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Randomized Evaluation of an Intervention to Enhance a Sense of Belongingness Among Entering College Students

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Abstract

This study examined an intervention designed to improve sense of belongingness for new students at a medium-sized, four-year, public university in the Eastern United States. A randomized controlled trial was used to assess the impact of *The Connection Project*, a novel, 9-session intervention in a sample of 128 first-year students (77 treatment, 48 waitlist control). Given the onset of COVID-19, students received a hybrid in-person/online intervention. At post-intervention, the intervention group reported a significantly higher sense of school belongingness, after accounting for baseline levels, than control group students. Post-hoc analyses of moderation by demographic variables indicate that the intervention functioned similarly for students from a variety of backgrounds in this sample. These results are interpreted as suggesting the potential value of this intervention to promote a sense of community and connection among new students in college, whether delivered in-person or online.

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The role that social factors play in lifelong physical and mental health has garnered increasing attention over the past decade (Allen et al., 2015; Holt-Lunstad, Smith, & Layton, 2010; Holt-Lunstad, Robles, & Sbarra, 2007; Kiecolt-Glaser et al., 2005; Smith, Glazer, Ruiz, & Gallo, 2004). Interest in prevention programming has also grown, with a particular emphasis on peer support and an overarching goal of capitalizing on the identified links between social connection and well-being (Blum, 2005; Wingspread, 2004). *The Connection Project* was developed in response to this call, with a focus on scaffolding students' sense of belongingness at their university.

Belongingness Theory posits that humans have a fundamental drive to belong, and that failing to do so causes significant cognitive and affective distress (Baumeister & Leary, 1995). "Belongingness" in a given community reflects connection to that community across multiple levels: individual relationships with others in the community, commitment to the community, a desire to contribute to the community, and a sense that one's own abilities are valued by the community (Pittman & Richmond, 2008). Upon entering college, young adults are faced with a large, new population of potential close others to forge relationships with and a new social culture to navigate--a new community to which they must learn to belong.

Feeling like one belongs at a university is far from a given, of course, and many students struggle with the transition to college. For instance, students who are less extroverted, who struggle to self-affirm, or who attend a larger university may find it more difficult to develop the sense that they belong, contributing to lower rates of retention (Layous et al., 2016; Lounsbury & DeNeui, 1996; Talaifar et al., 2021). In addition to struggling with belonging in the specific

university context, young adults appear to be struggling with their social connections, in general. Traditional college-aged individuals (ages 18-24) systematically report elevated loneliness levels in comparison to all other age cohorts in America. This cohort has also shown an upward trend in depression, with symptom levels rising 63% over the past decade (Twenge, Cooper, Joiner, Duffy, & Binau, 2019). The rise in depressive symptoms has been accompanied by a 60% increase in Emergency Room visits following suicide attempts, suggesting that this is not simply an artifact of increased willingness to report these symptoms (Twenge et al., 2019). Despite the prevalence of serious mental health difficulties among young adults (depression, anxiety, suicidal thoughts and behaviors, and alcohol use disorder), less than a quarter report that they would seek treatment, due to lack of access to treatment and stigma associated with treatment (Bruffaerts et al., 2018; Ebert et al., 2018). Furthermore, lacking a sense of belonging may create particular risks for the current cohort of students, who now face social isolation and significant uncertainty imposed by COVID-19 (Beam & Kim, 2020). Long-term social isolation, while necessary for combatting virus transmission, may ultimately contribute to a different sort of public health concern: lack of human connection.

Developing methods to foster connections among students in university communities may help to reduce the risk faced by traditional college-aged individuals. Research repeatedly suggests that students benefit from developing a sense of connection and belongingness within their university community (Moeller, Seehuus, & Peisch, 2020; Pittman & Richmond, 2010; Asher & Weeks, 2012; Van Orden et al., 2008). The role of belongingness may be particularly pivotal during students' first year of enrollment. The transition to college introduces major social, emotional, living, and academic changes along with a new level of independence and, for some students, significant financial burden. Although many students successfully manage this

adjustment, others struggle. In 2017, 38% of students enrolled in public, four-year institutions dropped out of school without completing a degree (National Center for Education Statistics, 2020a). Historically, students have provided a variety of reasons for dropping out, including academic difficulty or disinterest (Bradburn, 2002). More recently, mechanisms have been proposed that link academic difficulty to social factors, such as difficulties with 'belonging uncertainty.' If a student believes that "people like me do not belong at this school," they may experience increases in symptoms of depression, difficulty achieving academic goals, and dampened motivation or ability to engage in school (Walton & Cohen, 2007). Furthermore, a lack of connection to a community of peers is a strong correlate of school dropout and risky sexual and substance use behaviors (Crosnoe, 2011). If connections and feelings of belongingness can be fostered, interventions may indirectly target these behaviors.

At this intersection of identified risk to students and unprecedented global circumstances, the natural drive to belong may be a key component of prevention and intervention work. By leveraging young adults' desire to connect to one another and their community, we may begin to address the large proportion of students who face difficulties and do not seek professional help. Students' sense of belongingness has been identified as a strong correlate of adaptive outcomes, including academic self-efficacy, intrinsic motivation, social acceptance, and positive perception of their instructors (Freeman, Anderman, & Jensen, 2007). This sense of belongingness, while potentially related to the quality of close friendships a student develops at school, also appears to function in unique ways. For instance, school belongingness has been identified as a strong correlate of academic performance, academic competence, and self-worth, even after accounting for the quality of students' close peer relationships within the school community (Pittman & Richmond, 2010). Scaffolding a broad sense of belonging within a university (rather than

focusing solely on one or two close relationships) may strengthen students' academic and psychological functioning.

The need to reach college students becomes more pressing as the pool of university students continues to grow. A large number of young people in America are pursuing higher education, with 41% of 18-to 24-year-olds enrolled in 2018 (National Center for Education Statistics, 2020b). High rates of college enrollment present an opportunity to reach a large swath of at-risk young adults. The varied long-term risks of disconnection may be exacerbated in the face of current, necessary physical distancing as well as the stress imposed by navigating the uncertainty of a global pandemic. *The Connection Project* aims to provide students with a unique social learning experience that enhances sense of belongingness by promoting vulnerability and support among incoming university students, that can be offered through in-person or online formats.

Hypothesis

This randomized controlled trial was implemented to evaluate the potential impact of *The Connection Project* on entering students' experience at a 4-year public university. The study investigated the hypothesis that students who participate in *The Connection Project* will endorse significantly greater feelings of belongingness at the university than students in a control group.

Method

Setting and Sample Characteristics

The current study sampled first-year and transfer students from a medium-sized public university in the Eastern United States (N = 128, M_{age} = 19.05, SD_{age} = 1.03, min_{age} = 18.01, max_{age} = 27.15; 33 men, 94 women, and 1 nonbinary participant). Students' self-identified racial group approximately mapped onto the broader university race distribution, with slight elevation

in representation of minoritized racial groups. According to participants' self-identified racial group, the sample included: 11 Black participants (8.66%), 56 White participants (44.09%), 7 Hispanic participants (5.51%), 44 Asian/Pacific Islander participants (34.65%), 6 Multi-ethnic participants (4.72%), and 3 Native American participants (2.36%). The mean and median reported family income for the sample was in the $50,000-$100,000 range. Full data on baseline demographic characteristics by intervention/control status is presented in Table 1.

The Intervention

The Connection Project (College Version) is based on *The Teen Connection Project*, an experiential belongingness intervention developed for 9th grade high school students that has shown promise in promoting increased quality of peer relationships, academic engagement, and reduction in depressive symptoms in a randomized controlled trial study (Allen, Narr, Nagel, Costello, & Guskin, 2020). Program content was adapted to make it more engaging and age-appropriate for groups consisting of primarily 18-to-19-year-olds.

The Connection Project consists of nine 60- to 75-minute sessions held once per week as an extra-curricular activity during a semester in the first year of students' attendance at a University. Students meet in groups of four to twelve students led by two trained facilitators. Facilitators guide discussions and provide a safe source of support while modeling appropriate levels of self-disclosure for group members in discussions.

The program is designed to gradually change students' sense of belongingness by facilitating supportive give-and-take among group members. By showing group members the value of vulnerability and the social rewards associated with connecting to others, it is expected that social development within the program group can extend outward to their broader peer group. By shaping incoming university students' perceptions of their peers as accepting and

potential sources of support, we expect the intervention to have longer-lasting effects on students' belongingness at the university, going forward.

Sessions pull from existing empirically supported micro- and single session-interventions and are organized into a three-phase progression: 1) establishing buy-in and group context, 2) developing and enhancing social belonging, and 3) consolidating relationships. For example, the first session employs a values affirmation activity in which quotes about the value of friendship and social connection from a variety of sources are posted around the room and students are asked to place stickers on their favorites. Students then select one quote that they like best and are asked, in turn, to describe why they chose that quote. This activity serves two purposes: it helps group members identify and articulate their personal prosocial values *and* explicitly identifies prosociality as a group-level value. Each individual experiences multiple layers of value affirmation by personally articulating the value, hearing peers assert similar values, and engaging with statements from a range of famous figures that all express the importance of connection (Cohen, Garcia, Apfel, & Master, 2006; Clapp-Smith, Vogelgesang, & Avery, 2009). This activity contributes to Phase 1 (establishing buy-in and group context) by establishing the group's common goal and purpose, and motivates individuals within the group to explore their own beliefs about the value of connection and re-affirms those beliefs through the act of expressing them to the group (Arkowitz, Miller, & Rollnick, 2015).

Activities are gradually introduced that enhance group members' sense of social belonging within the group (Phase 2), by identifying shared experiences and common elements in the things that they think, feel, and experience (Walton & Cohen, 2007). One session asks group members to consider the ways that they present a false image of themselves (nicknamed "masks") in order to cover up their real feelings (e.g., "I act like I don't want to fit in with what

other people think is good, *but I really do want to fit in*," "I act like everything is great and fine, *even when sometimes it really isn't*," etc.). After group members anonymously indicate the masks that they have personally used, overall group results are consolidated and revealed. In a facilitated follow-up discussion, students reflect on the shared ways that they cover up their feelings, and how this relates to their ability to connect authentically with others.

Other opportunities are presented for group members to reflect on challenges and experiences shared by students at their university. For example, students read brief vignettes from more senior students who describe their experiences of discouragement, homesickness, and social isolation upon starting college, and how they overcame it (based on the social belongingness paradigm in Walton & Cohen, 2011). Follow-up discussion offers group members the chance to express their emotional reactions to others' stories and share information about their personal experiences starting college.

As trust continues to grow through repeated experiences of affirmation and support within the group, the program offers increased opportunities for voluntary vulnerability and self-disclosure. For example, in an activity titled, "If You Really Knew Me…," students anonymously respond to prompts such as, "*If you really knew me, you'd know that the thing I worry most about is…*" Responses are collected and read aloud by a facilitator, who then leads the group through a discussion about what makes trust and vulnerability difficult, processing the experience of listening to peers' stories and being vulnerable with the group.

Relationship development is consolidated throughout the final three sessions through multiple mechanisms. With the group, students work to craft meaningful narratives from challenges that they have faced by identifying the strength, lesson, or growth that they took away from meaningful, difficult experiences. This is informed by Narrative Theory, which describes

how the process of developing a coherent understanding of life experiences enhances functioning (Pennebaker, 2012; Pennebaker, Kiecolt-Glaser, & Glaser, 1988; Pennebaker & Seagal, 1999). This activity also expands on the benefits of a resilience narrative by offering the opportunity for voluntary sharing of personal challenges. Facilitators guide the group in offering support to group members who share stories, scaffolding a success experience with peer vulnerability *and* providing a safe space to practice offering support to one another. This not only allows group members to *experience* that they are not alone in their struggles, it also scaffolds social skill development and allows for group members to get to know and support one another in a deep way.

These belongingness gains culminate in a "strengths bombardment" activity, fueled by the socially supportive experiences that groups have engaged in over the course of the intervention. Each student takes a turn being the focal student while group members describe the strengths that they value in that person as an individual and a group member. This activity is designed to promote positive perceptions of the self and of peers, in order to motivate engagement in and maintenance of future peer connections within and outside of the group.

Procedure

Recruitment

Students were recruited through existing channels of extra-curricular recruitment used by university clubs and activities, including: flyer posting, interest meetings, email announcements, contact with Housing and Residence Life staff, and recommendation by the Office of Student Affairs. Students over the age of 18 provided informed consent online. No students under the age of 18 enrolled in the study, so parental consent was not sought for this sample. Informed consent and pre-intervention survey data were obtained prior to randomization.

Randomization Procedure

Randomization took place using a random number generator, with randomization blocked by students' self-identified gender and racial group. Of each demographically similar block, 2 students were assigned to the waitlist-control group for every 3 students assigned to the intervention group (slightly reducing statistical power but maximizing utilization of available resources for program implementation). This resulted in the generation of comparable intervention and control groups (See Table 1). Intervention students then met once per week for 9 weeks during the semester as an additional extra-curricular activity; control group students engaged in their first-year schedules and extra-curricular activities as usual.

Group Assignment

Students randomly selected into the Intervention group were placed into groups based on shared availability between the group members and two facilitators. Each group initially contained eight to twelve members; however, participant drop out caused some group sizes to shrink as low as four participants. In the interest of providing the intervention and maintaining the structure of the study, those groups proceeded as usual through the curriculum despite their small size.

Facilitator Training

Intervention groups were facilitated by two research staff: at least one graduate student on the research development team, paired with a trained undergraduate research assistant. Graduate facilitators were all at least B.A.-level Psychology students, with various levels of additional clinical training. Supplemental training on the intervention and facilitation was provided to graduate facilitators by the authors. Undergraduate facilitators were trained in a 2-day workshop led by the authors, with 2 additional "booster" training sessions provided

throughout the course of the intervention. Weekly in-person supervision was provided to address unexpected issues that arose in the groups and to continue the training process in real time.

Online Adaptation

In March 2020, after approximately 4 in-person meetings, the intervention was shifted to virtual group meetings on Zoom to accommodate participation after the onset of COVID-19 and campus-wide evacuation. As part of the shift to online implementation, an additional, primarily unstructured session was added in between meetings 4 and 5 to support students and facilitators in developing comfort using Zoom for meetings. Subsequent curriculum elements were adapted where necessary to accommodate the shift to virtual meetings (for instance, if activities required movement around the room, they were adjusted for the online platform). Discussion-style activities were largely kept intact, with the addition of some targeted questions to address the specific stressors students were facing with the onset of COVID-19.

Data Collection

Measures were obtained at two time points, with intervention and control group data collection occurring simultaneously: prior to the beginning of the intervention and in the two weeks immediately following the intervention. Surveys were administered using Qualtrics at the beginning and end of the program implementation semester (Spring 2020). Participants were compensated with a $20 Visa gift card for the first survey that they completed and a $30 Visa gift card for the second survey that they completed.

Session Attendance

Participants' median attendance was 8 of 10 sessions; modal attendance was 9 of 10 ($M = 6.43$, $SD = 3.70$).

Measures

University Belongingness. Students reported on the extent of their feelings of belongingness at their University using the 18-item Psychological Sense of School Membership Scale (Goodenow, 1993). This measure, initially written for high school students, has undergone small language adaptations and demonstrated validity in college-aged samples (Pittman & Richmond, 2007; 2008). Students responded to items such as, "Other students here like me the way I am," "I can really be myself at this school," and "I feel like a real part of [University]" on a scale of 1 = *Not at all true* to 5 = *Completely true*. Relevant items are reverse scored and items are summed to produce a summary score for each participant. Scores on the Psychological Sense of School Membership scale have been shown to correlate with student-reported motivation, grades, and teacher-reported effort in school and have demonstrated acceptable-to-high internal consistency across multiple schools with diverse racial makeups (α's = .77-.88; Goodenow, 1993). Scores on this scale have also demonstrated a relation to psychological adjustment during the transition to college, student GPA, self-esteem, and locus-of-control among students from a wide variety of gender, racial, and socioeconomic backgrounds (Pittman & Richmond, 2008; Aspelmeier et al., 2012). Thus, this measure was selected for its utility in measuring belonging as well as its utility in measuring important related constructs. Internal consistency for this sample was excellent (Cronbach's α's = 0.92, 0.94).

Demographic Variables. Participants reported on their self-identified gender, ethnic group, estimated household income, and their parents' educational attainment (see Table 1). Due to limited sample size of any given racial/ethnic group, analyses were run using a binary variable that coded for minority vs. majority group membership. Educational attainment was collected for both biological mom and biological dad, coded as 1 = *less than high school*, 2 = *high school graduate*, 3 = *some college*, and 4 = *college graduate or higher*. The maximum educational

attainment score between mom and dad was used in analyses to represent parental educational attainment.

Attrition Analyses

Of the 128 students that participated in the pre-intervention assessment, 117 (91.4%) also participated in the post-intervention assessment. Participants who dropped out of the study did not differ on any demographic variables (gender, parental educational attainment, familial income, minority racial status), group vs. control status, or baseline psychological sense of school membership. Thus, attrition is not believed to have distorted representation of students in pre- vs. post-intervention survey collection.

Further attrition analyses were performed to determine whether students' participation in *The Connection Project* was somehow related to baseline belongingness or demographic qualities, particularly in light of the mid-semester transition to online delivery of the program. Of the 77 students who were randomized into *Connection Project* groups, 13 never began attending. These 13 students did not systematically differ from students who participated on demographic characteristics or baseline belongingness. Of the 64 students who joined and attended a group, 50 (78%) continued attending after program delivery went remote, as evidenced by their presence in at least one of the two sessions immediately following the shift to online. The 14 students who dropped out were disproportionately likely to have at least one parent who attended college ($F = 8.22$, $p < .001$) and endorsed slightly lower levels of baseline belongingness in comparison to students who remained in groups ($F = 2.16$, $p = .02$). Importantly, students with slightly lower baseline belonging were less likely to continue in this program once they were sent home due to the onset of the pandemic.

Results

Analytic Strategy

Analyses were conducted using an intent-to-treat design, and SAS PROC MIXED for multi-level models to account for the nesting of students within groups (Raudenbush & Bryk, 2002; Singer, 1998). The Level 1 model (Equation 1) specified that student post-intervention assessment scores on measures were a function of the baseline scores on those measures, gender (coded such that 0 = *Man*, 1 = *Woman*), student racial/ethnic minority group membership (0 = *White*, 1 = *Minoritized racial group*), and highest level of parent education achieved.

$$Y_{ij} = \beta_{0j} + \beta_{pj}\,(\text{pretest}) + \beta_{cj}\,(\text{student demographics}) + r_{ij} \qquad \text{[Eq. 1]}$$

In the Level 2 model, study condition (0 = *Waitlist control*, 1 = *The Connection Project intervention*) was entered. The magnitude and direction of the coefficient (γ_{0c}) indicates the associations between the outcome measure of interest (accounting for baseline factors) and whether they participated in the *The Connection Project* intervention.

$$\beta_{0j} = \gamma_{00} + \gamma_{0t}\,(\text{group}) + \gamma_{0c}\,(\text{intervention status}) + u_{0j} \qquad \text{[Eq. 2]}$$

To aid in interpretation, all variables were standardized prior to conducting these analyses except intervention status, which was dummy coded such that 0 = *Waitlist Control* and 1 = *Intervention*.

Primary Analyses

Hypothesis: Students who participated in* The Connection Project *will endorse significantly greater feelings of belongingness at the university than students in the control group.

After accounting for baseline and for students' demographic characteristics (gender, minority status, and parental educational attainment), significant effects of the intervention at

post-intervention were observed for students' school belongingness ($B_{intervention}$ = .31, p < .01, 95% CI [.09, .54]). In support of the hypothesis, intervention students displayed statistically significantly greater post-intervention Psychological Sense of School Membership than control group students. Students who participated in *The Connection Project* endorsed relative gains in school belongingness of .31 standard deviation units. Results are presented in Table 2, Figure 1.

Post Hoc Analyses

To examine whether the intervention was more or less effective with students with different demographic characteristics, analyses investigating the potential moderation of demographic variables by intervention/control group status were performed by creating interaction terms after standardizing the variables. No evidence of moderation of treatment effects by gender, familial income, minority/majority ethnic group status, or parental educational attainment was identified. This indicates that *The Connection Project* did not function significantly differently across a variety of student demographic characteristics.

Discussion

This study found that *The Connection Project* was successful in fostering a sense of belongingness among new college students. Effects were comparable for students from a range of gender, socioeconomic, and ethnic backgrounds, providing preliminary support for *The Connection Project*'s utility as an intervention applicable to a broad array of students. Furthermore, these results were identified in the context of a school-wide evacuation in response to COVID-19, suggesting that the intervention may be useful in both in-person and online modalities.

This study is the first to examine the functionality of *The Connection Project* in fostering belongingness among college students. Prior work has demonstrated the effectiveness of *The*

Teen Connection Project (on which *The Connection Project* is based) in promoting connectedness among groups of high school freshmen (Narr, 2019; Allen et al., 2020). This study provides evidence that elements of functional social-emotional interventions for adolescents may be appropriate for incoming college students, as well. Furthermore, these findings support *The Connection Project*'s potential to scaffold belongingness even in the face of immense uncertainty and turbulence for this population. While work remains to understand how this intervention functions when students receive the entire program in-person, these findings suggest that this intervention's effects were not counteracted by COVID-19-imposed stress and the need for *ad hoc* program adjustments.

At the onset of the pandemic, the research team was somewhat hesitant to move forward with the intervention as planned, out of concern that students may struggle to engage with the program. The expectation was that *The Connection Project* may not function as initially intended in the midst of widespread unrest and confusion. In retrospect, facilitators, participants, and research team members reflected that the intervention groups appropriately addressed many relevant social concerns, primarily stress and loneliness associated with social isolation. In the face of COVID-19, traditional college-aged individuals have continued to report the highest levels of loneliness among American adults, putting them at increased vulnerability for physical and psychological health challenges later in life (Luchetti et al., 2020; Allen, Uchino, & Hafen, 2015; Holt-Lunstad, Smith, & Layton, 2010). With the indefinite nature of social distancing requirements and the risks associated with chronic loneliness, the need for prevention efforts that can operate flexibly and effectively across in-person and online modalities is becoming increasingly evident (Fakoya, McCorry, & Donnelly, 2020). It is unclear whether the stress of the pandemic attenuated the strength of these findings by making the intervention more difficult

to attend, reducing its in-person component, and involving students when they are more emotionally taxed. It is also possible that the shared experience brought on by COVID-19 actually bolstered these effects by providing a common challenge around which students had to rally and support one another. Further efforts are necessary to disentangle the relationship between external stressors and the functioning of *The Connection Project* groups. However, it is promising that even during complete physical removal from campus, these students still demonstrated gains in belongingness to their University.

Additionally, the demonstrated capacity of *The Connection Project* to function both in-person and online highlights an exciting opportunity for prevention and intervention efforts. Maximally accessible programming may offer one route to address the sizable number of college students who do not seek mental health treatment due to stigma or availability (Bruffaerts et al., 2018). If students can attend program meetings via video link from a variety of locations, interventions can flexibly support students who cannot or will not attend in-person. This study provides preliminary evidence that experiential learning goals *can* be achieved online, as well as in-person. Further efforts must be made to compare differences in these modalities.

Several limitations warrant consideration. First, sample size was modest, though sufficient to detect findings of this magnitude. The current sample size provided limited power to examine potential differences in program effectiveness for students from specific racial/ethnic groups, and as such students were grouped into White/Minoritized status codes, which leaves some nuance unstudied. Additionally, without prior knowledge of the impending pandemic, inferences are limited regarding the interplay between COVID-19-related stress, normative college-related stress, and the functioning of this intervention. Finally, students who endorsed slightly lower baseline belongingness were more likely to attrit from the program upon the shift

to online administration, suggesting that more work may need to be done to foster buy-in for the students who are struggling the most.

Despite these limitations, this study highlights several important concepts that may be leveraged by Student Affairs and other University personnel. Primarily, we have demonstrated that university students are *motivated* to participate in social-emotional programming based on their low rate of attrition and high rate of attendance. Students took this on as an optional extracurricular activity, which they maintained even during the transition to remote learning and the accompanying stress and potential barriers to participation. Implementation of structured group programming may offer one route to address students' hesitation to seek psychological supports from traditional counseling services (Bruffaerts et al., 2018; Ebert et al., 2018). Although this program is not a replacement for mental health services, it may offer a first-line of support for students who are struggling, and these findings suggest that students who participate in this program endorse psychological benefits. Furthermore, these preliminary results suggest that this intervention functions most effectively for students from minoritized racial backgrounds, students from relatively low SES households, and transfer students; groups that many universities are seeking to better support.

These implications pair closely with future directions planned for this research team and encouraged for other research teams. One important element of this future work will be to consider how social-emotional interventions may function differently across universities. Other work has suggested that context plays a key role in the implementation of this intervention in high schools, particularly for marginalized students (Nagel, 2020). To understand this nuance, evaluation and replication efforts may investigate the implementation of *The Connection Project* across different universities, using different facilitator training, and with continued refining of

curriculum elements. Future work may also evaluate the effectiveness of peer and paraprofessional implementation of this program, in order to promote scalability of the intervention and to involve highly motivated undergraduates in the program as facilitators. Although evaluation and iterative improvement of *The Connection Project* is ongoing, the current study suggests the potential of interventions to scaffold belongingness among groups of new students at a university. These preliminary results set the stage for continued efforts to promote students' well-being and success through experiential intervention programming by highlighting students' motivation to participate, the utility of remote intervention, and the ability to scaffold meaningful, supportive relationships among university classmates.

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Table 1.
Entry Characteristics of Intervention and Control Groups at Baseline

	Intervention ***N* = 77**		**Control** ***N* = 48**	
	Mean (SD)		**Mean (SD)**	
Highest Level of Parental Education	3.83 (0.47)		3.73 (0.71)	
Family Income	4.65 (0.20)		4.58 (0.16)	
Baseline Psychological Sense of School Membership	65.94 (12.56)		66.79 (12.44)	
	N	**%**	***N***	**%**
Student Gender	Man: 22	28.6	Man: 11	22.9
	Woman: 55	71.4	Woman: 36	75
	Non-Bin: 0	0	Non-Bin: 1	2.1
Student Race/Ethnicity	Black/Afr-Am: 8	4	Black/Afr-Am: 8	16.7
	White: 19	47.4	White: 19	39.6
	Hispanic: 3	5.3	Hispanic: 3	6.3
	Asian/PacificIs: 15	35.5	Asian/PacificIs: 15	31.3
	Multi-ethnic: 2	5.3	Multi-ethnic: 2	4.2
	NativAm: 1	2.6	NativAm: 1	2.1

Note: There were no observed statistically significant differences in control vs. intervention group. Significance of group differences for student race/ethnicity was calculated for minority vs. White group membership status due to sample size limitations.
Total percentages may not add to 100 due to rounding.

Table 2.
Intervention Effects on Psychological Sense of School Membership
(Covarying Baseline Psychological Sense of School Membership and Demographic Factors)

	Psychological Sense of School Membership Post-Intervention	
	B	**SE**
Intercept	-.171	.089
Student Gender (0-*Man*; 1-*Woman*)	-.014	.053
Student Racial/Ethnic Minority Status (0-*White*;1-*Minoritized*)	.049	.055
Parental Educational Attainment	.052	.059
Household Income	-.057	.061
Baseline Assessment of Outcome Measure	.808***	.054
The Connection Project Intervention	.305**	.112

Note: *** $p < .001$. ** $p \leq .01$.

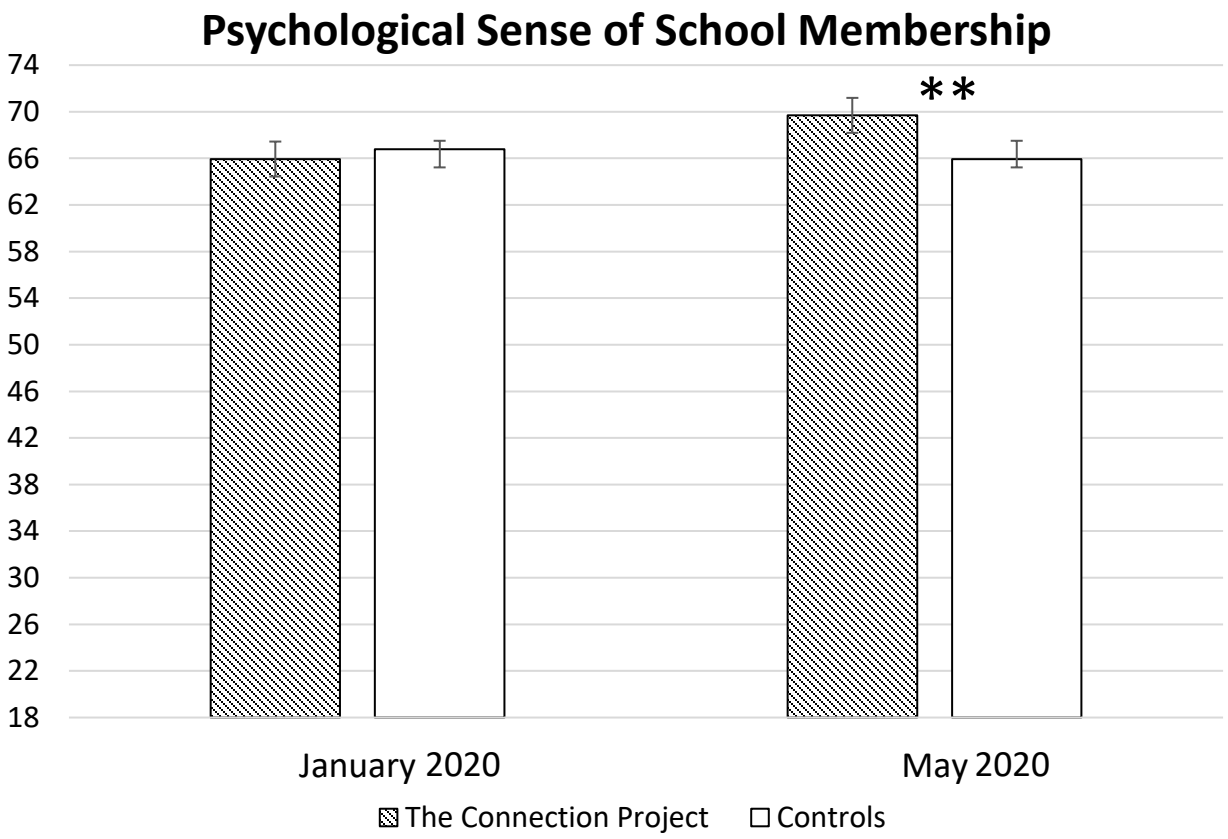

Figure 1. Comparison of control and intervention group pre- and post-intervention endorsement of psychological sense of school membership. All values are adjusted for gender, racial/ethnic-minority group status, household income, and parent education levels.
Note: Y-axis minimum is set to score minimum.
**$p < .01$.