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## The role of service-learning experiences in promoting flourishing among college-student youth mentors

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### ABSTRACT

Service-learning experiences may uniquely promote flourishing (i.e. having meaning in life, social connections, and a positive outlook) for college students. To examine whether specific relational experiences within service-learning were associated with flourishing, we used data from a program where university students ( $N=274$ ; 21.2% first-generation) served as mentors to youth (ages 10–18) with prior exposure to adversity. We examined three experiences: opportunities to belong, supportive relationships, and the quality of the mentoring relationship. After controlling for baseline flourishing and age, results showed positive relationships between mentoring relationship quality and supportive relationships and post-intervention flourishing. Opportunities to belong was not associated with flourishing in the full sample. However, first-generation status moderated the relationship between opportunities to belong and flourishing, such that belonging was marginally predictive of post-intervention flourishing for first-generation students. Implications for university personnel and clinicians working with college students are discussed.

### ARTICLE HISTORY

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### KEYWORDS

Flourishing; service-learning; first-generation college students; belonging; mentoring; support

College students characterized as ‘flourishing’ (i.e. having meaning in life, social connections, and a positive outlook; Diener et al., 2010) tend to have more academic success (Keyes, 2002; Ouwenel et al., 2011), report less risky behaviors (Jorgensen & Nelson, 2018; Nelson & Padilla-Walker, 2013), and experience fewer mental health challenges than their less flourishing counterparts (Dixon & Kurpius, 2008; Fink, 2014; Peter et al., 2011). Interestingly, recent research suggests that students’ flourishing can be fostered through high-quality service-learning programs (Brewer et al., 2018; Fink, 2014; Graff-Low, 2011). Flourishing may be promoted in these programs, in part, because service-learning programs are designed to provide inclusive, engaging atmospheres with meaningful connections to others (Astin et al., 2000; Eyler & Giles, 1998). However, because service-learning programs necessarily vary in their objectives, content, and type of engagement, not all service-learning programs result in flourishing. Moreover, specific experiences within service-learning programs that promote flourishing have yet to be identified. As one step toward knowing how service-learning programs contribute to flourishing, our study examined college students’ unique experiences within one service-learning program.

Ascertaining aspects of service-learning programming that are associated with flourishing is significant because

college can be a stimulating and trying experience. Generally, students face numerous stressors (e.g. academic rigor, financial strain, psychological distress) that may affect overall academic, emotional, and occupational functioning during their undergraduate education (Bewick et al., 2010; Hawley et al., 2016; Pedrelli et al., 2015; Schreiner et al., 2009). More specifically, first-generation students (i.e. students whose parent[s] have not completed a bachelor’s degree) report additional challenges, such as thwarted social support related to their college experience, greater mental health issues, and less life satisfaction than their non-first-generation peers (Jenkins et al., 2013). Despite evidence that first-generation college students face additional and substantial challenges during their college experience, relatively less is known about college experiences outside of the classroom that could promote their flourishing (Demetriou et al., 2017). Because there is evidence to show that first-generation students face significant challenges in college, as well as evidence to show that experiences within a service-learning program may increase the likelihood of students having a positive college experience, it is important to understand the nature of a service-learning experience for first-generation college students in comparison to non-first-generation college students. To address this critical gap and the need to

identify experiences within programs that lead to flourishing, we examined college students' experiences within Campus Connections, a service-learning program in which students serve as mentors for community youth. We specifically analyzed whether students' experiences within the program – including opportunities to belong, supportive relationships, and mentoring relationship quality – were associated with college students' flourishing post-intervention, and whether these associations differed by first-generation status.

## Literature review

### *Broad theoretical perspective*

The principles of the *broaden-and-build theory of positive emotions* (BBT; Fredrickson, 1998, 2001) elucidate the concept of flourishing in young adults and are helpful in conceptualizing why service-learning experiences may lead to flourishing. This theory posits that having positive emotions (e.g. compassion, happiness, and pride) through meaningful experiences, such as those fostered through service-learning programs, are catalysts to healthy psychosocial development and adaptive resilience processes (Fredrickson, 2001). Thus, the more positive and meaningful experiences an individual has, the more individuals are able to build their skills, resources, and intrapersonal insight, which may lead to flourishing. Further, the more experiences that elicit positive emotions, the more individuals are likely to approach and explore new situations (i.e. broaden) within the college environment or in the community. The resulting cyclical effect may promote flourishing (Fredrickson, 2004). In other words, to the extent that service-learning programs can promote positive emotions, such as enjoyment and gratitude, and opportunities for skill-building, such as developing relationships, in college students, they may be able to promote flourishing. Considering the specific focus of first-generation college students and using the BBT – if a first-generation college student experiences positive emotions through service-learning, then they may seek new situations within the university setting increasing their flourishing during their college career. Additionally, the positive and impactful relationships that they may build through service-learning with peers, faculty and staff may increase their comfort in approaching additional people within the University community such as adviser, other faculty and student groups.

### *Flourishing, service-learning, and youth mentoring*

Flourishing comprises meaning in life, social connections, and a positive outlook on life (Diener et al., 2010). Empirical

evidence links flourishing to positive academic and psychological outcomes (Diener et al., 2010; Fink, 2014; Howell, 2009; Nelson & Padilla-Walker, 2013). For example, students who reported higher flourishing scores reported higher grade point averages and adopted greater mastery approaches to their studies compared to those who were observed as non-flourishing (Ouweneel et al., 2011). Further, in previous literature, flourishing students often cited positive emotions, personal resources, and self-efficacy as aids in increasing academic engagement and success during the college experience (Ouweneel et al., 2011). College students who reported flourishing were also less likely to engage in risky behaviors (e.g. substance use; Nelson & Padilla-Walker, 2013) or exhibit symptoms related to depression and anxiety (Dixon & Kurpius, 2008; Fink, 2014; Jorgensen & Nelson, 2018; Peter et al., 2011). Lastly, flourishing is positively linked to health, nutrition, strong spiritual practices and beliefs, and forgiveness behaviors (Peter et al., 2011). The significance of flourishing suggests a need to understand how to promote it among college students.

Extant literature suggests that supportive college environments may foster flourishing (Fink, 2014; Howell, 2009; Wang & Castañeda-Sound, 2008). More specifically, empirical evidence shows that students who participated in service-learning during their first year of college tended to report more flourishing and built on this experience with a lasting sense of flourishing and satisfaction (Bowman et al., 2010; Brewer et al., 2018; Graff-Low, 2011). The unique and supportive setting of service-learning may promote flourishing because it integrates interpersonal interactions and community service with educational and experiential growth leading to high-impact learning experiences (Brewer et al., 2018; Kuh, 2008). Participating in service-learning appears to be associated with increased interpersonal connection and resources, as well as positive emotions and cognitions (i.e. a sense of belonging) that may promote flourishing (Padilla-Walker & Nelson, 2017). Finally, due to the expansive literature connecting service-learning to increased student engagement and retention, service-learning experiences are considered to be a high-impact educational practice connecting real-world experiences within the community to educational content (Kuh, 2008).

One example of service-learning is mentoring youth within the community. A unique aspect of youth mentoring is the sense of connection and belonging that is created through the reciprocal nature of the relationship (Rhodes, 2002; Rhodes et al., 2005). Although intended primarily for youth benefit, mentors also benefit from forming a relationship with their mentee and from engagement with the mentoring program. This type of service-learning experience can result in increased self-

esteem, interpersonal skills, civic attitudes and action, and political awareness (Hall, 2003; Weiler et al., 2013). Previous research also shows that college student mentors report greater sense of purpose, awareness of self-confidence in leadership, gratitude, sense of volunteerism (Haddock et al., 2013) and a desire to establish new relationships (Hughes et al., 2009). Based on BBT and limited empirical literature, it is reasonable to suggest that individuals who have a more meaningful experience through this type of service-learning program may be more likely to report flourishing. Identifying components that lead to flourishing, therefore, remains an important endeavor.

### ***Unique components of service-learning***

Service-learning programs comprise a number of positive experiences that are unique to the service-learning program structure and objectives that make up a high-impact practice by combining educational structure and engagement that intersect and allow for deeper learning potential (Kuh, 2008). Ubiquitous to youth mentoring service-learning experiences is relationships. In all mentoring programs, mentors are forming relationships with youth. In site-based programs situated with a university service-learning course, however, mentors also form relationships with other mentors, program staff, and faculty. Because of this, we were curious about the role that sense of belonging, supportive relationships, and mentoring relationship quality played in promoting flourishing for student mentors.

### ***Sense of belonging***

Sense of belonging is described as an individual's perceived cohesion (i.e. cognitive and emotional) with a group and the associated group members (Bollen & Hoyle, 1990). College students' sense of belonging is critical for multiple reasons. Empirical evidence links belonging to academic achievement (Kivlighan et al., 2018), life satisfaction, diminished stress (Civitci, 2015), and student retention (D. R. Johnson et al., 2007). In addition, other studies have shown that collegiate interpersonal relationships (e.g. connection to specific faculty members; Morrow & Ackermann, 2012) and participation in community-based service projects (Soria et al., 2012) may cultivate an increased sense of belonging. Participation in a service-learning environment provides an opportunity for students to belong to that particular community, which may in turn lead to the development of social relationships and greater feelings of purpose, which are important components of flourishing.

### ***Supportive relationships***

In addition to a felt sense of belonging with a program, college students may also experience various degrees of supportive relationships within a youth mentoring program. College students who have strong, supportive relationships generally report positive psychosocial development (Bowman, 2010; O' Connor et al., 2011; Li et al., 2014). The development of positive, supportive relationships with peers and adults within community organizations, such as mentoring programs, can provide crucial feelings of safety and assistance during stress and difficult times (Li et al., 2014; Wright et al., 2014). In recent studies, students with high levels of perceived social support have reported (a) higher self-efficacy in decision-making processes related to academic and career goals (Wright et al., 2014), and (b) increased feelings of hope for the future (Fruht, 2015). Further, supportive undergraduate peer relationships have been positively associated with increased self-esteem, and negatively associated with depression symptoms (Li et al., 2014). Within the service-learning course and through mentoring, college students connect and create relationships with peers and staff with similar interests (e.g. positive youth development), as well as with youth through the program. As such, cultivating supportive relationships in service-learning may increase a sense of flourishing.

### ***Mentoring relationship quality***

Finally, because the quality of the mentoring relationship affects youth outcomes, it is also likely to affect the mentor's experience (Allen & Eby, 2003; Rhodes & Dubois, 2008). Researchers have predominantly examined how mentees benefit from the quality of the mentoring relationship, but few have examined the impact that the relationship quality has on the mentor's experience. Following a grounded theory methodology, our colleagues examined how mentors experience their role of mentor with a service-learning course and found that mentors' perception of the mentoring relationship is related to their perception of the service-learning program, which leads to diverse strategies for managing their role and unique personal and professional growth outcomes (Weiler, Zarich et al., 2014). In other words, mentors' perceptions of the relationships indirectly affected their own outcomes. Similarly, research on youths' perception of the quality of the mentoring relationship affects their own outcomes (e.g. Eby et al., 2013; Lyons et al., 2019; Schenk et al., 2019). Considering that mentors are affected by the quality of the relationship and likely derive benefit from it, it is logical to examine whether the relationship may also affect students' flourishing.

### **First-generation college students**

Thus far, we discussed the unique experience of youth mentoring within the context of a service-learning course and made an argument for why specific relational factors (i.e. sense of belonging within the program, supportive relationships within the program, and quality of the mentoring relationship) might affect college students' flourishing. One lingering question, however, is whether the impact of these three experiences on flourishing may be differentially affected by characteristics of the student. One important factor in determining student well-being and potentially, flourishing, is whether the student is the first in their family to attend college, given our knowledge that first-generation college students face potential negative outcomes that are unique to their population, it is key to understand the differences between populations. Research has shown that first-generation college students make up about one-third of the United States college student population (Skomsvold, 2015). First-generation college students experience unique challenges and are vulnerable to negative outcomes, if not appropriately supported. They face greater risk of not completing their degree in comparison to their peers who have parent(s) with college degrees (Choy, 2001; Ishitani, 2006). They also report greater difficulty finding opportunities to build relationships and foster a sense of belonging within the college environment (S. Johnson et al., 2011). First-generation college students are motivated by interdependence, whereas most college environments are focused on college students creating independence (Stephens et al., 2012). This reality is particularly problematic because effective social support, meaningful relationships, and belonging are essential for their success (Jehangir, 2010; Soria & Stebleton, 2012). For example, Bowman (2010) found that first-generation students who developed meaningful relationships during their first year in college reported high levels of personal well-being.

Fortunately, service-learning experiences may provide a place for first-generation students to find opportunities for interdependence and community. Furthermore, engaging in service-learning can facilitate growth and development leading to more success and connection during the college experience through such high-impact educational practices (Kuh, 2008; Yeh, 2010). Engaging with service-learning programs could enhance a sense of belonging and supportive relationships within the program, which could potentially lead to greater flourishing for first-generation college students. However, the unique service-learning factors that play a role in promoting flourishing among first-generation and non-first-generation students have yet

to be examined. Including first-generation status as a moderator could identify components of service-learning that may uniquely increase flourishing among first-generation students.

### **The current study**

The aim of the present study is to examine whether students' experiences within a service-learning program (i.e. opportunities to belong, supportive relationships and mentoring relationship quality) were associated with flourishing post-intervention, as well as whether the relationships between program experiences and flourishing varied by first-generation college student status. Our hypotheses were as follows:

H1: Program experiences (i.e. opportunities to belong, supportive relationships and mentoring relationship quality) will be positively associated with flourishing post-intervention.

H2: First-generation status will moderate the association between program experiences and flourishing post-intervention.

## **Method**

### **Sample**

The sample included 274 students (83.6% female-identified) from a Midwestern university who participated in the Campus Connections (CC) service-learning program between Fall 2015 and Spring 2018. In all, six cohorts of students (range = 42–51 students per cohort) participated. Students ranged in age from 18 to 43 years ( $M = 20.78$ ,  $SD = 2.71$ ) with most students in their sophomore (29.6%), junior (27%) or senior (30.3%) year of college. The majority of the sample (73.0%) identified as White, followed by 13.9% Latino(a), 4.0% African American, and 2.6% Asian American; 6.2% denoted multiple races. One student in the sample chose not to disclose their race/ethnicity. The majority of students majored in human development and family studies (40.9%) and/or psychology (17.5%). First-generation university students comprised one-fifth (21.2%) of the sample. First-generation students in this sample ranged in age from 18 to 39 years ( $M = 21.12$ ,  $SD = 2.90$ ). The majority of the sample (48.3%) identified as White, followed by 27.6% Latino(a), 8.6% African American, and 3.2% Asian American; 10.3% denoted multiple races. Similarly, the majority of students majored in

human development and family studies (36.2%) and/or psychology (24.1%).

### **Procedure**

All participants were enrolled in a 3-credit service-learning undergraduate course prior to recruitment. Recruitment methods included a presentation on study information given by a trained researcher affiliated with CC. While participation in this study was explicitly stated as voluntary and that participation did not impact a student's standing in the course, the response rate for this survey was very high with only one student choosing not to participate. The study was approved by the university institutional review board. Informed consent was obtained prior to completion of initial and subsequent study activities by a trained research team member. Students completed all self-reported measures via Qualtrics, an online survey system, prior to, throughout, and after (i.e. baseline, week six, and week nine, post-intervention: week 11) the 12-week program. Participants were not compensated for cooperating in the study.

### **Campus connections**

Campus Connections (CC) is a site-based 12-week youth mentoring program in which university students mentored local youth, ages 11 to 18 years, on a university campus (Weiler et al., 2015). Youth were referred from community partners due to their exposure to childhood adversity, as measured on a comprehensive risk scale (Herrera et al., 2013). Mentors were recruited on campus through various mechanisms (e.g. word-of-mouth, flyers, emails, service-learning announcements). All student mentors were enrolled in a 3-credit service-learning course designed to support their role as a youth mentor and their growth as a university student. This service-learning course began prior to the mentoring experience and continued throughout the 12 weeks and included topics such as cultural competence, social justice issues and adolescent development (see Weiler et al., 2013 for complete details). Mentors received 18 hours of training prior to working with their youth mentees. Students completed readings, discussed relevant topics (e.g. mentoring best practices, cultural competence, adolescent development), and regularly participated in reflective exercises. Students participated in weekly written reflections and met in-person as a group before and after spending time with their mentee to prepare for the programming, troubleshoot, and reflect on their experience.

Students met with their mentee one evening per week for four hours after school. Mentors developed their mentoring relationship through exploration of the university campus, supporting youth's educational success, communal dinners, and engagement in various mentor-led prosocial activities. Each evening of CC, between 28 and 32 mentoring pairs were engaged at a designated facility on the university campus. The mentoring pairs were organized into 'Mentor Families' based on age and gender (Weiler et al., 2013, p. 248). Each Mentor Family consisted of four mentor-mentee dyads and was supported by an experienced mentor coach (Weiler, Zimmerman et al., 2014).

Students were also supported before, during, and after each mentoring session by Marriage and Family Therapy faculty instructors and graduate trainees. Combining on-site experience and classroom engagement increased the opportunity for students to apply concepts from class to a real-world setting (i.e. mentoring relationship), as well as to reflect with faculty on their mentoring experiences in order to increase high impact engaged-learning and a deeper understanding of topics learned about through the curriculum (Kuh, 2008).

### **Measures**

#### **Demographics**

Demographic variables included participant age, race/ethnicity, and sex (0 = female; 1 = male). First-generation status was calculated based on the student-reported highest level of education completed by the student's mother and/or father and participants whose parent(s) had not graduated from college or university were considered first-generation students (0 = non first-generation; 1 = first-generation).

#### **Program experiences**

Program experiences included students' reports of (a) opportunities to belong, (b) supportive relationships, and (c) mentoring relationship quality. Students' perception of opportunities to belong and supportive relationships were assessed at week 9 via the Youth and Program Strengths Survey (Search Institute, 2005). Items in two subscales were adapted to incorporate program experiences in the mentor role: supportive relationships (e.g. 'There is at least one staff member I can talk to if I have a problem;' 7 items;  $\alpha = .87$ ) and opportunities to belong (e.g. 'I feel like an important part of CC;' 3 items;  $\alpha = .84$ ). Participants assessed each item with 5-point Likert responses, ranging from 1 (*never*) to 5 (*often*), wherein higher scores signified positive experiences with the CC program. Program experiences were

collected at week 9 to allow for sufficient time in the program.

Participants also reported on the quality of their mentor-mentee relationship at week 6 using the Mentor Alliance Scale (Cavell et al., 2009). The scale consisted of 14 items and included questions such as, 'My mentee talks about things that upset him or her' and 'My mentee likes spending time with me.' Each item was assessed using a 5-point Likert scale, ranging from 1 (*never*) to 5 (*always*). Higher scores indicated greater perceived mentor-mentee relationship quality. Cronbach's alpha for this scale was 0.87. Mentor Alliance Scale was measured at week 6 to allow for the mentor-mentee relationship to develop before assessing quality of alliance. Program experiences were collected at different timepoints to prevent participation evaluation burden.

### Flourishing

Students were asked to respond to eight items that assessed vital components of flourishing (i.e. sense of purpose, optimism, self-esteem) using the Flourishing Scale (Diener et al., 2010). Flourishing was measured at baseline and post-intervention (week 11). Statements included items such as 'I lead a purposeful and meaningful life.' Participants rated their agreeableness with each statement on a 10-point Likert scale, ranging from 1 (*disagree*) to 10 (*agree*). Higher scores demonstrated greater student-perceived flourishing. Cronbach's alpha for this scale was 0.94.

### Data analysis

We conducted all analyses using *IBM SPSS Statistics* version 25 (IBM Corp, 2017). Hierarchical regression was conducted to test the association between program experiences and flourishing among non-first-generation and first-generation university students. Preliminary analysis examined study variable distributions and descriptive statistics (e.g. means, standard deviations). Variables were determined to be normally distributed via skewness and kurtosis tests. Bivariate correlations were used to examine associations among key variables and to identify covariates for hypothesis testing. Variables that were statistically significantly related to flourishing at baseline were added as covariates. Participant sex and race/ethnicity were not associated with flourishing at baseline. Age, however, was positively correlated with flourishing at baseline ( $r = .15$ ,  $p < .05$ ). All continuous variables were centered at the mean prior to hypothesis testing. A hierarchical regression model was used to test for Hypothesis one and Hypothesis two. Model one tested for the association between program experiences (i.e. opportunities to belong, supportive relationships and mentoring relationship quality) and

flourishing (Hypothesis one), while accounting for baseline flourishing and participant age. Regression assumptions of normality, linearity, and homogeneity of variance were tested and found to be met. Models two, three and four added a unique interaction term in order to test for moderation of each program experience by first-generation status (Hypothesis two). Significant interaction effects were further probed by evaluating the significance of simple slopes.

## Results

Descriptive statistics are provided in Table 1. Table 2 presents bivariate correlations among study variables. Significant positive correlations between baseline flourishing and program experiences (i.e. opportunities to belong, supportive relationships, and mentoring relationship quality) were observed. Table 3 presents the results of the hierarchical regression models. Hypothesis one (program experiences will be positively associated with flourishing post-intervention), holding constant baseline flourishing and the identified control variables, was partially supported. Participant-perceived mentoring relationship quality and supportive relationships significantly predicted flourishing; however, student-perceived opportunities to belong was not significantly associated with post-intervention flourishing.

Next, hierarchical regression models were used to test the moderating effect of first-generation status on the relationship between program experiences and post-intervention flourishing (Hypothesis two). Findings partially supported this hypothesis, such that first-generation status

**Table 1.** Means and standard deviations among study variables.

Variable	First Generation		Non-First Generation		Total Sample	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Mentor Flourishing: Baseline	8.64	1.26	8.74	1.27	8.73	1.26
Mentor Flourishing: Week 11	8.68	1.19	8.81	1.08	8.79	1.10
Mentoring Relationship Quality: Week 6	3.85	.54	3.85	.55	3.86	.55
Supportive Relationships: Week 9	4.29	.65	4.33	.63	4.32	.63
Opportunities to Belong: Week 9	4.34	.67	4.37	.76	4.37	.74

**Table 2.** Bivariate correlations among study variables.

Variable	1	2	3	4	5
1. Mentor Flourishing: Baseline	-				
2. Mentor Flourishing: Week 11	.73**	-			
3. Mentoring Relationship Quality: Week 6	.18**	.24**	-		
4. Supportive Relationships: Week 9	.27**	.39**	.17*	-	
5. Opportunities to Belong: Week 9	.29**	.33**	.19**	.81**	-

Note. \* $p < .05$ , \*\* $p < .01$ .



**Table 3.** Regression models predicting flourishing at week 11.

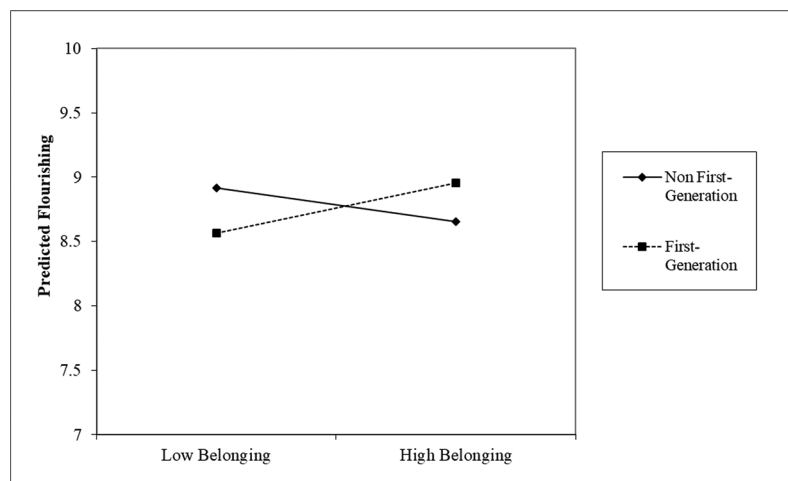
Variables	Model 1			Model 2			Model 3			Model 4		
	B [95% CI]	SE B	$\beta$	B [95% CI]	SE B	$\beta$	B [95% CI]	SE B	$\beta$	B [95% CI]	SE B	$\beta$
Age	-.00 [-.04,.03]	.02	-.01	-.00 [-.04,.03]	.02	-.01	-.00 [-.04,.03]	.02	.01	-.00 [-.04,.03]	.02	-.01
Flourishing at baseline	.58 [.51,.66]	.04	.67***	.58 [.51,.66]	.04	.67***	.58 [.51,.66]	.04	.67***	.58 [.50,.65]	.04	.66***
Mentoring relationship quality	.19 [.03,.36]	.08	.09*	.15 [-.04,.33]	.09	.07	.19 [.03,.36]	.08	.09*	.17 [.01,.34]	.08	.09*
Supportive relationships	.46 [.22,.69]	.12	.26***	.46 [.23,.70]	.12	.27***	.37 [.12,.62]	.13	.21**	.43 [.20,.66]	.12	.25***
Belonging	-.05 [-.25,.14]	.10	-.03	-.13 [-.34,.07]	.10	-.09	-.10 [-.31,.10]	.10	-.07	-.18 [-.38,.03]	.10	-.12
1 <sup>st</sup> Gen Students	-.03 [-.25,.18]	.11	-.01	-.03 [-.25,.18]	.11	-.01	-.03 [-.24,.19]	.11	-.01	.03 [-.24,.19]	.11	-.01
1 <sup>st</sup> Gen Students by mentoring relationship quality				.22 [-.18,.62]	.20	.05						
1 <sup>st</sup> Gen Students by supportive relationships							.30 [-.04,.63]	.17	.08			
1 <sup>st</sup> Gen students by belonging										.44 [.13,.75]	.16	.12**
Intercept	3.69			8.78			8.79			8.79		
N	263			263			263			263		
F	59.90			51.53			52.20			53.80		
Adjusted R <sup>2</sup>	.57			.59			.58			.58		
$\Delta R^2$	.05***			.05***			.05***			.06***		

Note. \*  $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . All continuous variables were centered at their mean (age  $M = 20.78$ ; all others reported in Table 1). 1<sup>st</sup> Gen Students coded as 1 = 1<sup>st</sup> Gen and 0 = non-1<sup>st</sup> Gen.

moderated the effect of opportunities to belong, but not mentoring relationship quality or supportive relationships, on post-intervention flourishing holding constant baseline flourishing and the identified control variables. In probing the significant interaction effect, results showed that the association between belonging and flourishing was positive and marginally significant for first-generation students. The association representing non-first-generation students, however, was negative and not significantly different from zero. See Figure 1.

## Discussion

The purpose of this study was twofold: (1) to examine whether students' program experiences (i.e. opportunities to belong, supportive relationships and mentoring relationship quality) as a mentor in Campus Connections were associated with post-intervention flourishing (adjusting for pre-intervention flourishing), and (2) to ascertain whether the relationships between program experiences and flourishing varied by first-generation university student status. Our initial hypothesis, based



**Figure 1.** Fitted relationship between predicted flourishing and perceived opportunities to belong for college students who are first-generation and not first-generation. Low belonging represents 1 SD below the mean; high belonging represents 1 SD above the mean. The slope representing first-generation students was marginally significant ( $p = .093$ ). The slope representing non-first-generation students was not significantly different than zero ( $p = .130$ ).

on *broaden-and-build theory* (BBT; Fredrickson, 1998), posited that positive programmatic experiences would be related to flourishing among participating college students. This hypothesis was mostly supported. Quality mentoring relationships and supportive relationships within the program were significant predictors of flourishing. This finding is consistent with BBT assumptions and previous scholarship linking meaningful, supportive relationships to increased flourishing in undergraduate students (O' Connor et al., 2011; Li et al., 2014; Wright et al., 2014). Supportive relationships in extant flourishing literature have generally focused on peer to peer and adult-student relationships (e.g. Padilla-Walker & Nelson, 2017). Our findings add empirical support for the role that youth mentoring relationships may play in promoting flourishing. Furthermore, our results contribute (a) empirical support for service-learning experiences that focus on creating relationships, such as youth mentoring, and (b) delineate specific experiences (i.e. supportive relationships and mentoring relationship quality) within service-learning programs associated with post-intervention college students' flourishing. While peer and adult supportive relationships have been linked to flourishing in previous research (Padilla-Walker & Nelson, 2017) our findings add support for the role that youth mentoring relationships may play in promoting flourishing. In contrast, our hypothesis that belonging to CC would be associated with flourishing was not supported.

Although student-perceived opportunities to belong in Campus Connections were not associated with flourishing across the full sample, we found first-generation student status moderated this relationship, such that belonging was marginally related to flourishing among first-generation college students only. There are a few arguments for why sense of belonging within CC was not associated with flourishing in our non-first-generation sample. First, the majority of non-first-generation students in the sample may identify with the dominant culture and population on a predominantly white college campus. As a result, these students may identify socioculturally with many peers, thereby fostering a natural sense of comfort in a university environment. Additionally, non-first-generation students may already have strong, meaningful relationships in other sources, such as family, peers, and other informal and formal organizations (e.g. sports, religious organizations; Jenkins et al., 2013). Therefore, while non-first-generation students may have enjoyed their experience in CC, their sense of belonging may have been already established through other sources.

Importantly, our findings show that opportunities for belonging within CC may be an important component in fostering flourishing among first-generation students who,

as discussed in the literature review, tend to face unique challenges such as finding fruitful opportunities to build relationships (S. Johnson et al., 2011). The relationships built within the CC service-learning course may have aided to foundational beliefs of belonging in first-generation students through the facilitation of positive experiences and interactions. Further, our results suggest that service-learning youth mentoring programs may foster a sense of belonging in first-generation students.

### **Limitations**

There are several limitations to consider. Results herein are based on a convenience sample that was largely homogenous (i.e. majority female, enrolled in a single service-learning program). Findings may not be generalizable to the overall population due to participant selection into the program. CC was a semester-long program targeting youth exposed to adversity, and therefore, results may not generalize to programs with a different structure or target population. While repeated measures were used, measures were self-reported and may include instances of response bias due to length of questionnaires and/or social desirability. Additionally, these results are based on an observational study. That is, participants were not randomly assigned to the intervention. Thus the findings are associational and should not be interpreted as causal. When asking about mother's and father's education, we did not specify the purpose of this question as determining first-generation status, which could have impacted how students answered the item. In our survey, the question preceding the educational level of the family asks about whether a person had a mother figure in their life (repeat for father), allowing the student to identify who that person may be in their life (e.g. biological parent, stepparent, grandparent). Yet, there is no way to determine if students considered other parental figure(s) when answering the questions about parents' level of education. Finally, participants completed their post-intervention assessment at week 11 rather than after the program's end. Due to the timing of the post-intervention assessment, we may be lacking information about how participants conceptualized their experiences within Campus Connections as a whole.

### **Implications**

#### ***College and university personnel***

Quality, supportive relationships within the context of a youth mentoring service-learning program were found to be an important component of flourishing for students. Thus, departmental and program administrations may consider including and promoting varied opportunities for all students to participate in relationally focused service-

learning programs, such as youth mentoring. In addition, collegiate and university partnerships with local community and campus programs could aid in cultivating supportive relationships and fostering a sense of belonging among students of diverse backgrounds, such as first-generation students. Administration may also incorporate faculty participation to increase student-faculty connection and build a sense of comfort and support within the university environment. Student participation in such programs could create positive experiences, promote healthy psychosocial development, and job-related skills and insight, which may lead to flourishing and positive student outcomes.

### **Clinical application**

Overall, our results support focus on mechanisms that cultivate supportive relationships and a sense of belonging. Therefore, development and maintenance of the therapeutic alliance may be invaluable in working with undergraduate populations, such as first-generation students. College counseling providers may use strength-based interventions that provide awareness of already-held resilience processes and opportunities to foster social support necessary to navigate the college experience. In addition, providers may focus on development of interpersonal skills (i.e. conflict resolution, communication, boundaries) that facilitate students' confidence in creating and maintaining trustworthy, supportive relationships.

### **Future avenues of research**

In order to determine if service-learning programs cause flourishing, a randomized-controlled trial (RCT) is necessary. Given our promising results, an RCT is an important next step. Continued exploration of undergraduate programs and processes associated with components of flourishing is needed. In specific, future research should focus on analyzing positive mentoring relationships and mentoring programs among diverse student populations to identify salient mechanisms which contribute to flourishing. Researchers may also consider examining moderating factors, such as length of program, first-generation status (i.e. assessed in varied and more specific ways), student time commitment, location (e.g. campus, community), and type of service-learning program to further specify flourishing predictors among diverse student groups. Another direction for future research is to examine the relationship between age and flourishing. Our baseline data showed a small positive correlation, suggesting there may be a link. Interestingly, in a post hoc analysis, we examined differences in flourishing by year in school and found no statistically significant differences. Further assessing whether

and how flourishing changes over time could inform future intervention development.

### **Conclusion**

Scholarship on service-learning programs and associated processes of flourishing, while relatively new, show promising results in positive academic and mental health outcomes among college students, we examined first- and non-first-generation college students' unique experiences (i.e. opportunities to belong, supportive relationships and mentoring relationship quality) within a local service-learning mentoring organization, Campus Connections, to ascertain components linked with flourishing within service-learning. Our results contribute empirical evidence for relationally focused service-learning experiences, such as youth mentoring. Moreover, our findings define specific experiences (i.e., supportive relationships and mentoring relationship quality) within service-learning programs associated with post-intervention flourishing among first- and non-first-generation college students. Results illuminated the potential value of service-learning for first-generation college students. Further research is needed to determine additional service-learning programmatic processes associated with components of flourishing among diverse college student populations, such as first-generation college students.

### **Disclosure statement**

Drs. Lindsey Weiler and Shelley Haddock report that they have a financial interest in Campus Connections and receive a royalty when the program is licensed and sold to interested parties (e.g. Universities).

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