THWARTING THE TEMPTATION TO LEAVE COLLEGE: AN EXAMINATION OF ENGAGEMENT'S IMPACT ON COLLEGE SENSE OF BELONGING AMONG BLACK AND LATINX STUDENTS

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ABSTRACT

Aim/Purpose	Persistence rates among Black and Latinx students continue to fall behind those of their White peers. One way to address this issue is to promote a stronger college sense of belonging. While student involvement has been linked to sense of belonging, postsecondary institutions need to seriously reflect on, and re-commit to, their own role in engaging Black and Latinx students to promote their sense of belonging, a strong correlate of persistence and college completion.
Background	A sense of belonging has been linked to college success, including student persistence. One potential way to promote a sense of belonging among Black and Latinx students is through student engagement. This paper examines the relationship between student engagement and college sense of belonging among a national sample of 10,475 Black and Latinx students. Guided by student engagement theory, we parse out the role of student involvement and institutional engagement to examine the unique and net impact of each facet of engagement as it relates to college sense of belonging among Black and Latinx students.
Methodology	This study employs hierarchical linear regression modeling to examine the unique and net impact of two facets of student engagement: (a) student involvement, and (b) institutional engagement, as each relates to college sense of belonging among a national sample of 10,475 Black and Latinx students.

Contribution | This paper contributes to scholarship on persistence, engagement, and belonging among Black and Latinx students. Guided by engagement theory, the study takes a nuanced view of student engagement that acknowledges the role of student involvement, and critically, examines the role of *institutional engagement* in terms of variance explained in sense of belonging among Black and Latinx students. Consistent with calls from the literature, this study provides an empirical examination that recognizes institutional responsibility for promoting a sense of belonging among Black and Latinx students, who are often marginalized in higher education, rather than placing the onus on the students alone.

Findings | Overall, student engagement explains 18% of variance in sense of belonging among Black and Latinx students, controlling for a range of student characteristics. Student involvement explains a significant amount of variance above and beyond student background characteristics alone. Institutional engagement explains unique variance in belonging above and beyond student involvement alone, and it has the largest impact on sense of belonging of any variable in our models.

Recommendations for Practitioners | Administrators, practitioners, and leadership at postsecondary institutions should acknowledge their central role in engaging Black and Latinx students. Institutions should seek out ways to communicate the resources, support, and involvement opportunities they offer through appropriate venues such as minority student and allied organizations, cultural events, and by working with existing networks of minorities on campus. Increased efforts on the part of institutions to have a broader and more inclusive reach to engage their students may communicate to students that they matter and the institution cares about their success—leading to a greater sense of belonging. Findings from this study suggest there may be ways for students and university staff to collaborate on student success to promote desirable student outcomes like sense of belonging.

Recommendations for Researchers | The results provide evidence for the utility of a multidimensional conceptual or theoretical model in research that parses out involvement, engagement, and sense of belonging as independent constructs and specifies the relationship between each construct. It also calls attention to the important role of institutional support and engagement as a means of promoting sense of belonging among Black and Latinx students, and supports shifting the onus of engagement and belonging away from the student alone and toward institutions and their practices. Researchers should continue to explore how to promote belonging through different facets of engagement, and acknowledge the role of the institution in promoting belonging.

Impact on Society | This paper contributes to addressing seemingly intractable gaps in college persistence rates among Black and Latinx students and their White counterparts. Specifically, it contributes to an understanding of practices and policies to promote sense of belonging through student engagement to reap associated benefits such as college persistence and completion. Closing the persistence and completion gaps among student racial/ethnic groups can contribute to greater educational equity and in turn greater societal equity.

Future Research | Future research should continue to parse out student involvement, institutional engagement, and sense of belonging as distinct constructs when examining the relationship between student engagement and belonging. The present study demonstrates the merit to this approach, permitting the researcher to determine the unique and combined influence of each element of engagement on belong-

ing that would have otherwise been obscured if treated as a single construct. Adopting this approach also offered insight into the specific facets of engagement that appear to impact belonging for Black and Latinx students instead of a monolithic treatment of student involvement or engagement, allowing for a more nuanced understanding.

Keywords   Black and Latinx students, sense of belonging, college student engagement

INTRODUCTION

The demographic profile of postsecondary education in the United States is undergoing significant changes, and the number of Black and Latinx students enrolled in the nation's institutions of higher education is steadily climbing. Between 2000 and 2016, Latinx college student enrollment rates increased from 22 to 39 percent, and Black student enrollment rates increased from 31 to 36 percent (De Brey et al., 2019). However, the balance of evidence suggests that persistence rates among Black and Latinx students continue to fall behind those of their White peers. National statistics reveal stark gaps in 6-year graduation rates between White students (64%), and their Latinx (54%) and Black (40%) counterparts (De Brey et al., 2019). Thus, there are factors related to the college experience that are hindering many minority students' ability to fully realize their potential once they have enrolled, leading them to premature departure. This is cause for postsecondary institutions to seriously reflect on, and recommit to, their role in addressing college success (e.g., retention, persistence) among Black and Latinx students. It is not enough to increase access—institutions must support students through to graduation.

In response to troubling persistence and completion trends and the failure of many past efforts to improve them, educators and policymakers are looking for promising solutions to remedy seemingly intractable racial and ethnic disparities. Fostering a college sense of belonging is one promising social-psychological approach to promoting college success and completion for Black and Latinx students (Hurtado & Carter, 1997; Strayhorn, 2012). Briefly defined, sense of belonging is a sense of connectedness to others on campus; it is a relational construct that consists of a student's cognitive evaluation or assessment of their relationships to others on campus, and the affective response elicited by that evaluation (Strayhorn, 2008a, 2008b, 2012). Scholars have theoretically and empirically linked belonging to minority student persistence and college success and it is a critical part of the solution to college outcome disparities (Hausmann, Feifei, Schofield, & Woods, 2009; Hoffman, Richmond, Morrow, & Salomone, 2002; Hurtado et al., 2007; Maestas, Vaquera, & Zehr, 2007; Strayhorn, 2012).

In recent decades, scholars have steadily advanced our understanding of the various factors that engender sense of belonging. However, there are surprisingly few studies that examine the relationship between student engagement and belonging in the college context (e.g., Wood & Harris III, 2016). This is the case despite the preponderance of evidence that consistently demonstrates there is link between what students and institutions do during college (i.e., engagement) and a suite of social, academic, and psychological gains among students (Astin, 1984, 1999; Bridges, Cambridge, Kuh, & Leegwater, 2005; Kuh, 2009; Pascarella & Terenzini, 2005). Given the relational nature of belonging, promoting engagement with peers, educators, and the institution would seem to be a prime method to foster belonging. The underdevelopment of literature in this area is all the more egregious when we consider that Black and Latinx students often benefit from engagement even *more* than their White counterparts in terms of their success in college and engagement may have a compensatory effect for educational disparities and minority student outcomes (Kinzie, Gonyea, Shoup, & Kuh, 2008; Kuh, 2008; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). Student engagement is malleable, and thus promoting student engagement to encourage a sense of belonging may represent a realistic and actionable solution to lagging persistence and completion rates for Black and Latinx students (Harper & Quaye, 2009; Kuh, 2009).

Moreover, any such exploration merits a nuanced understanding of the relationship between college engagement and sense of belonging that recognizes the role of both the student and the institution—as student engagement theory directs researchers to do (Harper & Quaye, 2009; Kuh, 2009). Such an approach holds promise for developing specific and informed institutional, programming, and policy strategies to appropriately address success among Black and Latinx students in a way that does not place the onus solely on the student, and recognizes the central role institutions must play in engaging marginalized groups (Harper & Quaye, 2009; Johnson, Soldner, Leonard, & Alvarez, 2007; Osterman, 2000). There is a dearth of studies examining the link between engagement and belonging, and no studies to date have fully explored the two facets of student engagement to parse out the unique impact of each agent of engagement (student and institution) on college sense of belonging. Our study supplies evidence to illustrate the unique and combined role of student and institutional engagement in explaining sense of belonging among Black and Latinx collegians. We employed hierarchical linear regression modeling to explore the relationship between engagement and belonging using a pooled national sample of 10,475 Black and Latinx students to answer the following research question: What is the unique and net impact of each agent of college engagement (student and institution) on college sense of belonging among Black and Latinx students? We hypothesized that student engagement would be empirically linked to sense of belonging among Black and Latinx students, and that each facet of engagement (student involvement and institutional engagement) would promote sense of belonging. While existing research would suggest that student involvement would play a role in promoting a sense of belonging, we hypothesized that the efforts of the institution to engage Black and Latinx students would be a strong predictor of their sense of belonging above and beyond individual student efforts.

LITERATURE REVIEW

Sense of belonging is characterized by the quality and nature of student relationships with faculty, administrators, peers, and the institution they attend as well as a general feeling of connectedness to others on campus (Hurtado & Carter, 1997; Strayhorn, 2008a; Strayhorn, 2012). Students who feel a college sense of belonging believe that they matter to others, that they are valued, and that the campus community respects them (Strayhorn, 2012). It also represents a feeling of peer acceptance, of being important, supported by others, and of being a contributing participant in one's own learning experience (Ames, 1992; Goodenow, 1993). Students evaluate their position in relation to others on campus, and that appraisal yields particular feelings, responses, and outcomes (Strayhorn, 2008a). The lack of belonging, or sense of alienation, negatively impacts motivation, academic achievement, and educational attainment, which may lead to some negative outcomes for Black and Latinx students, like departure (Anderman & Freeman, 2004; Maestas et al., 2007; Strayhorn, 2012). Indeed, the lack of a sense of belonging is a fundamental reason why students leave college (Strayhorn, 2012). Sense of belonging is a concept that is especially well-suited to understanding the experiences of Black and Latinx students with regard to persistence and college completion (Hurtado & Carter, 1997; Hurtado et al., 2007; Maestas et al., 2007; Strayhorn, 2012; Museus, Yi, & Saelua, 2017).

A review of extant college sense of belonging scholarship revealed several factors that engender or otherwise impact belonging. While traditional student success frameworks (e.g., Astin, 1984; Tinto, 1993) emphasize student behaviors, a growing body of research explores how environmental factors influence student sense of belonging (Hurtado & Carter, 1997; Johnson et al., 2007; Johnson, 2012; Museus, Yi, & Saelua, 2017). For instance, Museus and colleagues (2017) examined the relationship between various aspects of culturally engaging campus environments and sense of belonging. They found that culturally relevant knowledge (i.e., the extent to which participants reported having opportunities to learn and exchange knowledge about their cultural communities) and cultural validation (i.e., the extent to which participants felt that their campus valued members of their cultural community) were strong predictors of belonging. In another study, Johnson and colleagues (2007) examined environmental factors and belonging and found that Asian, Black, and Latinx students all reported a weaker sense of belonging in comparison to their White counterparts at predominantly White insti-

tutions. They also found that a smooth social and academic transition into the college environment could factor into students' sense of belonging. Research also suggests that campus racial climates can influence students' sense of belonging (Hurtado & Carter, 1997; Hurtado, Alvarado, & Guillermo-Wann, 2015; Johnson, 2012; Johnson et al., 2007). For example, Hurtado and colleagues (2015) found that validating experiences with faculty and staff (i.e., experiences that empower students and help them see themselves as capable learners) (a) contributed positively to students' sense of belonging, and (b) mitigated the effects of discrimination and bias on students' sense of belonging.

Scholarship also indicates that academic and social experiences may influence college sense of belonging (Maestas et al., 2007; Nunez, 2009; Ribera, Miller, & Dumford, 2017; Slaten, Elison, Deemer, Hughes, & Shemwell, 2018; Strayhorn, 2008a; Strayhorn, 2008b). For example, Ribera and colleagues (2017) found that participation in high-impact practices like service learning, learning communities, and formal campus leadership roles were all significantly and positively related to students' sense of belonging. In addition, participation in academic support programs, perceived faculty interest in students' personal development, and fraternity and sorority membership may be linked to belonging (Maestas et al., 2007). Other research suggests that grades, studying, and interactions with diverse peers could shape belonging (Strayhorn, 2008a; Strayhorn, 2008b; Maestas et al., 2007). Nunez (2009) found that positive diversity experiences, presence of diversity in the curriculum, and student interactions with faculty were positively associated with belonging for Latinx students.

Finally, an emerging body of scholarship has examined the role of student involvement in college activities and its relationship to belonging. It is critical to note here higher education scholars often distinguish between student involvement and engagement conceptually (Astin, 1984; Kuh, 2009; Strayhorn, 2012). Involvement typically places the responsibility on the student to participate in college activities and on the frequency of that participation, whereas student engagement involves student participation in *educationally purposeful activities* and *institutional* efforts to encourage student participation in such activities (Kuh, 2009). Thus, while the scholarship examining involvement and belonging is important, it is limited in ways that this current study addresses.

Qualitative evidence suggests that involvement in ethnic student organizations may contribute to Black and Asian students' college adjustment and sense of belonging (Museus, 2008). This is in contrast, however, to another study that did not find any significant associations between participation in ethnic or culture-based organizations and sense of belonging for Latinx students (Hurtado & Carter, 1997). Through a series of correlational analyses, Strayhorn (2012) found that involvement in campus organizations, using recreational facilities, playing sports, socializing with faculty, and spending time on academic work outside of class were all positively related to higher sense of belonging among students. His studies similarly differentiated student involvement as distinct from student engagement—focusing squarely on the role of student behavior.

The aforementioned scholarship offers insight into the ways that environmental factors, academic and social experiences, and student activities may be linked to belonging. However, many of these studies were single institution studies, employed small sample sizes, or relied on less robust techniques to arrive at their conclusions. Moreover, none examined the relationship between engagement (as defined here) and college sense of belonging. Scholarship has typically explored factors that shape belonging from the perspective of what the student does, or institutional factors, but has fallen short of examining both the unique and net impact of each of these two core engagement factors on college belonging in a single study. Thus, this study addresses limitations of prior studies and offers a distinct contribution to the belonging literature by virtue of how engagement is conceptualized with implications for how postsecondary institutions support engagement and foster belonging among Black and Latinx students. Scholars have argued that promoting engagement and student success outcomes such as sense of belonging should not fall to the student alone—institutions should bear some responsibility (Harper & Quaye, 2008; Harper & Simmons, 2019). Thus our approach to analyzing the impact of each respective agent of engagement (student and institution) on sense of be-

longing among Black and Latinx students offers a unique perspective that can illustrate the unique and combined links between factors.

BLENDED CONCEPTUAL FRAMEWORK

Engagement

There are two major claims that define college student engagement theory: (a) students dedicate time and effort to educationally purposeful learning activities that produce positive educational outcomes, and (b) institutions provide students with the educationally purposeful activities and experiences necessary to achieve positive college outcomes (Harper & Quaye, 2009; Kuh, 2009). Student engagement is a reciprocal relationship between student and the institution (Harper & Quaye, 2009; Strayhorn, 2012). The theory contends that engagement consists of what the student does (i.e., involvement) *and* what the institution does (i.e., institutional engagement). In turn, engagement is theorized to be a pathway for students to develop a sense of connectedness and fit with peers, faculty, and their respective institutions (Bensimon, 2009).

Belonging

Many of the defining elements of sense of belonging were presented earlier that informs, in part, the belonging framework. Strayhorn (2012) identifies several additional components of belonging that frame the present inquiry. The theory contends that belonging is a basic human need, it drives student behavior in productive ways, and it takes on heightened importance for certain student populations (e.g., Black and Latinx students). Belonging is a sensation of connectedness to others on campus and it rests in large part on the relationships that students form with others at the institution. Students must feel valued and respected by others on campus to develop a sense of belonging, it is a need that must continue to be fulfilled, and it is linked to other positive college outcomes such as wellbeing and happiness.

METHOD

DATA SOURCE

This study utilized an ex-post facto survey design with data from the 2013-14 administration of the National Survey of Student Engagement (NSSE). The NSSE is a widely used survey instrument in higher education administered to students at education institutions to examine college student experiences and associated outcomes. The NSSE instrument is comprised of survey questions that measure student characteristics (e.g., race, grades), student perceptions of institutional environment, and student engagement in campus activities (Kuh, 2009). The NSSE instrument is designed to elicit student self-reports of involvement in campus activities, quality of effort put forth in those activities, and perceptions of the campus environment as it relates to institutional efforts to engage students (Harper & Quaye, 2009). The analytic sample in this study pools data from 10,475 Black and Latinx participants aged 18-24 from 120 large, four-year, public colleges and universities.

VARIABLES

Variables that measured dimensions of student involvement, institutional engagement, and sense of belonging were computed for our analysis. Survey items were initially selected that we hypothesized would capture the essence of our study constructs based on prior literature (Kuh, 2009; Pike, 2006; Strayhorn, 2012; Wolf-Wendel, Ward, & Kinzie, 2009). Principal component analysis with varimax rotation was performed to determine the structure of each variable and to reduce the number of items into a valid set of factors. Items with factor loadings over 0.5 were included (Tabachnick & Fidell, 2014).

First, nineteen NSSE items related to student involvement were subject to principal components analysis with varimax rotation to determine the underlying structure of student involvement variable(s). Four items did not meet the 0.5 factor loading threshold and were dropped from the analysis. Final results indicated a four-factor solution that accounted for 69% of the variance. Second, eight NSSE items measuring institutional engagement were factor analyzed with varimax rotation. Results indicated that all items loaded onto a single factor that accounted for 57% of variance; the factor could not be rotated. Third, five items related to sense of belonging were subject to factor analysis and varimax rotation. All items loaded onto one factor that accounted for 59% of variance; the factor could not be rotated. Statistical reliability was estimated by calculating Cronbach's alphas (α) for each factor. A full index of NSSE items for each variable, their respective factor loadings, and Cronbach's coefficient alphas for each scale are presented in the Appendix.

Independent variables

The primary independent variables were operationalized based on two core agents of engagement—the student and the institution (Harper & Quaye, 2009; Kuh, 2009). The first construct is student self-reported involvement and it was measured using four variables produced by the factor analysis, *collaborative academic involvement, student-faculty involvement, course material involvement,* and *diverse social involvement.* The items comprising these variables focused on the students' self-reported efforts to become involved. The student-faculty involvement variable was considered as part of the 'student involvement' construct because the survey item language was oriented toward what the student did to engage with faculty, rather than what faculty/educators did to engage the student. The second construct addresses institutional effort to engage students and was measured using one variable labeled *institutional engagement.* Items comprising the institutional engagement variable explicitly focused on the institutions' efforts to engage students as reported by students.

Collaborative academic involvement. The collaborative academic involvement variable ($\alpha = 0.80$) is a composite scale of four summated NSSE survey items. Students were asked to rate their frequency of involvement across a range of educationally purposeful activities related to collaboration with other students around academic tasks and class. A sample survey item asked students to report how often they worked with other students on course projects or assignments. Another survey question asked students to rate how often they explained course material to one or more students. Each item was rated on a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*very often*).

Student-faculty involvement. The student-faculty involvement[1] variable ($\alpha = 0.85$) is a composite scale of four summated NSSE survey items. Students were asked to rate their frequency of involvement with faculty across a range of educationally purposeful activities. The student-faculty involvement variable entailed activities such as how often students discussed course material, academics, and career plans with faculty. A sample survey item asked students to rate how frequently they discussed their academic performance with a faculty member. Items were rated on a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*very often*).

Course material involvement. The third independent variable is course material involvement ($\alpha = 0.77$) and it was measured with a composite scale of three summated survey items. The variable captured student involvement in educationally enriching and purposeful activities related to course materials. A sample survey item asked students to rate how often they reviewed their notes after class. Other survey items asked students to report how often they summarized what they learned in class or from course materials. Items were rated on a Likert-type scale ranging from 1 (*never*) to 4 (*very often*).

Diverse social involvement. The diverse social involvement variable ($\alpha = 0.89$) is a composite scale of four summated NSSE survey items. Students were asked to rate their frequency of social interactions with others from diverse political, religious, and racial backgrounds. A sample survey item asked students to report how often they had discussions with students of a race or ethnicity other than

their own. Another survey question asked students to rate how often they had discussions with students with religious beliefs other than their own. Each item was rated on a 4-point Likert-type scale ranging from 1 (*never*) to 4 (*very often*).

Institutional engagement. The institutional engagement variable ($\alpha = 0.89$) was operationalized using a composite scale of eight summated NSSE survey items that asked students to rate how much their institution emphasized engagement and involvement. Items were considered that measured student perceptions of institutional emphasis on student engagement and involvement opportunities (NSSE, 2007; Pike, 2006). For example, one item asked students to rate how much their institution emphasized contact among students from different backgrounds. Another item asked students to rate how much their institution emphasized attending campus activities and events. Items were measured on a 4-point Likert-type scale ranging from 1 (*very little*) to 4 (*very much*).

Dependent variable

The dependent variable in this study was *college sense of belonging* ($\alpha = 0.83$). Sense of belonging measures in prior scholarship have focused on students' perceived quality of relationships and interactions with students, faculty, and college administrators (Hoffman et al., 2002; Strayhorn, 2008b; Wood & Harris, 2016). A composite scale was constructed using five items in NSSE that were congruent with defining elements of sense of belonging and reflected the relational nature of the construct. For example, students were asked to rate the quality of their interactions with important people in their environments including students, faculty, and other college personnel and offices. Options ranged from 1 (*poor*) to 7 (*excellent*).

Control variables

Control variables included items related to student characteristics and demographics that could potentially confound the primary analysis and were deemed important based on our review of the literature and the blended theoretical framework. The following items served as statistical controls: (a) age, (b) gender, (c) first-generation college student status, (d) fraternity/sorority membership, (e) campus living, (f) class level, (g) enrollment status, (h) transfer status (i.e., began their studies at their current institution versus transferring from elsewhere), and (i) college grades. Coding of these variables is shown in Table 1.

Table 1: Control variable coding

Variables	Description
Age	Count variable ranging from 18 to 24
Gender	0 = Female; 1 = Male
First Generation College Student	0 = No; 1 = Yes
Fraternity/Sorority	0 = Not a member of a social fraternity or sorority; 1 = Member of a social fraternity or sorority
Campus Living	0 = Does not live on campus; 1 = Lives on campus
Class Level	1 = First year; 2 = Senior year
Enrollment Status	0 = Not full-time; 1 = Full-time
Transfer Status	0 = Not a transfer student; 1 = Transfer student
Grades	1 = C- or lower; 2 = C; 3 = C+; 4 = B-; 5 = B; 6 = B+; 7 = A-; 8 = A

DATA ANALYSIS

Data analysis proceeded in three phases. In the first phase, descriptive statistics were calculated for variables measuring student demographics and characteristics to provide the researcher with information regarding the nature and scope of the data sample. In the second phase, exploratory correlations were computed to preliminarily estimate the association between variables. In the third phase, we computed a 3-step hierarchical linear regression model to examine the relationship between student involvement, institutional engagement, and college sense of belonging, controlling for a range of student characteristics (Cohen, Cohen, West, & Aiken, 2003). This technique allowed the researchers to ascertain the variance in the dependent measure explained by one or more independent variables above and beyond that which is explained by independent variables specified in a preceding model.

LIMITATIONS

The present study is limited in a few ways. First, the study examined data from a secondary source. Thus, the researchers were limited in crafting the variables and the construction and wording of items. Second, NSSE relies on student self-reports to collect data. While some have questioned the accuracy of self-reports, other research suggests self-reports are reasonable approximations (Kuh, Pace, & Vesper, 1997; Pike, 1995; Whitt, Edison, Pascarella, Nora, & Terenzini, 1999). Third, analyzing a combined Black and Latinx student sample may miss nuances in the ways students in each respective group engage. Despite these limitations, this study offers important insight into the nuanced relationship between engagement and sense of belonging among Black and Latinx college students—an understudied area of both college student engagement and belonging research.

FINDINGS

Students in the sample had an average age of about 20 years old. Disaggregated by race/ethnicity, the sample was 26% Latinx and 74% Black. The gender breakdown of the sample was 31% male and 69% female. Approximately 56% of our sample reported being first generation college students. Eight percent of students reported participation in fraternity and sorority life and 40% of participants lived on campus. The majority of the sample was enrolled full-time (94%). Twenty-two percent were transfer students. The majority of participants reported earning college grades in the B-range (56%). Means, standard deviations, and ranges were calculated for the primary independent and dependent variables in the analysis (*See Table 2*).

Table 2: Means, Standard Deviations, and Ranges

	M	*SD*	*Min.*	*Max.*
Collaborative Academic Involvement	10.79	2.85	4.00	16.00
Student-Faculty Involvement	8.81	3.27	4.00	16.00
Course Material Involvement	9.04	2.16	3.00	12.00
Diverse Social Involvement	12.73	3.17	4.00	16.00
Institutional Engagement	24.43	5.71	8.00	32.00
Sense of Belonging	25.14	6.36	5.00	35.00

Exploratory correlations revealed significant, positive, and low to moderate associations between sense of belonging and student involvement and institutional engagement variables. The associations sufficiently warranted the third step, regression analysis, to estimate the impact of each of the independent variables on variance explained in college sense of belonging. A 3-step hierarchical linear regression model was computed to test the relationship between student engagement and sense of belonging (*See Table 3*).

The first model included controls related to student characteristics. The first model was a significantly better fit than the grand mean model $F(9, 7576)=19.43$, $p<0.01$. Age, gender, fraternity or sorority

membership, campus living, and grades were statistically significant predictors of sense of belonging. Student characteristics explained only 2% of the variance in sense of belonging reported by Black and Latinx students (R^2=0.02) and the respective beta coefficients were generally quite small. Results from our first model suggest that student characteristics play a statistically significant, but small, role in explaining sense of belonging among Black and Latinx college students.

Table 3: Hierarchical Linear Regression Models

Variables	Step 1			Step 2			Step 3		
	B	SE	β	B	SE	β	B	SE	β
Age	0.20	0.08	0.06*	0.17	0.08	0.06*	0.24	0.07	0.08**
Gender	0.76	0.16	0.06**	0.67	0.15	0.05**	0.79	0.14	0.06**
First Generation	0.00	0.15	0.00	-0.04	0.14	0.00	-0.10	0.13	-0.01
Fraternity/Sorority	0.69	0.27	0.03**	0.23	0.25	0.01	0.25	0.24	0.01
Campus Living	0.76	0.17	0.06**	0.70	0.16	0.05**	0.59	0.16	0.05**
Class Level	0.30	0.32	0.02	-0.29	0.30	-0.02	-0.08	0.29	-0.01
Enrollment Status	0.52	0.31	0.02	0.17	0.29	0.01	0.25	0.28	0.01
Transfer Status	-0.28	0.20	-0.02	-0.16	0.18	-0.01	-0.13	0.18	-0.01
Grades	0.42	0.04	0.12**	0.25	0.04	0.07**	0.21	0.04	0.06**
Coll. Academic Involvement				0.09	0.03	0.04**	0.04	0.03	0.02
Stud.-Faculty Involvement				0.46	0.02	0.24**	0.38	0.02	0.20**
Course Material Involvement				0.32	0.04	0.11**	0.16	0.03	0.05**
Diverse Social Involvement				0.21	0.02	0.10**	0.14	0.02	0.07**
Institutional Engagement							0.30	0.01	0.27**
R			0.15			0.37			0.45
R²			0.02			0.14			0.20
Adj. R²			0.02			0.14			0.20
R² change			0.02**			0.12**			0.06**

Notes. Dependent variable = Sense of belonging. *$p \leq 0.05$, **$p \leq 0.01$.

The second model included four independent variables measuring student involvement: collaborative academic involvement, student-faculty involvement, course material involvement, and diverse social involvement. The linear combination of factors was a significantly better fit than the grand mean model and explained 14% of the variance in sense of belonging; $F(13, 7572)=94.14$, $p<0.01$, $R^2=0.14$. The second model explained an additional 12% of variance in sense of belonging among Black and Latinx students above and beyond variance explained by student characteristics and traits alone.

The third and final model included the institutional engagement variable. The model was a significantly better fit than the grand mean model; $F(14, 7571)=134.92$, $p<0.01$. Institutional engagement explained an additional 6% of variance in belonging over and beyond student characteristics and student involvement alone ($\Delta R^2 =0.06$). The full model including background variables, student involvement, and institutional engagement explained 20% of the total variance in college sense of belonging among Black and Latinx students ($R^2 =0.20$). Student involvement and institutional engagement together (i.e., student engagement) explained an additional 18% of the variance in college sense of belonging above and beyond student characteristics alone, suggesting that student engagement has a significant positive effect on sense of belonging among Black and Latinx students.

In the final model, student-faculty involvement (β=0.20; p<0.01), course material involvement (β=0.05; p<0.01), and diverse social involvement (β=0.07; p<0.01) were each significant positive predictors of college sense of belonging. The beta coefficients suggest that student-faculty involvement has the largest impact on college sense of belonging among the student involvement measures. As hypothesized, institutional engagement was a statistically significant, positive predictor of college sense of belonging (β=0.27; p<0.01), controlling for student involvement and background characteristics. In fact, the beta coefficient for institutional engagement suggests that it has the largest impact, of *any* variable in our model, on college sense of belonging among Black and Latinx students.

DISCUSSION

Recall that the purpose of this study was to examine the relationship between student engagement and sense of belonging among Black and Latinx collegians. This study makes a distinctive contribution to the literature by heeding calls for research that parses out what the student does, what the institution does, and sense of belonging (Kuh, 2009; Strayhorn, 2012; Wolf-Wendel et al., 2009). Consistent with our conceptual framework, our findings suggest the important role of engagement in promoting outcomes associated with student success such as sense of belonging, and identifies the unique impact of both agents of engagement (i.e., the student and the institution) on sense of belonging among Black and Latinx students. While student involvement has long been the focus of scholars and educators as a way to promote student success—which our analysis also identified as important—this study contributes uniquely to our understanding of promoting sense of belonging among Black and Latinx students through engagement because it provides suggestive evidence of the role of *institutions* too, rather than placing the onus solely on students for their involvement.

In summary, we found that student involvement explained 12% of variance in sense of belonging over and beyond student characteristics. Institutional engagement (i.e., what the institution does) explains an additional 6% of variance in sense of belonging over and beyond student involvement. The overall net effect of student engagement explains 18% of variance in sense of belonging among Black and Latinx students, over and beyond student characteristics. Consistent with our hypothesis, findings suggest the promising role of student engagement in efforts to boost sense of belonging for Black and Latinx students, and that both student and institutional behavior affect college sense of belonging. Our results also indicated that other characteristics among Black and Latinx students (e.g., grades, gender) only explained 2% of variance in their sense of belonging. These findings are promising in that they suggest student characteristics, which are often challenging to change (e.g., age, gender), only account for a small portion of variance in sense of belonging. Thus, there are other more malleable factors such as student engagement that may be actively manipulated by students, practitioners, and institutions to promote sense of belonging toward the broader goal of improving persistence and retention.

Our results reaffirm the power of student involvement and they are consistent with longstanding and mounting evidence that student involvement positively influences a number of educational outcomes (Astin, 1984, 1999; Pascarella & Terenzini, 2005), one of which our study suggests is sense of belonging. This finding extends prior studies linking student involvement and sense of belonging for students using a large national sample (e.g., Strayhorn, 2012; Wood & Harris III, 2016). Specifically, student-faculty involvement, course material involvement, and diverse social involvement were significant, positive predictors of sense of belonging. Of those factors, student-faculty involvement appeared to have the strongest relationship with sense of belonging. This implies the relative importance of encouraging student-faculty involvement as a means of promoting belonging among Black and Latinx students. Results from this study indicate that Black and Latinx students may be particularly inclined to feel a greater sense of belonging when they are more involved in activities with faculty, such as talking to faculty about their career plans or working with faculty on activities other than coursework. Proactively creating and offering inclusive opportunities conducive to stu-

dent-faculty involvement would thus be one meaningful way to promote sense of belonging among Black and Latinx students.

Our finding around the importance of student-faculty involvement is consistent with prior work establishing the significance of faculty relationships in college student success (Hurtado, Alvarado, & Guillermo-Wann, 2015; Kim, 2010; Kim, Chang, & Park, 2009; Kim & Sax, 2009; Williams & Johnson, 2019). For example, these results are consistent with findings from other studies that suggest the positive relationship between speaking with faculty and sense of belonging for Latinx students (Hurtado & Carter, 1997) and between perceived faculty interest in a student's development and their reported sense of belonging at a Hispanic serving institution (Maestas et al., 2007). This is also consistent with Strayhorn's (2012) claim that socializing with faculty is positively related to belonging for students. Our study broadens the scope of these earlier findings and lends added robustness to this body of evidence using a large, national sample to connect student-faculty involvement to sense of belonging among Black and Latinx students.

A key contribution of this study is the finding that institutional engagement has a significant, positive impact on college sense of belonging among Black and Latinx students. Black and Latinx students who perceive greater institutional efforts to provide academic support, encourage social contact, and promote involvement in campus activities tended to report feeling a greater sense of belonging. This finding significantly expands upon literature suggesting the importance of institutions and campus contexts in shaping outcomes among Black and Latinx students (Hurtado & Carter, 1997; Johnson et al., 2007; Strayhorn, 2012). Consistent with calls for *institutions* to find ways to meaningfully engage Black and Latinx students (Harper & Quaye, 2009; Laird, Engberg, & Hurtado, 2005), one could reasonably surmise from the results of this study that creating an atmosphere of active participation while enhancing institutional efforts to offer and communicate inclusive engagement opportunities for Black and Latinx students is a worthwhile endeavor given its link to a stronger sense of belonging. This finding corroborates the argument advanced by scholars (e.g., Harper & Quaye, 2008; Harper & Simmons, 2019) that engaging Black and Latinx students and promoting their college success must fall in part to the institutions that serve them—particularly in light of historic and current systemic and structural inequalities in higher education and beyond. What students do in college matters for their success; however, what institutions do matters too.

Furthermore, it is notable that the beta weight for institutional engagement was the largest of any factor in the model, suggesting the powerful relationship between institutional engagement efforts and sense of belonging relative to student involvement factors or background characteristics. Thus not only does institutional engagement explain additional variance in belonging among Black and Latinx students above and beyond student involvement alone, it in fact appears to have the strongest relationship to belonging among all measures of engagement included in our models. This finding is noteworthy because it further reinforces the idea that institutions bear significant responsibility to ensure that Black and Latinx students develop a sense of belonging. Institutions, particularly those where Black and Latinx students may be marginalized or inclined to feel like one of few (Strayhorn, 2012), would do well to emphasize pathways for involvement among *all* students. The fact that institutional engagement appears to have the largest effect in our model also supports the notion that it we need to re-orient our thinking away from a student deficit perspective (i.e., why aren't students simply getting more involved to form connections and a sense of belonging) toward a broader perspective that also asks what the role and responsibility of the institution could be to promote student success (Harper & Simmons, 2019). Indeed, in light of historic and current systemic and structural marginalization of Black and Latinx students in higher education, we need to closely attend to the role of systemic and structural influences (i.e., institutions) on student engagement and belonging as well.

IMPLICATIONS

Findings from this study offer several implications for practice, research, and theory. First, results have implications for institutions and institutional agents. Our findings indicate that institutional engagement contributes significantly and uniquely to sense of belonging above and beyond what Black and Latinx students do (student involvement) and their characteristics (e.g., gender, grades). Administrators, practitioners, and leadership at postsecondary institutions should acknowledge their central role in engaging Black and Latinx students. Institutions should seek out ways to communicate the resources, support, and inclusive involvement opportunities they offer through appropriate venues such as minority student and allied organizations, cultural events, and by working with existing networks of Black and Latinx students on campus. Increased efforts on the part of institutions to have a broader and more inclusive reach may communicate to students that they matter, their engagement is valued, and the institution cares about their success. In turn, results from this study suggest institutional engagement efforts may promote a sense of belonging. Doing so may also incur the added benefit of improved retention and completion rates given the link between belonging and student persistence.

Second, findings from this study suggest there may be ways for students and university staff to collaborate on student success (Harper & Quaye, 2009). College educators and practitioners should take care not to overburden students with sole responsibility for their involvement; however, results suggest they should actively encourage students to take advantage of involvement opportunities during college. By parsing out specific elements of student involvement, this study enables practitioners and advisors to adopt more tailored approaches to their interactions with students. For example, this study suggests encouraging student-faculty involvement opportunities is important for developing a college sense of belonging. Advisors or college counselors who are made aware of a sense of alienation among Black and Latinx students could draw on the empirical information presented in this study to guide their work with students and to identify suitable opportunities for student-faculty involvement in an effort to cultivate a stronger sense of belonging.

This study also offers implications for future research. The results provide evidence for the utility of a multidimensional conceptual model in research that parses out involvement, engagement, and sense of belonging as independent constructs and specifies the relationship between each construct (Wolf-Wendel et al., 2009). Future research should continue to parse out student involvement, institutional engagement, and sense of belonging as distinct constructs when examining the relationship between student engagement and belonging. The present study demonstrates the merit to this approach, permitting the researcher to determine the unique and combined influence of each element of engagement on belonging that would have otherwise been obscured if treated as a single construct. Another important consideration for research is related to our finding that student-faculty involvement impacts sense of belonging among Black and Latinx students. Further attention to the potential moderating role of faculty composition in student-faculty engagement and consequently sense of belonging should continue to be explored further.

Concerning theory, the results of this study provide empirical evidence to support larger trends in the higher education literature, particularly related to explaining the college experience and its relationship to outcomes among Black and Latinx students. Scholars have argued for shifting some of the onus of fitting in at college from the student to the institution, departing from traditional theoretical understandings of integration (e.g., Tinto, 1993) toward the arguably more inclusive concept of belonging for Black and Latinx students (Hurtado & Carter, 1997; Johnson et al., 2007; Rendón, Jalomo, & Nora, 2000). Scholars have similarly argued for a conceptual shift in our understanding of student involvement and engagement to recognize the role of the student, as well as the responsibility of the *institution*, in students' college experience and behaviors—particularly for Black and Latinx students (Harper & Simmons, 2019; Harper & Quaye, 2009; Kuh, 2009). The symmetry between these conceptual trends was, in part, the crux upon which this study rested. The current investigation

unites these two arguments and conceptual shifts into one empirical piece that demonstrates the utility and promise of such an approach for addressing outcome disparities for Black and Latinx students.

CONCLUSION

This study contributes uniquely to our understanding of the relationship between student engagement and sense of belonging by parsing out the impact of two core agents of engagement (i.e., the student and the institution) on sense of belonging for Black and Latinx students. Findings suggest that student engagement is significantly related to sense of belonging among Black and Latinx students and this relationship should be considered by institutions, educators, and practitioners alike who are interested in fostering a stronger sense of belonging among college Black and Latinx students. Findings from this study contribute to our understanding of the relationship between student engagement and sense of belonging for Black and Latinx students by revealing that both what the student does (i.e., student involvement) *and* what the institution does (i.e. institutional engagement) are influential factors that may shape sense of belonging. Student involvement and institutional engagement can act together as a means of promoting a sense of belonging among Black and Latinx students, which may be one viable strategy as part of a more comprehensive solution to address continuing racial/ethnic disparities in persistence and college completion rates among students.

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BIOGRAPHIES

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Kitchen conducts quantitative, qualitative, and mixed-methods research and his research agenda spans several areas, with a central focus on the role of college transition, outreach, and support programs and interventions in promoting equitable outcomes and success among diverse students. He is committed to translating his research to inform policies and practices that promote social justice and equity in education. He currently works on a mixed-methods research and evaluation project examining a comprehensive college transition and student success program that serves first generation, low-income, and underrepresented minority college students. Previously, he was part of a national survey study examining the impact of participation in college outreach programs in science, technology, engineering, and mathematics on students' career aspirations.

Michael S. Williams is an Assistant Professor of Higher Education at the University of Missouri in Columbia, Missouri. He earned his bachelor's degree in Management Information Systems from Villanova University, his master's degree in Higher Education from the University of Pennsylvania, and his Ph.D. in Higher Education and Student Affairs from The Ohio State University. Before joining the faculty at the University of Missouri, he served as an Assistant Professor at Baruch College, City University of New York.

Williams is primarily a quantitative researcher, and his interests broadly focus on equity and diversity, the social psychological development of students, and institutional diversity in American postsecondary education. Specifically, he centers his inquiry on two aspects of higher education: (a) the student, particularly graduate (e.g., masters, doctoral, professional) student socialization and mentoring and (b) the institution, with a focus on specialized institutions such as historically Black colleges and universities.

APPENDIX

Factor Loadings and Cronbach's Alphas

Collaborative Academic Involvement (α = 0.80)	
Asked another student to help you understand course material	.799
Explained course material to one or more students	.742
Prepared for exams by discussing or working through course material with other students	.802
Worked with other students on course projects or assignments	.703
Student-Faculty Involvement (α = 0.85)	
Talked about career plans with a faculty member	.806
Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	.789
Discussed course topics, ideas, or concepts with a faculty member outside of class	.828
Discussed your academic performance with a faculty member	.792
Course Material Involvement (α = 0.77)	
Identified key information from reading assignments	.715
Reviewed your notes after class	.842
Summarized what you learned in class or from course materials	.844
Diverse Social Involvement (α = 0.89)	
Had discussions with people of a race or ethnicity other than your own	.843
Had discussions with people from an economic background other than your own	.867
Had discussions with people with religious beliefs other than your own	.854
Had discussions with people with political views other than your own	.839
Institutional Engagement (α = 0.89)	
Institutional emphasis: Providing support to help students succeed academically	.754
Institutional emphasis: Using learning support services (tutoring services, writing center, etc)	.721
Institutional emphasis: Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	.751
Institutional emphasis: Providing opportunities to be involved socially	.809
Institutional emphasis: Providing support for your overall well-being (recreation, health care, counseling, etc.)	.802
Institutional emphasis: Helping you manage your non-academic responsibilities (work, family, etc.)	.690
Institutional emphasis: Attending campus activities and events (performing arts, athletic events, etc.)	.754
Institutional emphasis: Attending events that address important social, economic, or political issues	.776
College Sense of Belonging (α = 0.83)	
Quality of interactions with other students	.594
Quality of interactions with academic advisors	.763
Quality of interactions with faculty	.823
Quality of interactions with student services staff	.829
Quality of interactions with other administrative staff and offices	.816