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The Loyola Experience: Increasing Belonging and Retention among Underrepresented Students

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THE LOYOLA EXPERIENCE:
INCREASING BELONGING AND RETENTION AMONG UNDERREPRESENTED FIRST YEAR STUDENTS

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TABLE OF CONTENTS

LIST OF FIGURES

ABSTRACT

Retaining underrepresented (e.g. first-generation and ethnic minority) students remains a challenge within higher education. Fostering a sense of belonging on campus is key to successfully retaining and increasing academic performance among underrepresented students. Peer-to-peer and faculty mentoring provides opportunities to form social bonds and potentially increase belonging. Mentoring may also connect students from underrepresented backgrounds with campus resources, thus contributing to their knowledge and utilization of campus resources, or self-advocacy. I recruited 95 racial minority and first-generation participants. They reported self-advocacy, belonging, grade point average (GPA), and retention intentions. I test whether participation in a mentoring program (versus control) operated through belonging to influence GPA and retention. There was a marginally significant effect of participating in a mentoring program on belonging. Participating in a mentoring program was positively associated with GPA, but unassociated with retention. As predicted, belonging was positively related to retention. There was a significant indirect effect of participating in a mentorship program on retention (but not GPA) that operated through belonging. Future research should investigate the association between participation in mentoring programs and belonging to determine whether this is a causal association of whether a third variable explains this relationship.

Keywords: first-generation, men of color, women of color, belonging uncertainty, retention, GPA

CHAPTER ONE

LITERATURE REVIEW

Retaining students from underrepresented backgrounds remains a challenge within higher education. First-generation and ethnic minority students are at a higher risk for dropout and underperformance during their first year in college compared to continuing-generation and majority group students (Lareau, 2015). First-generation students without at least one degree-earning parent in the home receive lower grades and drop out at higher rates than continuing-generation students (Stephens, Hamedani, and Destin, 2014). These discrepancies in academic success and retention may be explained by a lack of knowledge and resources about college before college and after matriculation (Ostrove and Long, 2007). The success of first-generation and minority students depends on their ability to navigate the college campus and effectively overcome obstacles during the first year of college (Terenzini et. al, 1996). One way to increase performance and improve retention for first-generation and ethnic minority students may be to enhance their psychological sense of belonging by providing student development and engagement initiatives, such as peer-to-peer and faculty mentorship.

Feeling a sense of belonging is key to retaining underrepresented students. Baumeister and Leary (1995) argue that the need to belong is a fundamental human motivation that is linked to health, adjustment, and psychological well-being. Belongingness also plays a key role in cognitive processes and emotional functioning (Walton and Cohen, 2011). For example, when a person feels like they do not belong, they engage in maladaptive behaviors such as dissociation and disaffiliation (Baumeister & Leary, 1995). Students who report low belonging

tend to underperform academically. Walton and Cohen (2007) demonstrated the effects of threats to belonging on student motivation and achievement. They manipulated perceived belongingness among students by randomly assigning Black and White students to name either two or eight friends in their computer science major. The fewer names African American students could produce, the more uncertain regarding their sense of belonging and the less their expectancies of success in their chosen field of study. White students were unaffected by the manipulation. Moreover, African American students with belonging uncertainty were more likely to discourage a same-race peer from entering the field and had a lower GPA than White students. Thus, belonging uncertainty has deleterious effects on minority students' academic trajectory, and achievement.

Participation in peer-to-peer and faculty mentoring initiatives may provide opportunities to facilitate valuable social bonds and to decrease attrition, underperformance, and dropout rates among underrepresented populations. Engagement with peers, faculty, and other university affiliated may be especially beneficial for first-generation and ethnic minority students, as people occupying those roles can provide the necessarily information, perspective, values, and socialization that may compensate for cultural capital that is disproportionately inaccessible to these underserved populations (Lundberg et al. 2007). Mentoring programs that address intersectionality and diverse backgrounds may increase one's sense of belonging on campus and provide access to resources to facilitate academic success. Participation in mentoring initiatives is one way in which underrepresented students can acclimate to the university and potentially increase their belonging.

Mentoring programs may contribute to the academic success of students by empowering and validating their experiences. For instance, difference-based intervention programs are a type

of mentoring on collegiate campuses that is beneficial for first-generation students' sense of belonging. Building on the intergroup paradigm, Stephens, Hamedani, and Destin (2014) developed a difference-education intervention in which students learned to acknowledge differences and why it matters. First-year students who participated in the study were randomly assigned to attend an hour-long panel from upperclassmen about college adjustment: a panel with respect to adverse background characteristics and a standard panel. By providing students with a framework to understand how their backgrounds matter, Stephens, Hamedani, and Destin (2014) hypothesized that difference-education intervention would improve first-generation students' college transition and equip them to better take advantage of college resources. First-generation students who participated in the intervention were shown how their social-class backgrounds can affect what they are experiencing in college. To ensure that the intervention was empowering, instead of stigmatizing, there was an emphasis on how students' backgrounds can be a source of both challenge and strength while providing strategies and resources needed to achieve success. Panelists of low SES said, "Because my parents didn't go to college, they weren't always able to provide me the advice I needed. So it was sometimes hard to figure out which classes to take and what I wanted to do in the future." In the standard panel condition, there were general stories that were not related to social-class background characteristics: "Go to class, and pay attention. If you don't understand something or have a hard time with the material, meet with your teaching assistant or professor during office hours." Stephens, Hamedani, and Destin (2014) expected the intervention to provide first-generation incoming first-year students with strategies to overcome background-specific adversity in the context of social class while improving academic performance in the long run. First-generation students who participated in the difference-focused education had higher GPAs, sought college resources more fully,

experienced less stress and anxiety, and reported overall easier transitions to college (Stephens, Hamedani, & Destin, 2014). Thus, participation in difference-based education programs, like peer-to-peer and faculty mentoring, may increase underrepresented students' belonging on campus and connect them with campus resources needed to succeed in higher education.

Knowing and utilizing campus resources is key to retaining students from underrepresented backgrounds. Mentoring may not only contribute to increased belonging, but may also increase self-advocacy among underrepresented students. Self-advocacy refers to knowledge and utilization of campus resources for an intended goal. Rendon and colleagues (1994) found that first-generation and ethnic minority freshman who were more involved in campus life reported increased academic efficacy and reported more positive expectancies regarding their success in the remaining years of university. These positive outcomes hold true among underrepresented populations, such as ethnic minority and low-income students, who increased their involvement in campus life and frequently visited campus resources as academic writing workshops, office hours, forms, and school-based extracurricular activities (Mahoney & Cairns, 1997). Therefore, mentoring programs that provide ample opportunities for social support and self-advocacy may increase underrepresented students' sense of belonging on campus.

The Current Study

The purpose of the present research is to assess the degree to which mentoring programs offered through Student Diversity and Multicultural Affairs (SDMA) at Loyola University Chicago contribute to a sense of belonging among underrepresented (first-generation, ethnic minority) students, thereby increasing their retention and academic success.

At the beginning of the Fall term, women of color, men of color and first-generation first year students apply to the SDMA Mentorship Experience at Loyola University Chicago. Men of color are eligible to apply for Brothers for Excellence (B4E), women of color can apply for LUCES (Loyola University Chicago Empowering Sisterhood), and first-generation students are able to apply for Students Together Are Reaching Success (STARS). Students in the three initiatives who are accepted are automatically enrolled in an introductory, university-mandated course which is designated for each program. STARS constructs programming on a monthly basis with an emphasis on co-ed peer mentor-mentee relationships whereas B4E and LUCES match mentees with a faculty or staff of color in a one-on-one mentoring relationship. At the end of the Fall and Spring term, mentees complete an evaluation of their experience in the program. The stakeholders in an evaluation are individuals or organizations who are invested in the program and would otherwise be interested in the results of the evaluation. These individuals include the mentees of SDMA'S Mentorship Experience — Students of Color, and first-generation college students at Loyola University Chicago. Students of color are people who identify as African American/Black/African decent, Asian/South Asian/Pacific Islander/Desi American, Middle Eastern, Biracial/Multiracial/Mixed Race/Native American, or Latina/Latino. First-Generation college students are people whose parents or legal guardian have not received a baccalaureate degree in the United States. First-Generation status still applies for individuals whose older siblings have gone to college.

CHAPTER TWO

HYPOTHESIS

I predict that participation in the SDMA mentorship program (compared to a control group) will increase belonging. Belonging will, in turn, increase GPA and retention. That is, I expect mediation such that the effect of participating in a mentoring program will operate through belonging to influence GPA and retention (see Figure 1.)

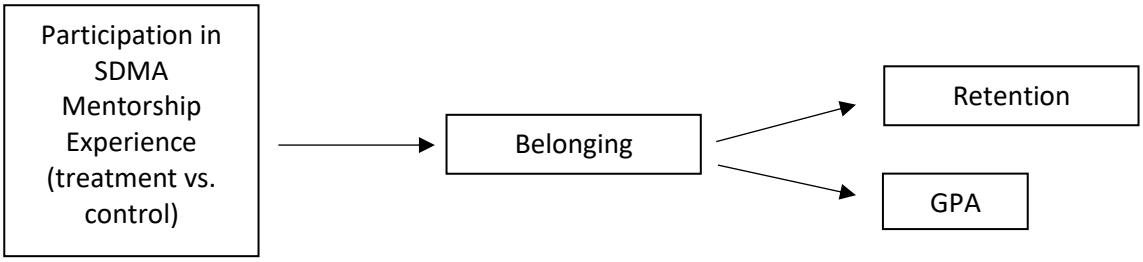


Figure 1. The hypothesized relationship between mentoring, belonging, retention, and GPA.

CHAPTER THREE

METHODS

I recruited 95 participants. Of these, 73 identified as a person of color (22 were Puerto Rican, Latino, Latina, Mexican, or Hispanic; 29 were Vietnamese, Hindu, Asian, Pacific Islander, Indian, Palestinian, Chinese, Middle Eastern, South Asian, or Bengali; 16 participants identified as African American or Black; 5 reported more than one ethnicity. Twenty-two were White. Separately, 64 identified as a first-generation college student and 31 identified as a continuing-generation student.

There were 35 participants in the treatment group. Of these, 32 participants identified as a person of color and three participants were White. Further, 5 were enrolled in Brothers 4 Excellence (B4E); 9 were in Loyola University Chicago Empowering Sisterhood (LUCES), and 21 were in Students Together Are Reaching Success (STARS). Separately, 45 participants identified as first-generation college students and 13 identified as continuing-generation students. There were 60 participants in the control group who were first year students, not enrolled in any mentoring programs. Of the control group, 41 participants identified as a person of color and 19 were White. There were 42 first-generation students and no continuing-generation students.

CHAPTER FOUR

PROCEDURE

Participants in the treatment group were recruited with the help of SDMA office. During the last two weeks of the spring term, SDMA affiliates prompted students to complete the questionnaire as part of their exit programming for each mentorship experience. In a notification email, students were told they could opt-in to a study following the evaluation and receive a $5.00 gift card. The control group consisted of Psychology Research Participation System participants, who were given one hour of credit for participating in the study. Treatment participants first completed the SDMA standard survey and then answered questions about belonging, GPA, and retention. Control participants only answered questions about belonging, GPA, and retention.

Self-Advocacy

Self-advocacy was measured differently for the treatment and control groups. For the treatment group, participants answered two open-ended questions, "How has the STARS/B4E/LUCES program helped you overcome any challenges or connect you to any resources during this year?" and "Name top 2 of your favorite resources to use on campus at Loyola." In the first item, I coded four types of self-advocacy: community or coalition-building (e.g., "STARS has given me a supporting community that makes me feel at home and safe") peer or faculty mentors (e.g., "My mentor has given me important advice that I needed to get through my first year"), support from the SDMA office and affiliates (e.g, "Through the support of my mentor, Paige, Joe, and others mentors/mentees I have truly felt supported and uplifted in

everything I have done"), and specific on-campus resources (e.g., advising offices, writing center, Hub, Office of the Bursar). In the second item, I counted the number of resources they reported knowing about or using. This produced a continuous variable ranging from 0 mentions of campus resources to 3 or more mentions of campus resources. For the control group, I measured self-advocacy using two items, "I am confident that I can use Loyola resources to be a successful student" and "I know a lot about the resources Loyola has to offer students." These items use a scale from 1 *not at all* to 5 *very much*. The items were averaged and correlated moderately (r =.39, p = .01). Due to programming error, the self-advocacy items did not appear on the treatment group survey. Therefore, I cannot directly compare self-advocacy between the two groups.

Belonging

I used Cook, Purdie-Vaughns, Garcia, and Cohen's (2012) 5-item Academic Belonging Scale using a 5-point response scale ranging from 1 *strongly disagree* to 5 *strongly agree*. Items included, "People in my school accept me", "I feel like I belong in my school", "I feel like an outsider at Loyola University Chicago (R)", "I feel comfortable in classes in my school.", and "People at Loyola University Chicago are a lot like me." I reverse-scored one item and averaged the items together to form a reliable scale (α = .81).

Grade Point Average

Participants reported their grade point average (GPA) by recalling their fall GPA and predicting their spring GPA. The following instructions were provided for calculating GPA, "Please self-report your fall and spring GPA. If you not sure, please to the best of their ability. The highest GPA you can earn is a 4.0, which indicates an A average in all of your classes. A 3.0

would indicate a B average, a 2.0 a C average, a 1.0 a D, and a 0.0 an F." Fall and spring GPAs were averaged, as they were highly correlated ($r = .58$, $p < .01$).

Retention

I used Davidson, Beck, and Milligan's (2007) 3-item Degree and Institutional Commitment subscales from the College Persistence Questionnaire. Participants answered, "At this moment in time, how strong would you say your commitment is to earning a college degree, here or elsewhere?" using a scale from 1 *not at all committed* to 5 *very much committed*. Participants also answered, "How likely is it that you will earn a degree from here?" using a scale from 1 *very unlikely* to 5 *very likely*, and "How much thought have you given to stopping your education here perhaps transferring to another college, going to work, or leaving for other reasons? (R)" I reverse-coded the last item and used a rating scale of 1 *not at all* to 5 *very much*. These items were averaged to form a reliable scale ($\alpha = .70$).

Demographics

I asked participants to self-report their race, gender, age, and year in school or current class standing using an open-ended format.

CHAPTER FIVE

RESULTS

Descriptive Analyses of Self-Advocacy

First, I examined reports of self-advocacy for the treatment and control groups. Recall that self-advocacy was measured differently in the two groups and this information is merely descriptive. The treatment group answered the item: "How has the STARS/LUCES/B4E program helped you to overcome any challenges or connect you to any resources during this year?" Participants could mention more than one of the four themes. Nearly one third of participants (31.4%) mentioned feeling a sense of community, 25.7% mentioned mentoring, 8.6% mentioned SDMA, and 17.1% mentioned campus resources. Nearly half (45.7%) of the sample did not mention any of these four themes.

The treatment group also answered the item: "Name your top 2 favorite resources to utilize on campus." Nearly three-quarters (71.4%) of the sample listed two resources. The most frequently mentioned resources were coalition-building and mentoring.

In the control group, a paired samples t-test showed that participants reported feeling more confidence in using campus resources ($M = 4.26$, $SD = .87$), than actual knowledge of what resources Loyola had to offer ($M = 3.82$, $SD = .92$), $t(60) = 3.43$, $p < .001$.

Mediation

I used Hayes' PROCESS Macro for SPSS (Model 4, Hayes 2012) to test the effect of participating in a mentoring program on retention and GPA through belonging (see Figure 2). I calculated one model for retention and another model for GPA.

Bootstrapping is the preferred analysis because it tests for indirect effects even using a small sample with an abnormal sampling distribution. I used 5,000 bootstraps and report the 95% confidence interval.

There was a marginally significant effect of participating in a mentoring program on belonging (*b* = -.29, *SE* = .15, *t* = -1.92, *p* = .058, *LLCI* = -.59, *ULCI* = .01). Contrary to predictions, participating in a mentoring program was negatively associated with students' sense of belonging. Considering the model for retention, participating in a mentorship program was unrelated to retention. As predicted, belonging was positively related to retention. There was a significant indirect effect of participating in a mentorship program on retention that operated through belonging (*b* = -.10, *SE* = .06, *LLCI* = -.26, *ULCI* = -.01). Unexpectedly, students in the control group had a higher sense of belonging than students in the treatment group, and this sense of belonging was positively related to retention.

Considering the model for GPA, participation in a mentorship program was positively associated with GPA (*b* = .22, *SE* = .10, *t* = 2.17, *p* = .03, *LLCI* = .02, *ULCI* = .43). Unlike retention, belonging was unrelated to GPA (*b* =.04, *SE* = .07, *t* = 0.54, *p* = .59). Finally, there was no indirect effect of participating in a mentorship program on GPA through belonging (*b* = -.01, *SE* = .03, *LLCI* = -.08, *ULCI* = .05).

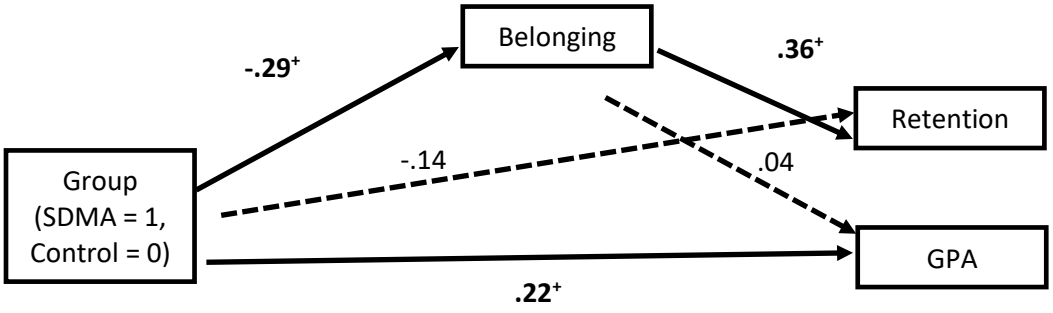


Figure 2. Indirect and direct relationships between mentoring, belonging, retention, and GPA.

CHAPTER SIX

GENERAL DISCUSSION

The present study investigated how participating in a university-sponsored mentorship program may contribute to a sense of belonging, which may then increase retention rates and GPA among underrepresented students (i.e., students of color and first-generation status). I found that participating in a mentoring program had a positive association with GPA, but a negative association with belonging. I also found that belonging was positively related to retention (but not GPA). Moreover, I found an indirect effect of participating in a mentorship program on retention that operated through belonging. However, counter to predictions, participating in a mentoring program was negatively associated with students' sense of belonging. Given the correlational nature of this study, it is difficult to know why these complicated relationships between participation in a mentorship program, belonging, and retention exist.

Walton and Cohen (2007) found that belonging typically has a positive association with GPA and retention among underrepresented university students. For example, in an experiment where Black students were encouraged to attribute doubts regarding their sense of belonging in school as unrelated to their racial identity, Black students in the treatment group had higher GPAs than Black students campus-wide and equivalent to White students. Black students also showed an increase in academic performance behaviors, including participation in review sessions, attending office hour appointments, going to study group meetings, asking questions in class, e-mailing questions to professors, and spending more time studying. Black students in the

treatment group construed social adversity and belonging uncertainty as temporary and common among students of all racial backgrounds, and this increased their achievement behavior and improved their GPA. Similarly, Walton and Cohen (2011) provided a cohort of Black and White students a narrative that framed social adversity as transient, rather than fixed or associated with racial or economic background characteristics. They found that Black students in the treatment group had GPAs on an upward trajectory over time compared to Black students in the control group or Black students campus-wide.

The present study also supports existing research focusing on difference-based education programs. Stephens, Hamedani, and Destin (2014) investigated the effect of background-specific intervention programming among college students from low socioeconomic status backgrounds. They found that students who listened to a difference-based panel that addressed the impact of first-generation status on the overall transition to college had higher GPAs, successfully sought out college resources, and reported an easier transition to college than students who did not listen to the difference-based education panel. Like the difference-based education intervention, students from first-generation and racial minority backgrounds benefitted from monthly programming embedded in the year-long SDMA mentorship experience, which had a positive association with GPA.

One difference between my study and the work by Walton and Cohen and Stephens and colleagues (2014) is that they provided information in a one-time session that separated the idea that one's racial (or socioeconomic) group membership explains everyday adversity on campus. In comparison, the SDMA mentorship programs are year-long and focus on developing the student's identity and leadership skills on campus. This more intensive intervention delivered by SDMA may involve processing racialized incidents on campus or in society, thereby

unintentionally linking identity with adversity and reducing the sense of belonging. It is difficult to tell if this is the case, however, given the correlational nature of this study.

Strengths and Limitations

One strength of this study is that it examined the effects of a year-long mentoring program on student outcomes. The goal of SDMA is to address navigating an elite university campus as an underrepresented student by providing mentorship, multicultural education, academic support, and social support. SDMA aimed to empower these students to become more resourceful and knowledgeable of campus resources while exploring the nuances of social identity during their first year of college. The present study found a positive association between participating in a mentoring program and self-advocacy. In support of the idea that the mentoring program increased self-advocacy, when asked about their favorite resources to utilize, students reported many campus offices along with support from their peer or faculty mentor. This study also found that the mentorship program was beneficial to the academic performance of underserved students, as there was a positive association between participation in the mentoring program and GPA. As mentioned before, students from underserved backgrounds (i.e. racial minority and first-generation students) were more likely to drop out and underperform academically than majority and continuing-generation students (Lareau, 2015). The long-term consistency of mentorship may have contributed to the increase in academic performance as students from underrepresented groups fostered connections with faculty and peers.

Regarding limitations, my study faced a potential selection effect. Selection effects typically occur when participants are selected into the study in a way that does not make them representative of the population that is to be analyzed. Selection is a threat to internal validity, or the ability to draw firm conclusions from the data. My treatment and control groups were

composed of different types of underrepresented students. At the beginning of the academic year, students from the treatment group applied and were selected for one of three SDMA mentorship experiences (i.e. B4E, STARS, LUCES), whereas the control group was drawn from a participant pool of introductory psychology students of color and first-generation status. It is important to note that the treatment group mainly consisted of people of color, whereas the control group primarily consisted of White first-generation students. Perhaps this is because of the overrepresentation of White students at Loyola, a predominantly White Institution, or PWI. Despite their first-generation background, students from majority groups may enter PWIs with a higher sense of belonging compared to their racial minority counterparts. Cohen et al. (1999) have suggested that majority students experience social belonging when their intellectual skills are evaluated, such as in a university context. Thus, the higher sense of belonging in the control group may have been due to the fact that they were mainly White first-generation students, rather than having anything to do with an adverse effect of the mentoring program.

Programming errors meant that I was missing several items crucial to the analysis regarding self-advocacy. This meant that I could not compare the control and treatment group's self-advocacy and test part of my intended hypothesis. Including these questions about self-advocacy would have allowed me to the test whether knowledge and utilization of campus resources, or self-advocacy, different between the treatment and control groups. Therefore, a potentially important benefit of the year-long mentoring program was not assessed.

Additionally, I may have a history effect in the data. A history effect refers to the effect of any event(s) that occurred within or outside of an experiment that might account for the results. A racially charged incident occurred just before data collection. Students were protesting the university's budget priorities during the men's basketball game, when they witnessed police

stopping and frisking two Black men inside the student center. A Black student questioned the officers and was detained, thrown to the ground, handcuffed, and arrested. Another student who attempted to intervene was choked by an officer. Student protests occurred in the weeks following this event, drawing attention to racial profiling on campus. History effects are particularly likely to influence subject variables such as the sense of belonging. This would especially influence the sense of belonging for students in the treatment condition who were mostly racial minority group members. It would have less of an effect on the belonging reported by the mostly White first-generation students in the control group.

It is important to acknowledge the potential of mentoring programs to unintentionally make students more aware of their stigmatized status, and therefore threaten their sense of belonging. This study is correlational in nature, but could benefit from a longitudinal framework that assesses changes in the outcome variables over time. Ideally, the study would also be replicated with a more representative control group in order to clarify whether this effect is the due to the mentoring programs or to the composition of the treatment and control groups.

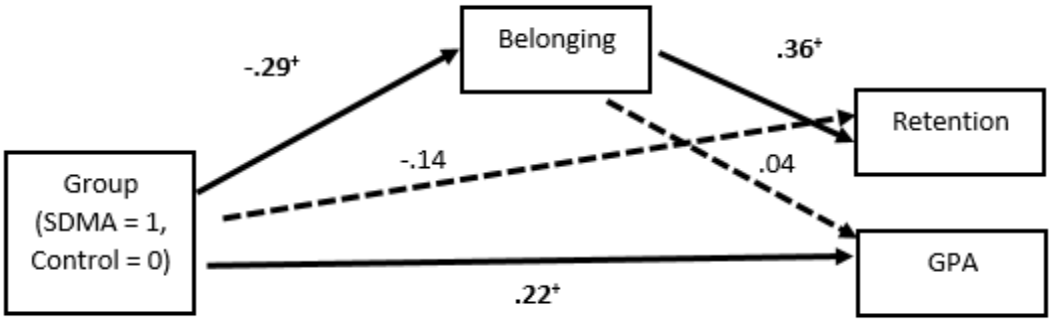
Conclusion

The present research found some evidence for the positive impact of participating in a mentorship program on GPA. GPA is especially important for students' future success in predicting their upward academic trajectory and bolstering their overall commitment to earning a college degree. This project contributes to the growing knowledge regarding minority student achievement in higher education with specific aims to retain students by increasing their sense of belonging. For example, existing research has suggested that the frequency and quality of relationships with a mentor has a positive effect on grade point average for Black and Latina/o students (Lundberg et al. 2007). Additionally, Ostrove and Long (2007) found that the

graduation and retention rates and GPAs of TRiO students exceeded those of similar students who were not enrolled in the TRiO program. The present research could potentially inform more comprehensive programming in higher education that provides resources, demystifies common doubts surrounding social identity, increases belonging, retains students, and increases academic underperformance (i.e. GPA) among minority students.

Figure 1. The hypothesized relationship between mentoring, belonging, retention, and GPA.

Figure 2. Indirect and direct relationships between mentoring, belonging, retention, and GPA.



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