



Research Article

A National Investigation of Sense of Belonging among Black Adult Learners Living with Learning Disabilities

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Abstract: In this quantitative study, the authors employed an ex-post factor design to analyze National Survey of Student Engagement (NSSE) data from 874 African American adult students with and without learning disabilities, paying attention to the influence of diverse factors on their sense of belonging. Results reveal differences between sample participants—for instance, whereas 67% of Black adult students living with learning disabilities are women, 64% enroll full-time, and 63% reside off-campus. Multivariate results suggest a statistically significant relationship between students' perceived sense of belonging and their on- and off-campus experiences. Fraternity or sorority membership, faculty-student research, and service-learning engagement were significant predictors, reflecting that higher belonging scores were associated with engagement in such documented educationally effective practices for Black adult students with learning disabilities.

Keywords: sense of belonging, learning disabilities, adult students, Black/African American, college

1. Introduction

Higher education is a complex enterprise. Much of its complexity is reflected in the diversity of its institutions, faculty, staff, and students. For instance, there are over 4,300 two- and 4-year colleges and universities in the United States (U.S.), which vary in institutional control, mission, and geographic location (Thelin, 2019). Further, recent data from the U.S. Department of Education (2019) indicate that approximately 21 million students are enrolled at the undergraduate and graduate levels. Women outnumber men by a margin of at least 2 to 1 on most campuses, racial/ethnic minorities, such as African Americans, [The terms “African American” and “Black” are used interchangeably throughout this manuscript, referring to individuals whose ancestral origins lie in groups of African descent, including African Americans, Africans, Haitians, West Indians, among others, in keeping with our previous work (Strayhorn et al., 2013)] constitute a growing segment of the “new majority”, and rising numbers of college students living with disabilities (SLWDs) seek to earn a college degree. In fact, the American College Health Association estimates that 54% of students have a disability, ranging from psychiatric disorders, chronic illnesses, to learning disabilities (Vaccaro & Newman, 2016). Obscured in such reports are the experiences of those who live at the intersection of multiple categories, such as Black adult learners living with learning disabilities in higher education. Before presenting the

study's purpose, we briefly review extant literature.

2. Brief literature review

2.1 Research on Black SLWDs in higher education

Several scholarly reports provide information about the presence and predicament of Black students living with disabilities in higher education. Although some college students are still “unwilling to disclose their disability due to anxiety of being stigmatized,” national estimates exist (Love et al., 2018, p. 2). According to the National Center for Education Statistics (2020), 21% of undergraduates in the U.S. have a disability and 18% of SLWDs identify as Black. Black SLWDs at 4-year institutions have a 23% graduation rate compared to 43% of white students (Department of Education, 2011). Indeed, “investigation[s] into [the lived] experiences of ... Black [disabled students] is lacking” (Davis et al., 2024, p. 3).

The weight of empirical evidence clearly suggests that Black SLWDs share some experiences in common with their non-Black disabled peers (Beckers & Calderon, 2022), but their experiences can be uniquely shaped by the simultaneous influence of race, racism, and ableism. For example, Love et al. (2018) conducted a critical literature review to investigate the social and structural barriers that Black college students with disabilities must overcome to receive adequate support services, have their contributions valued, and experience success in higher education. They used 72 scholarly publications, including 42 peer-reviewed journal articles, to deeply examine Black SLWDs' college experiences in terms of structural contradictions, such as the historical legacy of racial inequity, the role of history and culture, and the urgent need for critical pedagogies. They discussed how “uneven distribution of economic resources, poor housing stability, failing health care ... and racial profiling” negatively impact Black students' academic achievement and life outcomes (p. 3). Though densely worded, this article is valuable to our study because it highlights that even within same-race communities, different social and physical conditions can exist, thereby justifying our approach to look at disabled versus non-disabled Black adult learners with learning disabilities.

Other studies examine factors influencing Black SLWDs social experiences in college. Among the many, let's consider Davis et al. (2024) who conducted a mix-methods descriptive study to investigate 34 Black emerging adults with and without learning disabilities (LD) using a manifest content analysis approach. Like Love et al. (2018), they posit that “racism and ableism are ubiquitous problems in the United States with colliding effects on the lives of Black persons with [disabilities]” (p. 1). They present four major themes from their analysis: impact on mental health, societal threat, neurodiverse/autism biases, and emerging life hopes. For example, a subtheme of mental health names exclusion as painful. Feeling left out of social circles due to invisible rules that denied acceptance of Black students by their white peers left Black SWLDs feeling disliked, lonely, and ridiculed. This paper is important to the present study because it addresses the unique experiences between emerging Black adults with and without LDs related to racial and disability discrimination. It also points out that exclusion or feeling left out can have negative social consequences, such as pain or, as hypothesized in the present study, lack of belonging. It introduces ableism as a possible explanatory factor for our study.

2.2 Research about on-campus experiences of Black SLWDs

Previous scholars have examined Black students living with disabilities (SLWDs) focusing on the roles faculty/staff members, peers, and family members play in their academic success. For instance, one study examined the influence of tangible and intangible supportive resources on Black SLWDs persistence, stating “social support from family members, friends/peers, and significant others is a major protective factor for psychosocial adjustment and goal persistence of minority students with disabilities” (Iwanaga et al., 2021, p. 132). Findings suggest that support from family, friends, and significant others increases goal persistence and buffers against depression. Peer support, on the other hand, seemed to reduce substance abuse and interpersonal conflicts.

Another study that affirmed the important, supportive role that family, friends, and staff play in the academic lives of Black SLWDs was conducted by Booker (2016). She highlights the unique influence of race-related stress on Black SLWDs' experiences-as people of color-as well as faculty and peer support on their degree persistence by interviewing

six undergraduate African American women. African American college women perceived faculty and peers as both facilitators and obstacles to their sense of belonging on campus. Participants mentioned that some instructors were accessible and approachable outside the classroom, establishing genuine rapport. These instrumental interactions fostered personal connections, and students perceived instructors as helpful to their success by providing relevant examples that connect with the subject. Some Black students perceived faculty as inaccessible or unapproachable, making them feel shame and doubt if they needed additional help in class. Similar results have been found in other studies of Black adult learners living with disabilities (e.g., Banks, 2019; Banks & Gibson, 2016; Hansen & Dawson, 2020).

2.3 Research about sense of belonging of SLWDs

Scholars have demonstrated the important role that sense of belonging plays in the success of college students (Strayhorn, 2019). One line of inquiry focuses on the significance of belonging for SLWDs. For example, one study based on 325 SLWDs at three large state universities explored connections between belonging and students' satisfaction with their college choice, self-advocacy, and perceptions of campus climate (Fleming et al., 2017). They found that college satisfaction is highly correlated with SLWDs feeling more included in the campus community. Other studies support these conclusions (e.g., Shalka & Leal, 2020).

In another study on the academic success of Black SLWDs, Banks and Gibson (2016) investigated the educational experiences of 12 male students with disabilities attending a 4-year historically Black college or university (HBCU) in the mid-Atlantic region of the US. They found that sense of belonging facilitated academic persistence and enhanced satisfaction. Participants also benefited from race-conscious support provided by campus personnel in disability services who hosted events that affirmed their sense of place and connection with the campus. Generally, findings underscore the critical role that faculty and staff play, as institutional agents, in cultivating supportive campus environments for Black SLWDs, affirming results reported elsewhere (Banks & Hughes, 2013; Strayhorn & Johnson, 2023).

2.4 Research about sense of belonging and on- & off-campus experiences of SLWDs

Bridging these two literatures, scholars have examined the importance of college students' sense of belonging (e.g., Strayhorn, 2019) and explored the nature of their experiences on- and off-campus (e.g., Mayhew et al., 2016), with a handful of studies related to SLWDs. For instance, some scholars highlight challenges that SLWDs face in terms of institutional barriers, specifically service access and delivery, financial aid policies, and lack of disability support services (Kurth & Mellard, 2006; Thompson-Ebanks, 2014; Thompson-Ebanks & Jarman, 2018).

Another set of studies assess the influence of campus experiences and belonging on college persistence for SLWDs. Thompson-Ebanks (2014) investigated personal obstacles associated with SLWDs premature withdrawal from college. Results suggest that some SLWDs rate support from disability services as inadequate due to staff members over-emphasizing their disability, giving little to no attention to their comprehension, writing, or reading skills, to name a few. Respondents also reported issues accessing necessary accommodations. All in all, SLWDs in the study lacked a sense of belonging and perceived higher education as generally non-responsive to their needs. Other studies affirm that positive, meaningful relationships with faculty, staff, and peers fosters students' sense of belonging, particularly Black SWLDs (Eisenman, 2020).

Despite these useful contributions to the literature, few studies focus on the on- and off-campus experiences of Black adult learners living with learning disabilities and the influence of such experiences on their sense of belonging, which has been linked consistently to good grades, class attendance, and academic success for all students (Strayhorn, 2019). This is the gap addressed by the present study.

3. Purpose

This study's purpose is to examine Black adult students living with learning disabilities (SWLDs) on- and off-campus experiences, in relation to sense of belonging. Specifically, we seek to better understand the role of institutional agents (e.g., faculty, staff, and peers) as both a facilitator and possible barrier to sense of belonging on campus (Strayhorn,

2019), among Black adult SWLDs using a large survey sample.

4. Research questions

Two overarching questions guided the current investigation: (1) What are the academic and social experiences of Black adult SWLDs with faculty, staff, and peers, on- and off-campus? (2) What influence do such experiences have on Black adult SWLDs sense of belonging in college?

5. Methods

5.1 Sample

The present study is based on analysis of large-scale data from a recent administration of the National Survey of Student Engagement (NSSE), sponsored by Indiana University's Center for Postsecondary Research (CPR). The national study surveyed 44,000 students enrolled at 650 U.S. postsecondary institutions, while this analysis is based on Black respondents at HBCUs, Hispanic-serving institutions (HSIs), and predominantly white institutions (PWIs). Thus, a total of 874 Black adult students were included in the study's sample, of which 67% identify as female and 33% male, largely reflecting their representation nationally (U.S. Department of Education, 2019). Six hundred and sixty-six participants reported living with no learning disabilities, while 208 reported a learning disability such as attention deficit hyperactivity disorder (ADHD) or dyslexia, ["Dyslexia is an alternative term used to refer to a pattern of learning difficulties characterized by problems with accurate or fluent word recognition, poor decoding, and poor spelling abilities. If dyslexia is used to specify this particular pattern of difficulties, it is important also to specify any additional difficulties that are present, such as difficulties with reading comprehension or math reasoning" (APA, 2022, p. 78)] to give a few examples.

5.2 Data collection

As part of a national administration led by the CPR at Indiana University, data have been collected from first- and senior-year students at over 1,700 participating four-year institutions in the United States. With generous financial support from *The Pew Charitable Trusts*, NSSE initially launched in 2000 as a large-scale survey designed to elicit information about the characteristics, quantity, and quality of undergraduate students' collegiate experiences. The survey is organized into several major sections, with psychometrically-sound subscales tapping key learning outcomes (e.g., personal development), effective educational practices (e.g., collaborative learning), high impact practices (e.g., study abroad), and agreed-upon indicators of student success (e.g., satisfaction, grades). NSSE researchers have conducted and published a vast array of psychometric studies about the national questionnaire. They have reported predictive validity but not reported construct validity for the five benchmarks of effective educational practice (Campbell & Cabrera, 2011). Still, it's deemed an appropriate and useful measure of adult students' engagement (Price & Baker, 2012).

After receiving feedback from the field and leading experts, NSSE staff revised several sections of the national questionnaire, one of which focused on students' disability status. Specifically, they sought to account for the complexity of identity(-ies) while avoiding exclusionary language that perpetuates ableism, deficit perspectives, and marginalization of students *living with disabilities*. In the end, designers included new, disaggregated disability items that allowed students to better classify themselves and likely helps them feel more affirmed by their institution by acknowledging, naming, and "giving voice" to their specific condition (National Survey of Student Engagement, 2021). Specifically, students were asked to respond to the question: "Do you have a disability or condition that impacts your learning, working, or living activities?" Then, they were presented with a list of disabilities and/or conditions where they could "Select all that apply". Response options included *sensory impairment* (vision/hearing), *mobility impairment*, *mental health disorder*, and learning disability. Unless otherwise noted, this analysis is based, in part, on respondents who selected "Yes" on the learning disability item.

The primary dependent variable in this study was operationalized using items drawn from the national

questionnaire in consonance with existing theory, based on guidance and precedence set elsewhere (NSSE, 2021; Strayhorn, 2019). Specifically, six items were used to create a summated scale whose psychometric- and theoretical properties were consistent with extant research about sense of belonging in college. For example, one item asked students to rate the quality of their relationships with peers. Others gauged the nature of their relationships with advisors, faculty, student services staff, and other administrators. Response options ranged from 1 (*competitive, uninvolved, sense of alienation*) to 7 (*friendly, supportive, sense of belonging*). A separate item asked students to rate their overall subjective evaluation of “their entire educational experience” at said institution, using a scale of 1 (*poor*) to 4 (*excellent*). Principal components factor analysis yielded a single factor comprised of all 6 items, accounting for 61% of inter-item variance. Alpha reliability of the summated *sense of belonging scale* ($M = 30.78$, $SD = 7.33$) was 0.868.

5.3 Data analysis

Data were analyzed in three primary stages. First, NSSE data were prepared for statistical analysis using a combination of coding and recoding procedures, missing case analyses, and handling of extreme cases (e.g., outliers), where necessary. Measures of central tendency were computed, along with graphical depictions of data (e.g., histograms, box plots). Second, descriptive statistics were computed for all variables included in the analysis, along with bivariate correlations (not shown here). Lastly, hierarchical linear regression (HLR) was used to estimate differences and net effects of academic- and social experiences on Black adult SWLDs sense of belonging in college. One-way analysis of variance (ANOVA) was employed to assess group differences in college students’ sense of belonging between Black adult students living with and without learning disabilities. Experts agree that researchers should only use ANOVA tests if certain conditions are satisfied within the data. For instance, the test assumes independence, equal variances (Levene’s test), and normality, which is the assumption that data for each group are drawn from a normally distributed population (Emerson, 2022). Plots, skewness, and kurtosis all indicate that our sample of data is normally distributed and, thus, we can proceed with using ANOVA.

6. Results

The first part of this large-scale study is purposefully descriptive as it aims to present a summary of *who* adult SWLDs are and *what* they do in college, according to responses to the NSSE. In our sample, Black adult SWLDs are majority women (67%), 77% seniors, 64% full-time enrolled, and just 1% identify as international students. In terms of sexual orientation, this group of adult learners is diverse: 59% heterosexual/straight, 4% gay, 3% bisexual, and the balance including lesbian, queer/questioning, and/or *another identity not listed*. While the vast majority attend PWIs, 12% of the sample attended HSIs and 8% attended HBCUs. Socially, they were variably involved: 10% were members of *social fraternities or sororities*, 5% were athletes on university-sponsored teams, and 18% identified as military veterans. Contrary to some other groups, Black adult SWLDs were more likely to live off-campus (63%) in a *residence farther than walking distance* to the institution, although 7% lived in a campus residence hall and 8% in an off-campus residence *within walking distance*. Table 1 presents a summary.

To measure the influence of background traits, academic factors, and social experiences in college on sense of belonging for Black adult SWLDs, we conducted a three-level hierarchical linear regression analysis. Background traits (e.g., sex, veteran status) were entered in Model 1, social experiences (e.g., leading a club) were entered in Model 2, and academic factors (e.g., grades, internship[s]) were entered in Model 3. Successive model parameter estimates were computed to assess model *goodness of fit* and the overall strength of relationships. Results suggest a statistically significant relationship between independent variables and sense of belonging for the sample in the last and final model, $F(13, 207) = 3.190$, $p < 0.001$, $R = 0.42$, $R^2 = 0.176$, adjusted $R^2 = 0.121$. The linear combination of factors in the model accounts for approximately 20% of the variance in *sense of belonging* scores for Black adult SWLDs.

Table 1. Description of the sample

Characteristics	%
Gender	
Men	33
Women	67
Sexual orientation	
Heterosexual	59
Lesbian	2
Gay	4
Bisexual	3
Queer	1
Another identity not listed	2
Prefer not to say	3
Fraternity/Sorority	
Yes	10
No	89
Enrollment status	
Full-time	64
Part-time	36
Living arrangement	
Off-campus within walking distance	8
Off-campus > walking distance	63
On-campus residence hall	7
Fraternity/Sorority house	1

Three predictors met or exceeded the threshold for statistical significance ($p < 0.05$): fraternity/sorority membership ($B = -3.764$), faculty-student research ($B = 2.35$), and service-learning engagement ($B = 3.16$), reflecting that Black adult SWLDs who engage with faculty in research projects, take service-learning courses, and join social fraternity groups tend to report higher sense of belonging scores. Two other predictors approached statistical significance ($p = 0.07$), which can be important to report in exploratory studies of this kind: study abroad ($B = 2.79$) and self-reported grades ($B = 0.39$), indicating that Black adult SWLDs who engaged in study abroad and earned better grades also reported higher levels of belonging, according to NSSE scores. Table 2 presents a full summary.

Lastly, we sought to explore differences between Black adult SWLDs and their same-race, same-age peers without learning disabilities. The sample mean *sense of belonging* score for Black adult learners was 30.78 ($SD = 7.33$), on a summated scale ranging from 6 to 39. Comparing Black adult learners with ($N = 208$) and without ($N = 666$) learning disabilities yielded statistically significant differences, $t(595) = 1.27$, $p < 0.10$, *Cohen's d* = 0.12, indicating a modest effect size. Adjusted estimates confirm these results: *Hedges correction* = 0.12 and *Glass's Δ* = 0.115. That is, Black adult students without learning disabilities reported a higher sense of belonging ($M = 31.24$, $SD = 7.27$) than same-race peers with learning disabilities such as ADHD, dyslexia, and dysgraphia, to name a few ($M = 30.35$, $SD = 7.71$).

Table 2. Hierarchical regression results for Black adult students with LDs

Factor	B	SE	B
Constant	28.086	1.632	
Class level	-0.568	0.363	-0.110
Enrollment status	0.663	0.937	0.049
Sex	-1.112	0.955	-0.081
Veteran status	0.864	1.174	0.052
Student-athlete	-1.401	2.278	-0.046
Fraternity/sorority	-3.764**	1.618	-0.172
Student leadership	-0.394	1.242	-0.025
Internship	-0.307	1.022	-0.021
Learning community	-0.533	1.228	-0.034
Study abroad	2.788+	1.545	0.130
Research with faculty	2.346**	1.205	0.142
Service learning	3.161**	0.916	0.238
Grades	0.389+	0.215	0.129

Note: + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$

7. Discussion

Recall that the study's purpose was to examine Black adult SWLDs on- and off-campus experiences, in relation to sense of belonging. Specifically, we sought to better understand this population of learners and the role of institutional agents (e.g., faculty, staff, and peers) in shaping their sense of belonging on campus, in keeping with prevailing theory (Strayhorn, 2019).

A significant contribution of the present study is that it provides one of the most recent and comprehensive descriptive analyses of Black adult SWLDs to our knowledge. If nothing else, we learn that these students are *not* a monolithic group whose personal traits, backgrounds, and college experiences are more similar to their peers than different. Rather we learn from the current study that they are predominantly full-time enrolled (64%), women (67%), and off-campus residents (63%) who live beyond walking distance of their institution based on this NSSE sample.

In light of recent national reports showing increased visibility for LGBTQIA2S+ [LGBTQIA2S+ = lesbian, gay, bisexual, trans, queer/questioning, intersex, asexual, two-spirit, and "+" (denoting an identity category or combination not yet listed or named)] students in higher education (BrckaLorenz et al., 2020), it's important to note that Black adult SWLDs are diverse in terms of sexuality with over 12% identifying as members of the LGBTQ+ community. That approximately a quarter of Black adult students in our study *also* identify as sexual minorities affirms the importance of *intersectionality* in research and the need for future researchers to adopt critical perspectives when studying populations of adult learners with intellectual impairments. Much of what has been written about LGBTQIA2S+ student populations focuses almost exclusively on white students or fostering greater inclusion of women and people of color within the gay community. Results from our study call attention to the urgent need to promote disability awareness within the community as well-this should be part of larger efforts toward gay rights, legal protections, student services, and pride

months.

Previous scholars have pointed out the tendency of researchers to focus on what disabled students *cannot do*—that is, the disability, impairment, or maladaptive behavior(s) of such students (Thompson-Ebanks, 2014). Focusing on the (dis)ability can be dehumanizing and limit one’s view of what’s possible for the student holistically and fails to direct attention to other core aspects of one’s self. Results from the present study push against this tendency by highlighting what these students *can do*—that is, the academic and social engagements of Black adult SWLDs. Recall that 5% of them were athletes playing on university-sponsored sports teams. Approximately 10% of them were members of social fraternities/sororities, 18% military veterans, and several had studied abroad, conducted research with a faculty member, or engaged in service learning, all of which are documented educationally effective practices (Kuh et al., 2011). Our findings challenge deficit-laden, preconceived notions about disability and negative attitudes (i.e., stigma) that wrongly presume these activities are impossible for students with learning disabilities. Nothing could be further from the truth. Indeed, our strengths-based sample is comprised of some students who challenge the status quo, resist negative stereotypes, and break the cycle of dominant ideologies that limit them to disengagement and alienation by joining (and leading) clubs, collaborating with faculty, serving the community, studying abroad, and so much more.

Exploring the relation between key independent predictors and sense of belonging in college for Black adult SWLDs revealed several major conclusions. First, the overall regression model was statistically significant suggesting “goodness of fit”, which translates into the fact that *there is* an overall relationship between sense of belonging in college, background traits, and on- and off-campus experiences for Black adult SWLDs in the sample. Specifically, disabled Black adult students involved in fraternities or sororities, faculty-student research collaborations, and service-learning experiences tend to report higher sense of belonging than their same-race peers who lack such experiences, all else equal. This affirms prior scholarship (Kuh et al., 2011) identifying these as DEEPs but it also calls for attention from Greek advisors, research faculty, and service-learning coordinators who *may* not be aware that these practices have potency for students of color living with disabilities, such as Black adult SWLDs. Advisors, faculty, and coordinators might partner with disability specialists for training on working effectively with neurodivergent students.

Previous scholars have found that social support from others can buffer the deleterious effects of college adjustment on SLWDs (Iwanaga et al., 2021). Results from our study confirm these thoughts but also extend the line of research to focus on disabled Black adult students with learning impairments specifically. Such learners experience challenges that naturally accompany college and additional stressors such as negative stereotypes towards their disability, ethnicity, and/or gender. Perceived support from institutional agents such as faculty research collaborators, service-learning staff, family members, and peers in campus clubs (e.g., fraternities) can reduce academic stress, feelings of isolation, and increase feelings of acceptance, respect, safety, and value on campus for Black SWLDs.

Despite all the positive gains associated with sense of belonging (Strayhorn, 2019) and the important role that DEEPs play on belonging for Black adult SWLDs in the present study, it’s still the case that Black adult students *without* learning disabilities reported higher sense of belonging in college than their same-race peers *with* learning disabilities such as dyslexia and ADHD. Certainly, managing such disabilities in college—an educational environment typically characterized by high academic expectations, rigor, and workload—can be tough. Ableism creates campus conditions that can be inhospitable, oppressive, and unwelcoming for SLWDs, often manifesting through attitudes, behaviors, codes of conduct, facilities, and language, to mention a few. Results may also point to the fact that very few faculty and staff have adequate training to work effectively with such students who are *both* adult learners and SLWDs, especially those with cognitive impairments. Findings also seem to signal the need for new or additional academic and social support services that directly address the needs of Black students living with learning disabilities.

Results of the present study have significant implications for future practice, policy, and research. For example, accommodations policies generally focus on academic tools to create equal opportunity for classroom success yet may neglect other non-academic factors that present challenges and barriers to college adjustment for SLWDs. Considering other factors beyond students’ disabilities, such as emotional, psychological, and social well-being, can assist Black adult SWLDs in navigating college, both inside and outside the classroom. Family members, faculty, staff, and other units charged with attending to adult learners need to work cooperatively to triage support in more meaningful ways, especially for SWLDs. For example, the FUTURE program at the University of Tennessee, Knoxville and the REACH program at the University of Iowa bring together multiple campus units, such as recreational sports, career services, counseling, and academic colleges to provide educational opportunities to enhance vocational, academic, and behavioral

skills for students with developmental and intellectual disabilities. Our findings suggest that support from peers and social networks, perhaps through social fraternities/sororities, may also assist these students in engaging with the university community, which, in turn, may foster a stronger sense of belonging.

Results show that there's room for improving students' relationships with campus personnel. To that end, institutions can appoint disability liaisons across academic departments to work closely with social and public service agencies to identify off-campus resources and supports for disabled Black adult students. For instance, local service agencies might assist such students with securing affordable housing near campus, within or outside of walking distance, to help alleviate housing insecurity. Connecting them with local agencies—and specifically local *agents* (people) in the community—may provide them with off-campus social connections that foster their sense of belonging in college, as consistent support from others positively affects performance (Thompson-Ebanks, 2014). Moreover, partnerships with public agencies allow institutions to learn more about the structural challenges (e.g., healthcare, employment) that affect disabled Black adult students' academic and social achievement in college. That knowledge can help inform development of new or revision of existing policies, practices, and services for SWLDs generally or Black adult SWLDs specifically.

Lastly, the present study has implications for future research. Much more information is needed to understand the academic, social, and psychological experiences of Black adult SWLDs in college. The current study casts much needed attention on the relation between belonging in college, background traits, and the on- and off-campus experiences of Black adult SWLDs using large-scale survey data. While useful, future researchers are encouraged to develop locally-constructed surveys that provide more nuanced measures for assessing respondents' disability(-ies), the influence of technology-enabled touchpoints (e.g., social media, text messaging), and various belonging domains (Bentrim & Henning, 2022), to name a few. Qualitative researchers might employ a variety of methods including interviews, observations, document analysis, and portraiture to deeply explore the lived experiences of disabled Black adult college students or the meaning they attach to their educationally purposeful interactions with faculty and staff through research, study abroad, or service learning.

8. Conclusion

Colleges and universities are becoming increasingly diverse spaces, enrolling large numbers of women, people of color, and students living with disabilities. Consequently, institutions bear a responsibility for meeting all students' needs—not just their basic physiological and academic needs, but also their psychological and social needs such as sense of belonging (Strayhorn, 2019). Belonging does not happen automatically. It requires time, energy, resources, and deliberate action to curate the kinds of experiences that foster belonging for students based on a full understanding of who they are, what they need, and when they need it. Results presented in the current study cast much-needed light on these issues for a group of students who have been largely ignored, overlooked, or unseen in the existing literature: Black adult SWLDs. By shining light on their on- and off-campus experiences, we make room for them to *shine their light* far beyond for all to see.

9. Recommendations

Well over half of our participants reported living off-campus farther than walking distance, which may underscore their urgent need for transportation, commuter parking options, and access to critical support services. Campus leaders such as Vice Presidents of Student Affairs should consider creating affordable housing on- or near-campus for adult learners with disabilities. Keep in mind that adults may have dependents, work (full- or part-time), partners, medical needs, and multiple cars, to name a few obligations, and these factors should inform any new or revised policies. Know the value proposition of living on- or near campus, both which provide greater access to campus services, supports, and events than what's possible when living far away.

One major objective of our study was to be intentionally descriptive, painting a portrait of Black adult students with learning disabilities—*who they are* and *what they do* in college. Our approach proved useful. Thus, we recommend

that institutional research (IR) staff continue to collect these data consistently from *all* students, even those with LDs who may require the assistance of human aides, digital readers, or other accommodations. Additionally, IR staff should evaluate the effectiveness of campus engagement programs (e.g., service learning, study abroad) and use these data to refine and improve initiatives, ensuring they serve and meet the unique needs of all students, especially Black adult SWLDs.

Recall that some participants in the present study reported living in campus residence halls. Resident assistants and staff should serve as peer educators, talking openly with their residents about safety, security, acceptance, anti-bullying, and mutual respect. These important discussions can help create living conditions that foster sense of belonging for all, including Black neurodiverse individuals.

One significant finding revealed that only 10% of participants were members of fraternities and sororities. To increase visibility of Black adult neurodivergent members in Greek organizations, national chapters should consider promoting this population through several marketing channels, such as social media campaigns, targeted outreach programs in collaboration with campus disability services, dedicated space on their website featuring resources for disabled members, and mentorship programs that pair neurodivergent alumni with current members.

Black adult SWLDs reported a higher sense of belonging when engaged in service learning. Given the educational benefits of belonging, various academic stakeholders (e.g., service-learning coordinators, faculty, and department chairs) should consider implementing service learning into the curriculum. This could range from programs for first-year students to thesis and capstone projects for graduating seniors. This high-impact practice offers multiple benefits, including boosting academic learning, developing professional skills, enhancing career readiness, and improving academic performance.

Regression results indicate that several documented effective educational practices are positively related to sense of belonging, for both Black adult students with and without LDs. Working with faculty on research can help boost belonging, according to our results. We recommend that undergraduate research program coordinators collaborate with disability services specialists, taking steps to actively recruit and support neurodivergent students of color, as well as faculty who desire to teach them. Use various platforms to reach a wider audience, including phone, social media, and collaborations with student organizations.

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Conflicts of interest

The authors declare no conflict of interest.

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