in Leadership and Education from the University of Dayton. She serves as an adjunct professor of business at the University of Arkansas – Fort Smith, emphasizing practical application, leadership development, and student engagement. In addition to her academic role, Dr. Burden-Cousins leads Operational Excellence within the pharmaceutical industry, focusing on driving change from the front line out. Her work fosters innovation and enhances operational performance by empowering those closest to the work. Her combined experience in education and industry reflects a commitment to bridging business theory with real-world practice.