JCAPS

IMPACT OF FIRST-GENERATION STATUS, LIVING IN AN LLC, AND CAMPUS CLUB INVOLVEMENT ON SENSE OF BELONGING IN THE FIRST SEMESTER

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To determine if first-generation status, living in an LLC, and campus club involvement affect students' sense of belonging in their first semester of college, the researchers surveyed first-year college students enrolled at a large, public research institution during their first semester. Multiple regression analyses found campus club involvement to be a significant predictor of sense of belonging on all four subscales of the Sense of Belonging Scale: perceived peer support, perceived classroom comfort, perceived isolation, and perceived faculty support. Living in an LLC was also found to be a significant predictor of perceived peer support, but not in perceived classroom comfort, perceived isolation, or perceived faculty support. First-generation status did not emerge as a significant predictor for any of the four areas of sense of belonging. Findings revealed the significant role campus involvement has on college students' sense of belonging in the first semester.

With an increase in state and federal funding availability tied to graduation rates becoming more common at many U.S. institutions, it is understandable that retaining students is more important than ever to university administrators. Those who work in higher education often hear retention conversations focused on students' sense of belonging. Research over the past few decades has shown that, while not the only indicator, students' sense of belonging or connectedness to an institution remains important as to whether they will persist and earn a degree from that institution (Strayhorn, 2018). It is well known that students who feel they do not belong or have not established a connection to an institution are far more at risk of leaving (Tinto, 1987, 2012; Hausmann, Schofield, & Woods, 2007). While there are many subsets of student populations on campus, one group gaining more attention from university leadership in recent years is first-generation (first-gen) students (http://firstgen.naspa.org). This study focused on examining the sense of belonging among first-year students during their first semester of college through the lenses of first-gen status, students' environment (housing situation), and campus club involvement.

SENSE OF BELONGING

While several past studies have examined sense of belonging among college students, very few of these studies have a common definition of sense of belonging. According to Haggerty, Lynch-Sauer, Patusky, Bouwseman, and Collier (1992), sense of belonging is defined as "the experience of personal involvement in a system or environment that persons feel themselves to be an integral part of that system or environment" (p. 229). Most research on sense of belonging among college students focuses on first-year students, not necessarily first-gen, first-semester students. In a study that investigated the role of first-year college students' sense of belonging to their university, Hausmann et al. (2007), used multilevel modeling to determine whether a sense of belonging predicted intentions to persist. They found that a greater sense of belonging at the beginning of an academic year was associated with peer-group interactions, interactions with faculty, peer support, and parental support. Hausmann

et al. (2007), also found that "sense of belonging is a significant predictor of both institutional commitment and intentions to persist, even after controlling for student background, integration, and support variables" (p. 830).

In another study on the intention to persist and retention of first-year students, Morrow and Ackerman (2012) cited previous research where it was determined that "sense of belonging is related to academic progress, academic achievement and social acceptance" (p. 484). In their study, Morrow and Ackerman (2012) distributed the Sense of Belonging Scale (Hoffman et al., 2002) via email to first-year students; this scale consists of four sense of belonging subscales: peer support, faculty support, classroom comfort, and perceived isolation. A standard multiple regression was performed to assess if the sense of belonging was related to students' intention to persist. Results found that students are more likely to continue if they experience perceived support from faculty and peers.

Prior research cited by Inkelas, Daver, Vogt, and Leonard (2007) indicates that it is common for first-gen college students to have difficulty adapting to the college environment, resulting in a lack of sense of belonging. When students are dissatisfied with their academic and social experiences in higher education, they may leave an institution and higher education altogether (Tinto, 1975). The first term in college, especially the first six weeks, is crucial because students tend to be most susceptible to feelings of marginality (Tinto, 1987).

While numerous studies in the last two decades have focused on college students' sense of belonging related to various variables, limited research exists on the sense of belonging among first-generation students during the first semester. This is especially true when considering housing choice and campus involvement as possible influencing variables. Therefore, a look at the relationship between housing situation, campus involvement, and sense of belonging is warranted.

DEFINING FIRST-GENERATION

According to the Council for Opportunity in Education (COE), "the concept of first-generation students was introduced into federal policy by the TRIO community in 1980 (http://www.coenet.org/)." In a 1998 report entitled, "First-Generation Students: Undergraduates Whose Parents Never Enrolled in Postsecondary Education," the National Center for Educational Statistics defined a first-gen college student as one whose parents' highest level of education is a high school diploma or less. However, a recent literature review indicates that the definition of first-gen often varies among institutions. With an increased focus on first-gen students, it is essential to establish an operational definition. Peralta and Klonowski (2017) reviewed the literature related to first-gen college students and defined a first-gen college student as "an individual who is pursuing a higher education degree and whose parents or guardians do not have a postsecondary degree" (p. 635). This definition is used in this study.

FIRST-GENERATION STUDENT CHALLENGES

Prior research by Stebleton and Soria (2018) indicates that first-gen college students are more likely than non-first-gen students to possess additional factors (e.g., lower socioeconomic status, lower test scores, lack of familial support) that may disadvantage their pursuit of a college education. NASPA and the Suder Foundation established an online resource center focused exclusively on first-gen students: Center for First-Generation Student Success (http://firstgen.naspa.org). This Center assists college and university leaders in meeting the unique needs of first-gen students. As stated on the Center's website, its mission is to serve as "the premier source of evidence-based practices, professional development, and knowledge creation for the higher education community to advance the success of first-generation students."

Additionally, the COE collaborated with NASPA's Center for First-Generation Student Success and launched the inaugural National First-Generation Celebration on November 8, 2017. Because of this initiative's success in 2017 and 2018, there are plans in place to make this an annual event. A Google search of "first-generation week" shows that many institutions now choose to celebrate and focus more on first-gen students. The creation of the NASPA Center for First-Generation Student Success and an increase in first-gen student initiatives across the country indicate that higher education leadership has a vested interest in retaining first-gen students.

LIVING LEARNING COMMUNITIES

Previous research has determined that Living Learning Communities (LLCs) or Residential Learning Communities (RLCs) on college campuses have a positive effect on students' success, especially among first-year students (Zhao & Kuh, 2004). Additionally, students participating in such communities were more likely to persist in college (Tinto & Goodsell, 1993), were more engaged overall, and showed greater gains in intellectual and social development (Shapiro & Levine, 1999) when compared to their peers who were not involved in an LLC. There is also evidence that participation in LLCs leads students to feel more connected to the college or university (Pike, 1999; Inkelas et al., 2007; Wawrzynski & Jessup-Anger, 2010; Flynn, Everett, & Whittinghill, 2016).

Further, Means and Pyne (2017) found that community building within residence halls enhanced a sense of belonging among first-generation first-year students. This sense of belonging from the residence halls was also critical for participants who typically avoided social relationships. Museus, Yi, and Saelua (2017) found that future research is needed to "shed light on how living conditions (living on campus, near campus, or at home) might shape how students experience culturally engaging environments and how these environments impact outcomes such as sense of belonging" (p. 210). While there is evidence that living in residence halls can increase the sense of belonging among first-year students, there is a gap in the research on whether participation in LLCs is a predictor of sense of belonging among students in their first semester of college.

CAMPUS INVOLVEMENT

Similarly, research has also shown that involvement in campus clubs or organizations can positively affect the college student experience. Astin (1993) found that the amount of time spent participating in campus clubs or organizations was positively correlated with students' public speaking ability, leadership abilities, and interpersonal skills. Research by Cooper, Heally, and Simpson (1994) found that first-year students who join student organizations have a stronger sense of purpose than their peers who do not join student clubs or organizations. Foubert and Granger (2006) found that involvement in student organizations was positively associated with students' psychosocial development in the following areas: clarifying purpose, educational involvement, career planning, life management, and cultural participation.

Moreover, Strayhorn (2018) argues that college students' sense of belonging is related to their involvement on campus. A review of four previous studies he was involved in found that students frequently involved in meaningful college activities report a stronger sense of belonging. Specifically, "students who were involved in campus clubs, organizations, and committees tended to have a greater sense of belonging in college than their peers who were not involved in clubs or were involved less frequently" (p. 147). Limited research exists examining the impact of campus involvement on sense of belonging, specifically among first-year students in the first semester.

RESEARCH PURPOSE

This study aimed to investigate whether first-gen status, housing situation, and campus club involvement impact sense of belonging among first-year college students. There was one research question for this study: Do the variables of 1) first-generation status, 2) living in a living-learning community (LLC), and 3) campus club involvement have a significant relationship with the sense of belonging levels among first-year college students in their first semester? The dependent variables were students' average scores on each of the four subscales of the Sense of Belonging Scale (SBS, Hoffman et al., 2002).

METHOD

Design

This study was a quantitative, non-experimental design that examined information collected through an online student survey. Potential limitations of survey research include: 1) a low response rate means low validity, 2)

response bias (e.g., social desirability bias), and 3) survey fatigue or nonresponse among participants negatively affect data collection (Robinson & Leonard, 2019). The survey in this study was created in QuestionPro, the university's online survey tool, and included the revised SBS items and demographic questions. Statistical analyses were conducted with SPSS.

Participants

Participants in this study were selected through convenience sampling of the incoming fall 2019 freshman class at a large public research institution in the southeastern part of the United States. The total number of undergraduates enrolled at this institution during the 2019-2020 academic year was over 20,000, with around 5,000 students designated first-year students.

Most first-year students enrolled at this institution during this academic year were enrolled in an online, zero-credit first-year seminar class. The researchers used this course roll to identify potential participants for this study. Based on a sample size table by Johnson and Christensen (2016), the recommended sample size for a population of 5,000 is 357 and 361 for 6,000. Therefore, the target sample size for this study was roughly 358 participants.

To obtain an adequate sample size, all students (approximately 5,000) enrolled in the first-year seminar received an email invitation to complete the online survey. There was no incentive offered for participation. A total of 434 students completed the survey. Of these respondents, 103 (24.3%) identified as first-gen, 137 (32%) indicated they lived on-campus in an LLC, and 308 (71%) indicated they participated in at least one campus club/organization. The majority of respondents (66%) identified as female, and 34% as male. Additionally, most respondents (78%) reported their residency classification as in-state compared to 22% out-of-state. The racial/ethnic demographics of participants included 1) White: 79%, 2) Black or African American: 7%, 3) Asian: 5%, 4) Multiple races: 3%, 4) American - Indian or Alaskan Native: 2%, 5) Other race: 2%, 6) Native Hawaiian or Pacific Islander: 1%, and 7) Prefer not to answer: 1%.

Measures

The first part of the survey focused on measuring sense of belonging, which was done with the SBS (Hoffman et al., 2002). This scale consists of 26 total items and measures sense of belonging on four different subscales: 1) perceived peer support (8 items), 2) perceived classroom support (4 items), 3) perceived isolation (4 items), and 4) perceived faculty support (10 items). The SBS is scored using a fully anchored, five-point scale. Sample items from each scale include 1) I have met with classmates outside of class to study for an exam. (perceived peer support), 2) I feel comfortable contributing to class discussions (perceived classroom comfort), 3) I rarely talk to other students in my class (perceived isolation), and 4) I feel comfortable talking about a problem with faculty (perceived faculty support). The SBS has been widely used to measure sense of belonging and has good reliability and validity.

Part II of the survey focused on demographic questions, including first-gen status, first-semester housing situation, and campus club involvement. The survey included an operational definition of first-gen, and participants were asked to either identify as first-gen or non-first-gen. For housing situation, respondents were asked to choose one of the following options: 1) on-campus in a traditional residence hall, 2) on-campus in an LLC, 3) off-campus alone, 4) off-campus with roommates, 5) off-campus with parents, or 6) off-campus with other family members. Those who selected an on-campus option received a follow-up question asking which type of dorm room they lived in (traditional or suite-style) and the number of roommates. If respondents selected the off-campus option, they received follow-up questions about the number of people they live with and their commute time to campus. For campus club involvement, participants were also asked to select the types of clubs/organizations in which they were involved. Options for clubs/organizations included 1) arts, 2) athletics, 3) club or intramural sports, 4) ethnic or cultural, 5) Greek Life, 6) political, 7) religious, 8) other, 9) none, and 10) prefer not to answer; respondents were asked to select all that applied to them. Answers to this question were then used to create a total score for campus involvement.

Procedure

After IRB approval, participants were emailed a link to an anonymous survey via their university email addresses during the first week of November 2019. This time was chosen because it was near the end of the semester after students have had time to make connections during their first semester, but before end-of-semester course evaluations were sent to all students.

Upon clicking the link to the survey, participants were first presented with a consent form, at which point they had the option to continue or exit the survey. The consent form addressed the following: 1) potential risks, 2) the amount of time expected to complete the survey, 3) a reminder that participants' responses are anonymous, and 4) to clarify that participants have the option of discontinuing the survey at any time once they begin. The next portion of the survey focused on measuring students' sense of belonging using the SBS, followed by first-gen status, housing situation questions, level of campus club involvement, and additional demographic questions. The final page of the survey thanked participants for their participation and included the researcher's contact information should they have any follow-up questions.

Data Analysis

Survey results were exported from QuestionPro into a Microsoft Excel workbook to organize data for statistical analyses. All data were cleaned before conducting analyses of the survey results, as Morrow (2017) recommends. Descriptive statistics and frequency distributions were used to identify missing data and to summarize the demographic data. Missing data appeared to be non-random and the result of a few participants skipping questions. Because the amount of missing data was less than 5% (Morrow, 2017; Tabachnick & Fidell, 2018), responses with missing data were excluded from the regression analyses. After the data cleaning process was completed, data were analyzed using SPSS. Regression analyses were conducted for each dependent variable to test the hypotheses. The null hypothesis states that none of these variables are a predictor of sense of belonging, while the alternative hypothesis states that at least one of these variables is a significant predictor of sense of belonging.

RESULTS

Standard multiple regression analyses were conducted to test if first-gen status (no, yes; coded as 0,1), living in an LLC (no, yes; coded as 0,1), and campus club involvement (continuous) significantly predicted sense of belonging (DV) among first-year college students in their first semester. Other independent variables such as race and off-campus living arrangement were excluded from the analysis due to a small sample size among the different sub-groups. Most participants identified as White (n=368), and most reported they lived on-campus (n=398). Four distinct types of sense of belonging were measured and utilized as dependent variables: 1) average perceived peer support, 2) average perceived classroom comfort, 3) average perceived isolation, and 4) average perceived faculty support. Table 1 shows the multiple regression results indicating the effect of first-gen status, living in an LLC, and campus club involvement on all four of the sense of belonging dependent variables. Following the table, findings for each sense of belonging variable are discussed in more detail.

Table 1
Multiple Regression Results

	R	Adj R2				
DV: Perceived Peer Support	0.23	0.05				
IV			**B**	**ß**	**sri2**	**Sig.**
First–gen status			0.038	0.015	0.010	0.758
Living in an LLC			0.284	0.122	0.014	0.012
Campus club involvement			0.206	0.180	0.030	0.001
DV: Perceived Classroom Comfort	0.20	0.03				
First–gen status			–0.139		0.002	0.283
Living in an LLC			0.224	0.090	0.008	0.063
Campus club involvement			0.184	0.151	0.022	0.002
DV: Perceived Isolation	0.22	0.04				
First–gen status			0.035	0.015	0.000	0.760
Living in an LLC			–0.198	–0.089	0.008	0.067
Campus club involvement			–0.207	–0.189	0.035	0.001
DV: Perceived Faculty Support	0.15	0.14				
First–gen status			–0.036	–0.019	0.000	0.692
Living in an LLC			0.064	0.038	0.001	0.442
Campus club involvement			0.110	0.132	0.017	0.008

Perceived Peer Support

A standard multiple regression was performed in SPSS using first-gen status, living in an LLC, and campus club involvement as IVs and students' average perceived peer support scores as the DV. The f-test for the standard multiple regression, $F(3,412) = 7.687$, $p < .001$, $R = .23$ and *Adj.* $R^2 = .05$ revealed that the R was significantly different from zero. Thus, the combination of first-gen status, living in an LLC, and campus club involvement significantly predicted perceived peer support among first-semester students. Examining the IVs in the regression model revealed that living in an LLC (ß = .122, $sri^2 = .002$) and being involved with campus clubs (ß = .180, $sri^2 = .030$) are significant predictors of perceived peer support, however, first-gen status (ß = .015, $sri^2 = .010$) is not a significant predictor. Therefore, students living in LLCs and those more involved in campus clubs are predicted to have a higher level of perceived peer support than those who do not live in LLCs or are not involved in campus clubs. Overall, the IVs tested accounted for 5% of the variance in students' perceived peer support.

Perceived Classroom Comfort

A standard multiple regression was performed in SPSS using first-gen status, living in an LLC, and campus club involvement as IVs and students' average perceived classroom comfort scores as the DV. The f-test for the standard multiple regression, $F(3,418) = 5.743$, $p < .001$, $R = .20$ and *Adj.* $R^2 = .03$ revealed that the R was significantly different from zero. Thus, the combination of first-gen status, living in an LLC, and campus club involvement significantly predicted perceived classroom comfort among first-semester students. Examining the IVs in the regression model revealed that campus club involvement (ß = .151, $sri^2 = .022$) is a significant predictor of perceived classroom comfort, however, first-gen status (ß = -.052, $sri^2 = .003$) and living in an LLC (ß = .090, $sri^2 = .008$) are not significant predictors. In other words, students more involved in campus clubs are predicted to have a higher level of perceived classroom comfort than those not involved in campus clubs.

Perceived Isolation

A standard multiple regression was performed in SPSS using first-gen status, living in an LLC, and campus club involvement as IV. Respondents' average perceived isolation score represented the DV. The f-test for the standard multiple regression, $F(3,415) = 7.250$, $p < .001$, $R = .22$ and *Adj.* $R^2 = .04$ revealed that the R was significantly different from zero. Thus, the combination of first-gen status, living in an LLC, and campus club involvement significantly predicted perceived isolation among first-semester students. Examining the IVs in the regression model revealed that more campus club involvement (ß = -.189, $sri^2 = .035$) is a significant predictor of perceived isolation, however, first-gen status (ß = .015, $sri^2 < .001$) and living in an LLC (ß = -.089, $sri^2 2 = .008$) are not significant predictors. Thus, students more involved in campus clubs are predicted to have lower perceived isolation than those who are not involved in campus clubs.

Perceived Faculty Support

A standard multiple regression was performed in SPSS using first-gen status, living in an LLC, and campus club involvement as IVs and students' average perceived faculty support scores as the DV. The f-test for the standard multiple regression, $F(3,418) = 3.027$, $p = .029$, $R = .15$ and *Adj.* $R^2 = .014$ revealed that the R was significantly different from zero. Thus, the combination of first-gen status, living in an LLC, and campus club involvement significantly predicted perceived faculty support among first-semester students. Examining the IVs in the regression model revealed that campus club involvement (ß = .110, $sri^2 = .017$) is a significant predictor of perceived faculty support, however, first-gen status (ß = -.019, $sri^2 < .001$) and living in an LLC (ß = .038, $sri^2 = .001$) are not significant predictors. Therefore, students involved in campus clubs are predicted to have a higher perceived faculty support level than those not involved in campus clubs.

DISCUSSION

Summary of Results

This study explored the impact of first-gen status, living in an LLC, and campus club involvement on first-year students' sense of belonging in their first semester of college. Sense of belonging was measured using the SBS

(Hoffman et al., 2002), which has four subscales: perceived peer support, perceived classroom comfort, perceived isolation, and perceived faculty support. Results confirmed the hypothesis that at least one of the independent variables would predict a sense of belonging among first-year students in their first semester. In this case, campus club involvement was the one variable that predicted a sense of belonging as measured by all four subscales of the SBS. Additionally, living in an LLC predicted first-year students' level of perceived peer support. However, living in an LLC was not found to predict first-year students' perceived classroom comfort, perceived isolation, or perceived faculty support. First-gen status did not predict first-year students' sense of belonging on any of the subscales used to measure it. This study supports previous research (Strayhorn, 2018; Gillen-O'Neel, 2019) that campus involvement or engagement influences students' sense of belonging. The link found between perceived peer support and living in an LLC supports previous research findings that students living in an LLC report a greater sense of belonging than non-LLC students (Spanierman et al., 2013; Johnson et al., 2020; Flynn et al., 2016).

Limitations

The primary limitation of this study is that the sample was obtained from a predominately White institution (PWI). Most respondents identified as White, so generalizations are limited to similar samples of participants. A more diverse sample is needed to fully understand the interrelationships among these variables. Because this study used a quantitative scale to measure sense of belonging, it was not possible to get a richer understanding of these interrelationships. In addition, only 24% of students in the sample identified as first-gen, so studies with a larger sample size might find that first-gen status is a predictor of first-year students' sense of belonging. Campus type and size are also possible limitations to this study. Predictors of sense of belonging might look different at smaller, private campuses or community college campuses.

Implications

The results of this study serve as a reminder of how important it is for first-year students to get involved on campus during their first semester in college. Getting involved early promotes a sense of belonging among students, potentially increasing their likelihood of being retained. Not only does campus involvement result in a stronger sense of belonging among students (Strayhorn, 2018), it also has positive effects on students' leadership and interpersonal skills (Astin, 1993), their sense of purpose (Cooper et al., 1994), and their psychosocial development (Foubert & Grainger, 2006). For instance, students with higher levels of involvement in student organizations reported greater psychosocial development in establishing and clarifying purpose, educational involvement, career planning, life management, and cultural participation (Foubert & Grainger, 2006).

In addition to promoting involvement in campus clubs and organizations during New Student Orientation sessions and Welcome Week activities, one idea to encourage campus involvement among first-year students is to consider incorporating it as a requirement or extra credit in first-year seminar courses or other general education core classes required of all students. Additionally, student affairs administrators in functional areas such as housing, admissions, new student orientation, campus life, academic advising, and academic coaching should consider promoting campus clubs and LLCs in materials for prospective first-year students and through conversations with new students and parents. Since social media is a common way for universities to promote campus activities and events, it is important that administrators post campus involvement opportunities on the social platforms that are popular with incoming students at the time. Students could be asked about their preferred platform during orientation registration, check-in, or during orientation sessions about campus involvement. Other ways to promote campus involvement opportunities might involve including a statement on the course syllabus referring students to a campus clubs/organizations website or posting an announcement on the campus learning management system during the first couple of weeks of classes. Ongoing assessments of campus clubs and organizations are also essential as they can provide insight into why students join in the first place, why they stay involved, and why they leave.

Future Research

Qualitative or mixed-method studies that explore the extent to which students are involved in campus clubs could provide additional insight and richer context into this area of research. For example, focus groups or interviews with first-semester students offer the opportunity to ask more details about the level of involvement,

including follow-up questions for clarification, if needed. Research on understanding which types of campus activities, including club types and level of involvement, are most beneficial to students' sense of belonging is also warranted. Perhaps the overarching question for future research is what is it about being involved on campus that influences students' sense of belonging?

CONCLUSION

Campus club involvement is a predictor of a sense of belonging among first-year students in their first semester of college. Living in an LLC also predicts students' perceived peer support among first-year students. First-gen status does not predict sense of belonging among first-year students in the first semester. This study provides insight into how student affairs professionals in housing, admissions, orientation, academic advising, and academic coaching could promote a sense of belonging among first-year students, leading to greater retention rates. Ongoing research is needed to determine what other factors might also impact students' sense of belonging in their first college semester and if these factors impact their sense of belonging over time.

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