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Sense of Belonging of LGBTQ+, Racial Minority, and Religiously Affiliated College Students at Binghamton University

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Sense of Belonging of LGBTQ+, Racial Minority, and Religiously Affiliated College Students at Binghamton University

Cover Page Footnote

Acknowledgments Jamie V. Vong is an undergraduate attending SUNY Binghamton and was a member of the research team. He helped design the study discussed in this paper, as well as assisted with data collection and interpretation. He was not able to participate in writing this paper.

Sense of Belonging of LGBTQ+, Racial Minority, and Religiously Affiliated College

Students at Binghamton University

Abstract:

Binghamton University and institutions alike have put forth certain rules and efforts to ensure that students of the LGBTQ+ community, people of color, and students who are religiously affiliated feel safe. The reality is that many of these students feel unwelcome and ostracized due to their social identities (Blakmon et al., 2020). The aim of this non-experimental study was to investigate if there was a significant difference in sense of belonging among minority groups of undergraduate students who attend Binghamton University, as well as those who are not part of minority groups. We hypothesized that the sense of belonging amongst minority groups will be lower when compared to the student population that does not self-identify within one of the following minority groups: LGBTQ+, racial minority, religiously affiliated. There was no significant data to conclude that students at Binghamton University who are LGBTQ+, a part of a racial minority, or are religiously affiliated have a lower or higher sense of belonging compared to students who are not part of those minority groups. This may mean that Binghamton University has found ways to support students that belong to these minority groups.

Keywords: minority students, sense of belonging, academic institutions, undergraduate students

Introduction

In learning about college students' integration into the academic and social aspect of a campus community, researchers have linked degree success of students in higher education with peer and faculty relationships (Pascarella & Terenzini, 2005). As stated by Tinto (1993), such relationships are critical indicators of the persistent decision and success of first-year students. However, Tinto's theory has been encountered with discord as it places the responsibility to integrate and adapt to college success on students rather than the institution. Hurtado and Carter (1997), for example, emphasized that Tinto (1993) failed to acknowledge the institution's responsibility to uphold a cultural support system rather than fostering "mainstream" activities that alienate minority students. In turn, Hurtado and Carter (1997) offered the concept of *sense of belonging*, which generally emphasized the interconnectedness of the individual and the institution's role in integrating to college. The aim of this non-experimental study is to

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investigate if there is a significant difference in sense of belonging among minority groups and non-minority groups of undergraduate students who attended Binghamton University. The research question this study aimed to address was: Is there a significant difference in sense of belonging among minority groups of undergraduate students who attend Binghamton University when compared to students who do not identify as one of the three minority groups - LGBTQ+, racial minority, and religiously affiliated?

Relevant Literature

Sense of belonging in college students is increasingly becoming a crucial topic in college campuses and higher education when considering the social and academic support of enrolled minority students. As defined by scholars, sense of belonging is “students’ perceived social support on campus, a feeling or sensation of connectedness, the experience of mattering or feeling cared about, accepted, respected, valued by, and important to the group (e.g., campus community) or others on campus (e.g., faculty, peers)” (Strayhorn, 2012, pg. 3). While scholars have varying constructs of sense of belonging, it is evident that the transition to a new environment, such as a college campus, lead students of unique identities to query over belonging with their peers and finding academic support.

Race and Sense of Belonging

When speaking of campus diversity, previous research links positive campus climate with a sense of belonging, especially for students of racial minority. Previous research on Latino students showed that the transition to college held different dimensions of adjustment to emotional health, academic support, and social belonging (Hurtado et al., 1996). In this study, Chicano and other Latino students reported experiencing stress associated with their minority status, psychological sensitivity, and tensions with faculty when compared to White students. In

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researching the sense of belonging of Mexican American students, it sets the stage for understanding that minority students become integrated through specific affiliations that help them attain social and academic skills in large campus environments (Attinasi, 1989). In addition, a national sample study suggests that African American, Hispanic/Latino, and Asian Pacific American students reported a less strong sense of belonging than White/Caucasian students (Johnson et al., 2007). This method of scaling down the accounts of a large campus environment allowed them to cognitively map and form relationships with multiple niches or communities to result in a collective experience of belonging (Attinasi, 1989).

Oliver, Rodriguez, and Mickelson (1985) suggested that discrimination and perception of prejudice results in a feeling of alienation on college campuses. Gilliard (1996) indicated that African American students reported less sense of belonging when compared to White students. African American students' perception of a discriminatory atmosphere has further negative relations to their commitment to the college (Cabrera et al., 1999). Taken together, such research indicates the effect of racial factors in the intergroup relations and belonging of racial minority students and the further need for assessing such parameters in different institutions.

Sense of Belonging of LGBTQ+ Students

Looking at years of literature on the identity development of lesbian, gay, bisexual, and transgender students, there is a consensus that these students develop their sense of identity as they make meaning of themselves in relation to the school environment, familial and communal experiences (Vaccaro et al., 2015). However, such development of identity is met with larger systems of oppression such as unwelcoming and hostile campus climates, resistance from fraternities (Windmeyer, 2005), residential life, and athletic facilities (Bilodeau, 2007).

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In an extensive study, LGBTQ+ students' perception of campus diversity was positively correlated with greater levels of sense of belonging (Parker, 2021). The study highlights the importance of maintaining an institutional representation of diversity and inclusive environments for minority students. Furthermore, it is also evident that distinct aspects of belonging, such as respect, were key in integrating LGBTQ+ students on campus (Parker, 2021). Taken together, it is evident that the establishment of a sense of belonging for LGBTQ+ students occurred over time through social friendships, groups, and university efforts, and is further influenced by the development of their identities and meaningful interactions with peers and faculties around them (Vaccaro, 2016).

Religion and Sense of Belonging

The role of religion changed as America and its educational institutions transitioned from traditionalism to secularization (Mooney, 2010). Understanding the sense of belonging of religiously affiliated students on contemporary college campuses further gives an insight into the social life of students and observe how religion and education are connected. An increasing number of students from different backgrounds are being admitted to college campuses and the limited recent research focused on their sense of belonging on college campuses alludes to the lack of understanding of their experience (Evans et al., 2010), thus it is important to focus on the role of religion on students' sense of belonging.

Purpose of Study

Transitioning from high school to a college campus can alter the social and academic belonging of students as they leave behind a support system of friends and family. Given the unique struggles of minority students, this transition is crucial for finding ways for them to feel safe, respected, and comfortable in a new environment. Previous research shows differences in

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sense of belonging for LGBTQ+ students and racial/ethnic minority students, but it fails to explore the sense of belonging in religious-affiliated students. This topic of study becomes increasingly important as the political and social landscape evolves to put more pressure on minority students, such as Florida's Don't Say Gay bill and multiple states, such as Texas and Alabama, fighting to limit the discussion of critical race theory in classrooms.

According to the enrollment data of 2019, students enrolled at Binghamton University in full-time undergraduate programs are most commonly White Male (29.5%), followed by White Female (28.8%). This leaves the enrollment rate for racial minority students at 13% Asian, 10.4% Hispanic or Latino, 4.75% Black or African American, 2.71% Two or More Races, and 0.0717% American Indian or Alaska Native (Data USA, n.d.). As previous findings suggest regarding the dimensional stress and negative association of minority students on predominantly White campuses (Hurtado, Carter, and Spuler 1996), it is important to further investigate the difference in sense of belonging among minority groups of undergraduate students who attend Binghamton University when compared to students who do not belong to one of the three minority groups: LGBTQ+, racial minority, and religiously affiliated.

Binghamton University and institutions alike have put forth certain rules and efforts to ensure that students of the LGBTQ+ community, people of color, and students who are religiously affiliated feel safe. Belonging to the LGBTQ+ community is defined as anyone who is not a heterosexual, cisgender male or female, and racial minorities include any student who is not Caucasian or white. The reality is that many of these students may feel unwelcome and different due to their social identities (Blakmon et al., 2020). Looking to see if the educational institution these students belong to makes them feel like they are welcomed and valued to ease minority stress is important as it may improve their mental and physical health. A recent incident

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involving the practice of progressive stacking at Binghamton University shows a discourse of opinions regarding a system of classroom integration. This incident puts further emphasis on the analysis of academic belonging of students of minorities in the classroom.

Methods

This study is a quantitative, non-experimental study that aims to examine if any disparities exist between the three minority groups and their white, straight, cis-gender, and non-religious counterparts. Convenience sampling was used in this study. The survey was sent to various undergraduate classes to be distributed by the professor, and the invitation was also sent to group chats on the application GroupMe that were compiled of undergraduate students. Other areas of advertisement included social media sites such as Reddit and Instagram.

Participants

Undergraduate students across all four years of education ($N=112$) from Binghamton University completed the “College Students’ Sense of Belonging Scale” (Ingram, 2012). Eighteen participants were removed from the analysis due to incompleteness or choosing the same option for every question. Therefore, the analysis included 94 participants. Thirty-nine percent of the sample self-identified as being a part of the LGBTQ+ community. The race/ethnicity breakdown of the sample is as follows: Asian, Asian American, Pacific Islander Asian, or Pacific Islander (16.81%); Black or African American (3.54%); Hispanic, Latino, or Chicano (11.50%); White or Caucasian (non-Hispanic) (60.18%); and 7.96% of the sample self-described themselves as not falling into the categories listed. The religiously affiliated made up 39% of the sample, and freshmen were the largest part of the sample with 50% of responses coming from that year. Sexual orientation, race, and religious affiliation were one item categorical questions where participants indicated their identity.

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Measures

Ingram's (2012) three-component model of belonging was used in this study rather than one general definition of belonging as different factors are impacting a student's educational outcome, and they need to be accounted for. In the original study, the factor analysis of the three-component model was found to be reliable and statistically independent (Ingram, 2012). Ingram's findings also suggested that institutional and interpersonal variables jointly explained variance in all three measures of belonging, making them strong predictors of whether the sense of belonging can be influenced by various student attributes (Ingram, 2012).

Perceived institutional support is the feeling that institutional supports and student services are readily available on campus. Academic belonging is feeling respected and supported to do well academically. Social belonging is feeling socially comfortable and connected with peers as a member of the college community. The three components together culminated into a general sense of belonging, which is generally felt as being a part of the college community.

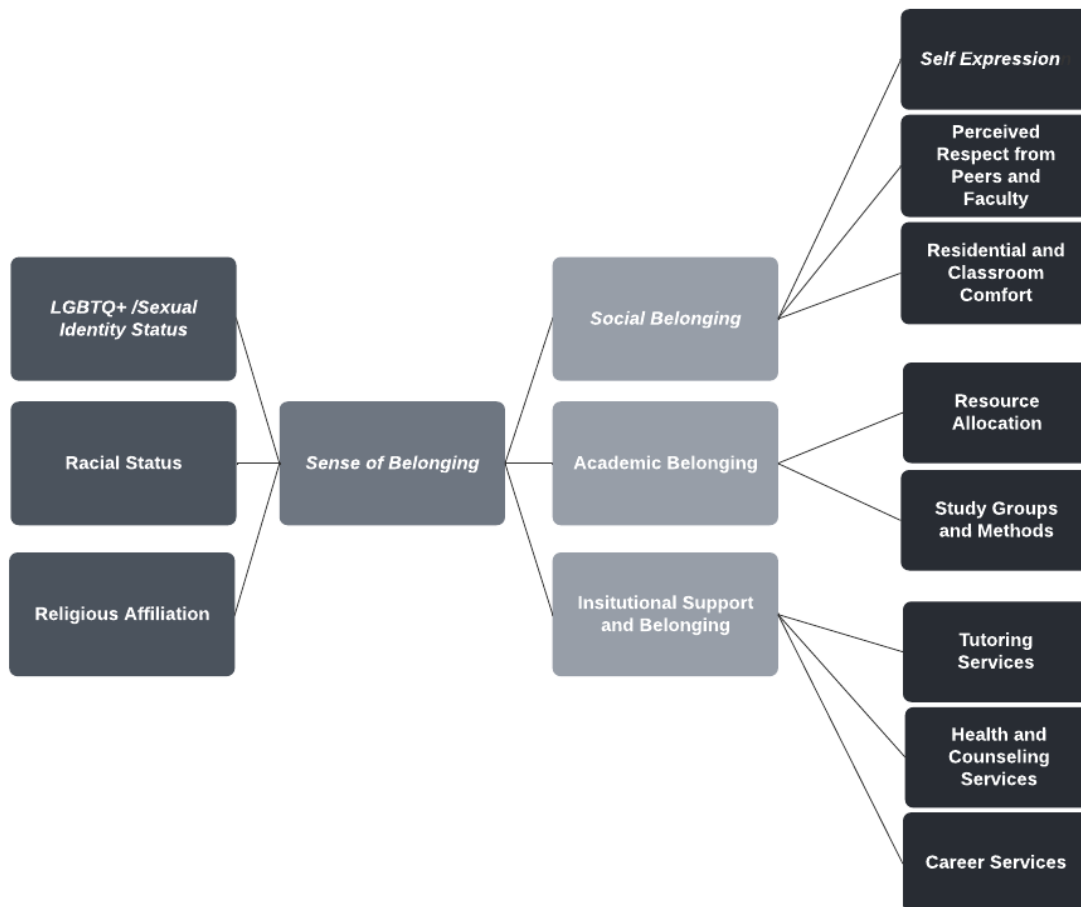
The survey used in this study to measure the sense of belonging among the Binghamton University students was from a dissertation from Stanford University (Ingram, 2012). The "College Students' Sense of Belonging Scale" is an interval scale that contains a 5-point Likert scale from 1 = agree to 5 = disagree. This scale was chosen because the measure covered different aspects that encompass a student's general sense of belonging, as well as the three subscales social belonging, academic belonging, and perceived institutional support. Examples of the items included in the survey are, "I feel as if I am a member of the college community," (social belonging) and "I would feel comfortable asking a professor for help if I did not understand course-related material." (academic belonging). See Appendix A for the full instrument utilized in this study. The different subscales are operationalized separately from

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each other, and together they adequately measure the components that encompass a sense of belonging (see Figure 1). The “College Students’ Sense of Belonging Scale” did not consider LGBTQ+ or religious minority students during its creation, and the research heavily focused on racial minority students. The application of this scale to slightly different groups should not impact results because none of the questions were specific to a certain minority group. The items were put into Qualtrics, and anyone who was not a student at Binghamton University was excluded from the survey.

Figure 1

Illustration of different groups and factors assessed in the survey



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Analysis

The general social, academic, and institutional belonging was assessed through means and standard deviations to analyze the overall sense of belonging in each aspect of college life. Since the survey contained multiple questions that formed a scale, a Cronbach's Alpha (α) test was used to measure the internal consistency and reliability of the scale. Cronbach's alpha was calculated for each of the subscales. The value for general and social belonging was high ($\alpha=.912$), and it risked redundancy. Academic belonging received a score of ($\alpha=.713$), and institutional support had a score of $\alpha=.802$. In the original study, two items were dropped to improve the score of Cronbach's alpha, and included, "Professors make me question whether I should be here," and, "I prefer to study on my own" (Ingram, 2012). The high Cronbach's alpha scores were considered when deciding whether to use this scale (Cortina, 1993), and this scale performed well. The high Cronbach's α values, which values very close to 1, indicate that the multiple questions within each belonging category are intercorrelated with each other and thus, provided a reliable set of questions to measure the respective sense of belonging for each category.

The data collected was put into IBM SPSS and the means of each minority group were calculated, as well as the mean of students who did not identify themselves with a sexual or gender minority, racial minority, or any religious affiliation. Independent t-tests were conducted to compare the different groups and how they scored on the different components of belonging (social, academic, and institutional). The independent t-test allowed for the comparison of the independent groups to determine whether there is statistical evidence that the associated population means are significantly different. The significance threshold is traditionally set at $p =$

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0.05, and the p-value for each sub-belonging was calculated to assess the likelihood of finding a mean difference by chance if indeed there is no difference in the population.

Positionality Statement

When conducting research about minority groups, it is important to understand the identities of the researchers. One author of this paper is an LGBTQ+ student at Binghamton university, and the other researcher is also a Binghamton University student that belongs to a racial and religious minority group. These parts of our identities have an impact on how we experience higher education, and this was the context in which the hypothesis and study design were created.

Results

Table 1 summarizes the descriptive statistics for the overall belonging in each category of sense of belonging: social, academic, and institutional. A score of two indicated that they “somewhat agreed” to the scale item. This indicated that the students that took the survey responded relatively positively. A score closer to three, such as the institutional belonging in Table 1, means that the responses were leaning towards “neither agree or disagree.”

Table 1

Overall Belonging in Social, Academic, and Institutional Setting

Scales	Mean (M)	Standard Deviation (SD)	Cronbach’s Alpha (α)
Social Belonging	2.27	0.92	0.912
Academic Belonging	2.04	0.80	0.713
Institutional Belonging	2.62	1.08	0.802

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Table 2 covers the descriptive statistics for the sense of belonging for the minority groups. A mean of two indicates that they “somewhat agreed” with the states regarding each part of their sense of belonging. Institutional support for the LGBTQ+ and racial minority groups is closer to a score of three, which indicates that they do not hold much of an opinion regarding this part of belonging. The racial minority group’s academic belonging was the only score that ended up in the “agree” category for the statements.

Table 2
Sense of Belonging Subscales in Different Minority Groups

Scales	Mean*	Standard Deviation
Social Belonging LGBTQ+	2.40	0.89
Social Belonging Racial Minority	2.39	0.85
Social Belonging Religious Affiliation	2.10	0.91
Academic Belonging LGBTQ+	2.11	0.75
Academic Belonging Racial Minority	2.00	0.82
Academic Belonging Religious Affiliation	2.03	0.80
Institutional Support LGBTQ+	2.80	1.13
Institutional Support Racial Minority	2.71	1.14
Institutional Support Religious Affiliation	2.52	1.05
General Sense of Belonging LGBTQ+	2.33	0.61
General Sense of Belonging Racial Minority	2.20	0.68
General Sense of Belonging Religious Affiliation	2.11	0.66

*Note: Mean represents the average of the 1 to 5 scale used in the survey, with 1 representing agree and 5 representing disagree.

In the same way, Table 3 is the descriptive statistics for the sense of belonging for the students who did not identify with a minority group. Most of the scores indicate that the students

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“somewhat agreed” with the statements regarding the different aspects of belonging. Academic belonging for people who did not self-identify as LGBTQ+ score had the highest agreement.

Table 3

Sense of Belonging Subscales in non-Minority Groups

Scales	Mean*	Standard Deviation
Social Belonging Non-LGBTQ+	2.17	0.93
Social Belonging Non-Racial Minority	2.19	0.85
Social Belonging Non-Religious Affiliation	2.38	0.92
Academic Belonging Non-LGBTQ+	1.99	0.85
Academic Belonging Non-Racial Minority	2.07	0.81
Academic Belonging Non-Religious Affiliation	2.05	0.81
Institutional Support Non-LGBTQ+	2.49	1.03
Institutional Support Non-Racial Minority	2.59	1.05
Institutional Support Non-Religious Affiliation	2.68	1.10
General Sense of Belonging Non-LGBTQ+	2.18	0.62
General Sense of Belonging Non-Racial Minority	2.26	0.61
General Sense of Belonging Non-Religious Affiliation	2.31	0.62

*Note: Mean represents the average of the 1 to 5 scale used in the survey, with 1 representing agree and 5 representing disagree.

Independent t-tests were conducted to compare the different groups and how they scored on the different components of belonging. For racial minority students, LGTBQ+ students, and religiously affiliated students, social belonging, academic belonging, and perceived institutional support were not statistically significant when compared to non-racial minority students. There was not a significant difference in social belonging ($t(93) = 1.175, p = .243$), academic belonging ($t(93) = 736, p = .464$), and perceived institutional support ($t(93) = 1.358, p = .178$) for LGTBQ+

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students against those who don't identify with the LGBTQ+ minority status. There was not a significant difference in social belonging ($t(90) = -.984, p = .328$), academic belonging ($t(90) = .398, p = .692$), and perceived institutional support ($t(90) = .398, p = .692$) for racial minorities against those who don't identify with the racial minority status. There was not a significant difference in social belonging ($t(93) = -1.463, p = .147$), academic belonging ($t(93) = -.073, p = .942$), and perceived institutional support ($t(90) = -.473, p = .638$) for religiously affiliated students against those who are not religiously affiliated. Lastly, there was no significant difference in the general sense of belonging ($t(93) = -.421, p = .307$) between minority and non-minority students. Minority status did not create a significant difference with general, social, and academic belonging as well as perceived institutional support when compared to the non-minority status group of students.

Discussion

In terms of the LGBTQ+, racial, and religious community at Binghamton University, there was not a significant difference in the different types of belonging when compared to students who did not fall into any of those communities. Within each minority group, the insignificance of the data shows that participants who identified with a minority status did not experience lower levels of social, academic, and institutional belonging (Tables 2 and 3). These findings do not align with prior research that suggests that minority students of color (Hurtado et al., 1996) and sexual identity (Windmeyer, 2005) face systems of stress and oppression climates in terms of their academic and residential life. Previous research suggests that the Latino, African American, and LGBTQ+ communities experienced lower levels of sense of belonging due to the resistance they encountered with their minority status (Vaccaro et al., 2015). Given the reliability of the questions used in this study, further research and significance will allow for a deeper

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analysis of each category of belonging and respective sub-categories covered by the questions (Figure 1).

Even without statistical significance in our data, the survey showed that there were instances where students indicated they struggled to fit into campus and academic life. When comparing the academic belonging of racial minority students, for example, the lower mean of minority participants when compared to non-minority indicates a lower sense of belonging (Table 2 and 3). For such reasons, it is important to highlight some of the resources that Binghamton University provides for an inclusive experience for minorities on campus. The general comparison between the means of minority and non-minority participants showed a similar scale, which indicates that there are instances where students on campus are struggling to belong. Previous research and literature indicate the differential sense of belonging of the three categorical variables used in this study (e.g., Ingram, 2012), which indicates that this study may have failed to capture the accurate measures of belonging in these groups. It is possible that differences in these groups do exist through other means of marginalization such as mental health (Gopalan et al., 2022), which requires further research.

Regardless of their minority or non-minority status, such indications of struggle provide an incentive for further investigation. For example, TRIO programs on campus help students with financial, academic, and social struggles regardless of their background or identity. The Diversity Empowerment Education Program (DEEP) program on campus provides underrepresented students with a variety of services and support. The Louis Stokes Alliances for Minority Participation (LSAMP) program is an educational program that aims to diversify STEM fields on campus through various opportunities. The variety of organizations on campus attests to the different fields of educational and social support that Binghamton University offers

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as an institution. This reinforces Hurtado and Carter (1997)'s argument that a sense of belonging should be emphasized through the interconnectedness of the individual *and* the institution's role in integrating into college.

Limitations and Future Research

This study has shed light on how SUNY Binghamton may foster a sense of belonging among its various minority students, but there are still many limitations to consider. The most prominent one is that Binghamton University is a predominantly white school, with a sizable Jewish student population of 26% (*Hillel International*, 2022). With such a large Jewish community, the impact of being a religious minority may be reduced on Binghamton University's campus. Since the university is predominantly white and convenience sampling was used, there was not an adequate number of minority students surveyed. If there is an effect on campus, it was most likely missed purely due to the sexual, racial, and religious minorities making up such a small percentage of our sample. The data consisted of an unrepresentative sample of the student population at Binghamton University. Therefore, a future research study should be conducted at Binghamton University with an increased sample size. In addition, due to Covid-19, there was a dramatic shift to online learning, discontinuation of in-person events and activities, and social distancing. This swift change in institutions across the nation disrupted the sense of belonging of college students, especially freshmen (Gopalan et al., 2022). Freshmen made up 50% of the sample, so their ability to develop relationships with their peers and professors was limited. Although the restrictions imposed by the pandemic on campus and classroom activities were unanimous among all students, it is possible that the way in which these changes affected social minority groups varied among multiple social identities.

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Another issue was that the t-tests and descriptive statistics reused data from participants. Anyone who indicated they were a part of the LGBTQ+ community was used for the calculations for that group but if they also identified as either a racial or religious minority, their scores were used again for those calculations. Many instances of comparing the same score to each other would mean it would naturally be harder to reach a significant difference. The Covid-19 pandemic also limited results because most students were not on campus at the time of data collection.

For future research, there should be a focus on increasing the sample size of the study to show significant correlations among the different groups surveyed and provide a mean closer to the population mean. Narrowing the inclusive criteria to only freshmen in college can also evaluate the change of transition to college and sense of belonging in a new institution. Future research can also delve deeper into the sense of belonging and the current political, racial, and economic landscape through interviewing a subset of participants. This would yield a mixed method study that will further contextualize and integrate the range of sense of belonging in college institutions. As mentioned before, it is unclear how Covid-19 has impacted the sense of belonging of various minority groups specifically. Further research needs to be done to examine how the consequences of Covid-19 pose unique challenges to the sense of belonging of sexual, racial, and religious minority groups.

Conclusion

This study contributes to the years of scholarly research that indicated the importance of college institutions to further uphold institution support systems and programs so students, especially students of minority status, can get the best social and academic experience. Given the fact that our data indicated no statistical significance, further research needs to be done to assess

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the sense of belonging of minority students at Binghamton University and similar institutions around the nation.

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Jamie V. Vong is an undergraduate attending SUNY Binghamton and was a member of the research team. He helped design the study discussed in this paper, as well as assisted with data collection and interpretation. He was not able to participate in writing this paper.

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Appendix A

College Students' Sense of Belonging Scale (Ingram 2012).

Social Belonging

I feel that I am a member of the College community

Other students here like me the way I am

I feel comfortable contributing to class discussions.

I can really be myself at this college.

I feel I belong at this college.

I could call another student from class if I had a question about an assignment.

Students at this college are friendly with me.

Other students in this college seem interested in my opinions, ideas, and questions related to coursework.

Students here treat me with respect.

I would find it easy to join study groups with other students if I wanted to.

It has been easy for me to make friends at college.

Has any student (e.g., friend, mentor) at Binghamton University helped you adjust and feel socially comfortable?

I see myself as a part of the college community.

Students here treat me with respect.

How SOCIALLY comfortable do you feel in your housing situation this year?

Academic Belonging

I would feel comfortable asking a professor for help if I did not understand course-related material.

I feel comfortable asking a question in class.

The professors here respect me.

Professors make me question whether I should be here.

MEASURING SENSE OF BELONGING

Has any professor or other staff member at Binghamton University helped you adjust and feel comfortable?

I prefer to study on my own.

Perceived Institutional Support:

It is easy to find tutoring support services.

It is easy to find health and wellness support services.

It is easy to find career planning support services.

When I interact with professors at this college, I feel they care about how I'm doing.

It is easy to find counseling support services.