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WE'RE NOT WORKING WITH A BLANK SLATE:

Students' pre-college leadership activities and perceived parenting behavior as predictors of college-based leader emergence and leader self-efficacy.

Abstract

The purpose of this study was to explore how variables such as student demographics, pre-college leadership activities, and perceived pre-college parenting behaviors predict students' leader self-efficacy (i.e., individuals' confidence in themselves to lead and belief that others will support their leadership [Hannah et al., 2008]) in college and leader emergence (i.e., college-based leadership involvements [DeRue & Ashford, 2010]) in college. Undergraduate students (n = 420) at a large, public university in the Mid-Atlantic were surveyed to examine these relationships and data were analyzed using hierarchical and logistic regression, with appropriate controls and moderators. Findings included discovery that pre-college engagement with sports team positional leadership, community service, extracurriculars, and positive parenting behaviors, such as family routine and greater quality time with parents, predicted leader self-efficacy. Further, findings noted that pre-college community service, extracurriculars, peer tutoring and perceptions of parental quality time and proactive parenting predicted leader emergence. This study suggests that students' leadership development is influenced by myriad systems across the lifespan and demonstrates that, as educators committed to student development, we must engage the full arc of our students' leadership journeys and provide for intentional partnerships between higher education and the K-12 community.

Introduction

Accounting for pre-college experiences' impact on *and* relationship with college-based beliefs and enactments has long been on the college student development research and practice priorities list. While Astin (1991) offered his Inputs-Environments-Outcomes (I-E-O)-based College Impact Model as a way to explore how students change and develop given exposure to various elements of the *college* environment, he also underscored the importance of *pre-college* inputs (e.g., socioeconomic circumstances, aptitude, cultural capital) in relation

to student outcomes. Similarly, Kuh et al. (2006), in a follow-up report on what matters to college "student success" (e.g., academic achievement, persistence, attainment), emphasized "student foundations" – represented by pre-college experiences, enrollment, and personal characteristics.

Given the current focus on college's link to "career readiness" (Fox, 2018; Stebleton et al., 2020), "foundations" and college outcomes matter deeply when considering students' involvement with/beliefs about leadership – "a process whereby an individual influences a group of individuals to achieve a common goal" (Northouse, 2018, p. 7). In fact, via the 2006 Multi-

Institutional Study of Leadership (MSL), Dugan and Komives (2007) found that college students' pre-college experiences (e.g., leadership training, activities, service) contributed significantly to college leadership outcomes. These and related findings (e.g., O'Dell et al., 2016) amplify the need for research that considers leadership development across the lifespan.

Centering early life experiences as predictors of myriad student outcomes affirms that students do not arrive at college as "blank slates." In fact, Bronfenbrenner (1977) outlines a network of systems acting upon an individual's development. The *microsystem* encompasses the individual's immediate environment and includes their regular interactions and relationships with family members, peers, teachers, caregivers, and role models. The interactions between individuals and the microsystem are influenced by genetic and biological factors unique to each participating actor, yet, the quality and strength of these relationships can serve to foster or hinder an individual's development. The parent-child relationship is one of the most impactful relationships within the microsystem and has been centered in much research about college outcomes (e.g., McCarron & Inkelas, 2006; Zhou & Bowers, 2020).

Thus, in conceptualizing leadership development, both the individuals' unique characteristics and influential systems — e.g., parenting — may inform leadership beliefs and skills, especially during sensitive periods of development (Bornstein, 1989). In their influential theoretical model of early influences on leadership development, Murphy and Johnson (2011) suggested three primary developmental factors: (a) demographics (e.g., genetics, gender), (b) parenting, and (c) early learning experiences (e.g., education, sports). This interplay between students' pre-college demographics, experiences, and exposure to parenting behaviors in relation to college outcomes — specifically leadership development — serves as impetus for this study.

While studies have looked at *specific* aspects of these pre-college influences (e.g., overparenting; Liu et al., 2019) on leadership development, the present study hopes to offer a more holistic picture of students' pre-college experiences by examining a *combined* picture of salient pre-college microsystems – e.g., demographics, parenting, and early learning experiences. Additionally, this study offers a unique exploration of *both* leadership beliefs *and* leadership involvements in relation to these microsystems. This study is further significant because it centers the multidimensional nature of our students and, potentially, broadens thinking for how best to nurture students' leadership development beyond campus gates. As such, the purpose of this study is to explore how student demographics, pre-college leadership activities, and positive, perceived pre-college parenting behaviors predict students' leader emergence in college (i.e., college-based leadership involvements [DeRue & Ashford, 2010]) and leader self-efficacy (i.e., individuals' confidence in themselves to lead and belief that others will support their leadership [Hannah et al., 2008]) in college. These outcomes were chosen in an effort to probe further the leadership efficacy outcome studied by Dugan and Komives (2007) and to explore the parallels between pre-college and college-based leadership activities. Thus, the following research questions guided our inquiry:

1. What is the relationship between students' *leader self-efficacy* in college and (a) pre-college leadership activities, and (b) perceived parenting behavior?

2. What is the relationship between students' *leader emergence* in college and (a) pre-college leadership activities, and (b) perceived parenting behavior?

3. How are the relationships in RQ1/RQ2 moderated, if at all, by gender or race/ethnicity?

All three research questions were developed with Murphy and Johnson's (2011) leadership-influencing primary developmental factors (i.e., demographics, parenting, and early learning experiences) in mind. With regard to demographics, research question three spoke specifically to gender and race because critical calls for equity in higher education and student development point toward the need for understanding how these identities relate to leadership development (Grogan, 1999; Kodama & Dugan, 2013). Prior research in leadership development, write large, has revealed

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significant differences in how individuals develop as leaders given gender and race (Eagly & Chin, 2010); however, there has been limited research into such topics when considering college student leadership development. Understanding these differences is critical for ensuring that our leadership education and development practices do not further marginalize.

Literature Review

College Student Leadership Development. In their analysis of the status and scope of U.S., college-based leadership education programs, Komives and Sowcik (2020) foregrounded the importance of these programs in- and outside of the classroom. They noted the lasting impact of leadership education directly *on students* experiencing the phenomenon as well as on individuals benefiting *from those* who experienced the phenomenon. But, what exactly is the phenomenon? According to Rost and Barker (2000), "leadership education is aimed at producing citizens for a democratic society" (p. 1) by stressing "collaboration, wholeness, consensus, client-orientation, civic virtues..." (p. 5) and working toward "global connections, diversity, pluralism, critical dialogue, and multidisciplinary perspectives" (p. 5). In short, leadership education can aid social change.

With leadership education at the core, critical seeds for contemporary student leadership development programs were sown circa the 1970s as interest in the college student experience intensified, leadership studies (as a field) blossomed, and fundamental leadership frameworks formalized (Komives et al., 2006). The decades since have further crystalized the essentiality of college-based leadership learning, with scholarship highlighting leadership development via service; culturally-relevant leadership; student engagement; and myriad other foci (e.g., Dugan & Humbles, 2018; Guthrie et al., 2016; Owen, 2015). Further, modern assessments (e.g., MSL) have produced empirical data on the value of college-based mentoring, involvements, service, and positional leadership to leadership development (Dugan & Komives, 2007).

Pre-College Factors and College Student Leadership Development.

Activities. Zaccaro et al. (2018) noted that "Leadership capacities are relatively mutable in that they can change and grow as a function of particular developmental activities and experiences" (p. 7). This sentiment echoes Hannah et al.'s (2008) notion of leadership as a self-reinforcing process: Practicing leadership improves one's leader efficacy, and, as leader efficacy grows, the more likely one is to engage with leadership responsibilities. Thus, the logic persists that individuals who practice leadership skills earlier in life will likely build their leadership confidence, will be encouraged to seek such experiences, and will further their leadership abilities.

Relatedly, Murphy and Johnson (2011) proposed a framework for leadership development throughout the entire lifespan, focusing on "seeds of leadership" that are cultivated in early childhood. Among these "seeds" are experiences in youth that potentially shape individuals' development as leaders in adulthood. The MSL, scaffolded by Astin's (1991) College Impact Model (i.e., I-E-O model), considers some of these seeds in its examination of student leadership outcomes. In fact, in its intentional exploration of pre-college factors (e.g., personal demographics and pre-college leadership/community activities), the 2006 MSL (including nearly 50,000 participants across 52 institutions) showed that pre-college involvements such as high school groups, service, sports, leadership training, and positional leadership roles predicted college-measured leadership efficacy: "What students came to college with largely explained how they developed in college"

(Dugan & Komives, 2007, p. 15).

Aligned with Dugan and Komives (2007), Larson et al., (2006) demonstrated, specifically, that youth sport involvement bolstered individuals' initiative, emotional regulation, and teamwork experiences compared to other activities. As these skills are noted as important traits for effective leadership (Kirkpatrick & Locke, 1991), participation in youth sports may also boost leadership development later in life. Beyond sports, there is evidence that involvement in other activities may bolster individuals' leadership development. For example, participating in extracurriculars (O'Dell et al., 2016; Reitan & Stenberg, 2019), along with community engagement (Wagner & Pigza, 2016), is linked to greater leader efficacy and emergence.

Parenting behaviors and practices. In contrast to parenting styles (Baumrind, 1966) (i.e., a constellation of parenting behaviors and emotional responsiveness), *parenting behavior* captures behaviors that can be targeted toward specific outcomes (Bornstein, 2009). For example, *overparenting* is considered a negative behavior resulting in intrusive overinvolvement in a child's life and may hinder problem-solving skill and self-esteem development (Darlow et al., 2017; LeMoyne & Buchanan, 2011). Notably, much of the leadership development literature highlights overparenting's mal-effects on leadership development: Parental psychological control inhibits charismatic leadership development (Towler, 2005), decreases academic motivation (Schiffrin et al., 2019), and impairs leader emergence (Liu et al., 2019). However, leadership development in youth could be more directly shaped by positive parenting (Popper & Mayseless, 2003) – i.e., DeRue and Wellman's (2009) positing of the relationship between positive feedback and developmental activities. Thus, this study moves from examining overparenting to exploring positive parenting behaviors.

Positive parenting includes a range of behaviors, including parent-child *relationship warmth*, regular *family routine* (e.g., family meals), frequent *quality time*, *parental monitoring* of child relationships, schedule, and activities, *proactive parenting* (i.e., consistency), *incentives and encouragements* to reward and motivate good behaviors, and low levels of *family conflict*. Existing literature has linked positive parenting behaviors to numerous youth outcomes, indicating that parents also have a beneficial influence on their children's actions, choices, and outcomes. For example, secure attachment and authoritative parenting styles are linked to adolescent leadership traits (Towler, 2005; White, 2015). A strong parent-adolescent relationship (Ryan et al., 1994) and parental monitoring (Dishion & McMahon, 1998) predict higher adolescent self-esteem. Notably, Riggio and Mumford (2011) indicated that enhanced self-esteem may mediate the relationship between positive parenting and leadership potential.

Despite the budding research, however, we must still identify the specific positive parenting behaviors linked to leadership development and, additionally, examine *if* positive parenting behaviors support leadership development, even in the presence of negative behaviors. This gap in the research on the relationship between leadership development and positive, early parenting behaviors, taken with potential impacts of demographics and pre-college activities on students' leader emergence and self-efficacy in college, provides the basis for this present study.

The Present Study. In summary, our study uniquely contributes insight into how two important aspects of an individual's upbringing prior to college (activities, *RQ1*;

and parenting behaviors, *RQ2*) could directly impact both leadership emergence and leader self-efficacy in college students. Rather than treating all college students with little to no consideration for how they have developed as leaders *so far*, we propose that college student leadership development should pay close attention to students' prior leadership experiences, activities, and parental upbringing. Moreover, our *RQ3* considers how gender and race/ethnicity relate to leadership development. Based on evidence that suggests that the same developmental activity can differentially affect leadership development given gender and/or race (e.g., effective leadership behaviors that are incongruent with gender stereotypes are discouraged rather than positively reinforced; Burke & Collins, 2001), we suspect that gender and race would be moderators of the relationships found in *RQ1* and *RQ2*. Thus, our study offers an important contribution to the literature on college student leadership development, with important practical relevance to pre-college and college educators.

Methods

Research Context and Participants. Undergraduates aged 18 or older at a large, public university in the Mid-Atlantic were recruited through the use of the SONA Experiment Management System. Participants completed an anonymous, 30-minute Qualtrics-based, web survey during the Spring 2020 semester, which could earn them extra credit for select classes. The survey included three sets of measures along with additional variables for controls, moderators, and items unrelated to this study. In order to complete the survey and earn credit, participants had to answer one attention-check question (i.e., "Please select 'Strongly Agree' for this question"). The final sample included 420 students, with a mean age of 21.98 (*SD* = 4.93). Table 1 details participants' self-reported identities.

Table 1

Respondent Characteristics (n = 420)

		n (%)
Gender Identity	Man	162 (38.6)
	Woman	246 (58.6)
	Gender Non-Conforming	12 (2.9)
Racial Identity	Asian, Asian-American, or Pacific Islander	107 (25.5)
	Black or African-American	40 (9.5)
	Hispanic or Latino/Latina	44 (10.5)
	Middle Eastern	25 (6.0)
	Multiracial	41 (9.8)
	White	159 (37.9)
	No Response	4 (1.0)
Academic Year	Freshman	63 (15.0)
	Sophomore	105 (25.0)
	Junior	165 (39.3)
	Senior	84 (20.0)
	No Response	3 (0.7)
Enrollment Status	Full Time	374 (89.0)
	Part Time	43 (10.2)
	No Response	3 (0.7)

Measures.

Leadership activities. To assess leadership activities, we created a robust list of options (e.g., student clubs, sports) informed by research and our team's subject matter experts. We piloted this list of 18 different activities using Amazon MTurk with a sample of 382 working adults holding Bachelor's degrees. We then reduced the list to the following seven activities based on highest frequency of responses in this pilot study: (a) sports team officer, (b) sports team member, (c) community service, (d) formal employment, (e) extracurriculars (e.g., student government), (f) family caretaker, and (g) peer tutoring. For each activity, students noted if they had (or not) participated in primary/secondary school and college -- resulting in a set of dichotomous variables.

Leadership self-efficacy. To assess the criterion variable of leader self-efficacy, our survey included the self-report version of the Leader Efficacy Questionnaire (LEQ; Hannah et al., 2012), which asked participants to think about themselves as a leader and rate their level of confidence for each of the 22 items. Example items follow: "As a leader I can energize my followers to achieve their best," and "As a leader I can motivate myself to perform at levels that inspire others to excellence." Internal reliability for this measure was very high (α = .94; Hannah et al., 2012).

Parenting behaviors. We measured students' recollection of their caregivers' parenting behaviors during adolescence using adapted parenting measures. All items were rated on a five-point Likert scale. Overparenting was measured with the seven item Helicopter Parenting Scale (LeMoyne & Buchanan, 2011). Proactive parenting and quality time were assessed using 12 items from the Parenting

Children and Adolescents (PARCA) instrument, a modified version of the Parenting Young Children measure capturing adolescent parenting behaviors (McEachern et al., 2012). Incentives/encouragements were assessed via four items combined from the PARCA and the Community Action for Successful Youth (CASEY) (Metzler et al., 1998); family conflict was measured using a four-item subscale of the CASEY (Metzler et al., 1998). Parental monitoring and family routine were measured using 16 items adapted from the PAL2 Parent Interview survey (Child & Family Center, 2005). Relationship warmth was measured using five items adapted from the school-based Student–Teacher Relationship Scale (Pianta, 1992, 2001). Internal reliability ranged from good to excellent for each subscale (α = .75 to .93).

Demographic variables. Control variables included students' academic year and enrollment status (part- or full- time); moderators included students' gender and race/ethnicity -- reported via open-ended questions. Gender was dummy-coded into one variable (0 = man, 1 = woman). Race/ethnicity was dummy-coded as follows (per U.S. Census Bureau (n.d.) and previous studies): Asian/Asian-American, Black/African-American, Hispanic/Latino/a, Middle Eastern, and multiracial/biracial, with White as reference group given relative group sizes (Alkharusi, 2012).

Analysis Plan. To explore the *relationship between students' leader self-efficacy in college and pre-college leadership activities* (RQ1a), we first regressed leader self-efficacy onto each of the seven pre-college activities separately, using hierarchical regression in R. In the first step, we entered our control variables (enrollment status, academic year), followed by one of the pre-college activities in the second step. For any activities that demonstrated significant prediction of self-efficacy above and beyond the control variables, we also tested two potential moderators (RQ3) in separate hierarchical

regressions: Gender and race/ethnicity. To examine the *relationship between students' leader self-efficacy in college and perceived parenting behavior* (RQ1b), we completed the same hierarchical regression procedure with each of the seven positive parenting behaviors after controlling for enrollment status, academic year, and overparenting. Because this study was focused on identifying the relationship between positive parenting behaviors and leadership, overparenting served as a control, not a predictor. For parenting behaviors that predicted leader self-efficacy above and beyond control variables and overparenting, we used separate hierarchical regressions to test for moderator effects (RQ3).

A similar process was employed for RQ2a and RQ2b -- i.e., hierarchical logistic regressions were used to predict leader emergence as represented by participation in college extracurricular activities, community service, or peer tutoring. These three items were chosen given the rapid growth of co-(extra)-curricular leadership opportunities (Martinez et al., 2020), the blossoming of college-based civic engagement (Gerstmann, 2018), and the unique position of peer tutoring as both co-curricular and classroom-based (Priest & Paula, 2016). For RQ2a, emergence was regressed onto each of the seven pre-college activities (controlling for enrollment status and academic year); significant predictors were then tested for moderator effects (RQ3). For RQ2b, emergence was regressed onto each of the seven

parenting behaviors (after controlling for enrollment status, academic year, and overparenting); significant predictors were then tested for moderator effects (RQ3). For all moderation analyses, mean centering was performed on the predictors to reduce multicollinearity (Dalal & Zickar, 2011). Given our focus on the role of positive parenting, we also tested each pairwise combination of positive parenting interactions with pre-college activities for predicting leader self-efficacy and leader emergence.

Results

Preliminary Analyses. Table 2 depicts the correlation matrix for all study variables. We chose not to assess each of our research questions using simultaneous regression with all predictors due to (a) concerns over multicollinearity and (b) awareness that our set of predictor activities did not represent the complete nomological network of all pre-college activities (see *omitted variable problem*, Keiser et al., 2016). Thus, we opted to assess each predictor separately, which better answered our questions about which activities and/or parenting behaviors, if any, predicted leader self-efficacy and emergence, rather than attempting to assess each predictors' relative weight to one another.

Table 2

Correlation matrix for study variables.

	Year	Enroll.	PR	FR	QTIM	IE	PP	MON	FC	HP	SC(BC)	SM(BC)	Serv(BC)	Emp(BC)	Extra(BC)	Fam(BC)	Tut(BC)	Efficacy	Emerg.	Gender	Black	Asian	Hispanic	ME
Year																								
Enrollment	-0.132																							
PR	-0.038	0.090	*0.890*																					
FR	0.017	0.035	0.427	*0.838*																				
QTIM	-0.006	0.106	0.621	0.542	*0.814*																			
IE	0.014	0.052	0.681	0.558	0.772	*0.890*																		
PP	0.003	0.043	0.450	0.593	0.533	0.565	*0.806*																	
MON	-0.118	0.098	0.496	0.505	0.469	0.483	0.503	*0.911*																
FC	-0.045	0.044	0.318	0.079	0.242	0.244	0.065	0.206	*0.759*															
HP	-0.032	-0.108	-0.159	0.221	-0.145	-0.133	0.162	0.095	-0.203	*0.750*														
Sports Captain (BC)	-0.012	0.090	0.032	0.075	0.128	0.085	0.097	0.169	0.070	-0.037														
Sports Member (BC)	-0.008	0.061	0.119	0.115	0.144	0.171	0.116	0.129	0.012	-0.066	0.357													
Service (BC)	-0.146	0.239	0.095	0.072	0.152	0.095	0.119	0.133	0.006	0.001	0.144	0.129												
Employment (BC)	0.098	-0.054	-0.010	-0.029	0.015	0.013	0.009	-0.005	-0.154	-0.041	0.176	0.151	0.037											
Extracurriculars (BC)	-0.139	0.072	0.087	0.047	0.135	0.086	0.118	-0.046	0.066	0.203	0.175	0.298	0.022											
Family (BC)	-0.002	0.035	-0.107	-0.126	-0.010	-0.068	-0.132	-0.146	-0.013	-0.043	-0.036	-0.184	0.005	-0.010	-0.052									
Tutoring (BC)	-0.081	0.074	0.019	-0.022	0.062	-0.018	0.040	0.068	0.029	0.000	0.090	0.047	0.127	0.045	0.184	0.104								
Efficacy	0.002	0.041	0.178	0.144	0.219	0.142	0.130	0.128	0.025	-0.011	0.139	0.072	0.105	0.083	0.131	0.060	0.083	*0.937*						
Emergence	-0.042	0.149	0.107	0.018	0.145	0.083	0.110	0.095	0.002	0.021	0.009	0.032	0.296	0.034	0.231	0.070	0.129	0.116						
Gender	-0.083	-0.008	0.045	-0.100	-0.020	-0.004	-0.067	-0.089	0.018	-0.068	-0.184	0.055	0.042	0.039	0.100	0.047	0.076	0.028						
Black	-0.014	0.002	-0.103	-0.002	-0.066	-0.084	-0.017	-0.041	-0.002	0.096	0.026	-0.010	-0.035	-0.030	0.020	-0.025	0.060	-0.033	0.052					
Asian	-0.129	-0.002	-0.105	-0.055	-0.068	-0.159	-0.062	-0.134	-0.085	0.045	-0.163	0.001	-0.137	-0.146	0.029	-0.015	0.081	-0.151	0.058	-0.024	-0.192			
Hispanic	0.006	-0.043	0.060	-0.025	0.056	0.062	0.017	0.009	0.088	-0.049	-0.055	-0.155	0.058	-0.085	0.170	0.053	0.077	-0.039	-0.077	-0.030	-0.112	-0.202		
Middle East	-0.015	0.018	-0.033	-0.015	-0.118	-0.064	-0.043	-0.023	0.035	0.093	-0.047	-0.091	-0.008	-0.098	-0.003	0.053	0.104	0.090	0.039	-0.082	-0.149	-0.087		
Other	0.098	-0.049	0.078	0.073	0.052	0.066	0.097	0.065	-0.056	0.092	0.096	0.049	0.035	-0.011	-0.006	0.016	0.064	-0.014	0.077	0.053	-0.003	0.020	-0.108	-0.195	-0.114	-0.084

Note: PR = relationship warmth, FR = family routine, QTIM = quality time, IE = incentives & encouragement, PP = proactive parenting, MON = parental monitoring, FC = family conflict, HP = helicopter parenting, and (BC) = before college. Alphas for measures of latent variables (parenting and efficacy) are given on the diagonal.

Research Question One: Predictors of Leader Self-Efficacy. Each of the seven pre-college activities was assessed in a hierarchical regression predicting leader self-efficacy over and above the controls (academic year, enrollment status). Three predictors of leader self-efficacy emerged -- sports team captain (ΔR^2 = .017, $F(1, 410)$ = 7.064, p = .008), community service/volunteering (ΔR^2 = .011, $F(1, 410)$ = 4.668, p = .031), and extracurriculars (ΔR^2 = .016, $F(1, 410)$ = 6.783, p = .010) were all associated with greater leader self-efficacy above and beyond controls. While there were no significant moderators on the relationships between the activities and self-efficacy, there was an interaction effect between service/volunteering and 'Asian/Asian American' (B = 13.753, p = .004). The relationship between service and leader self-efficacy was stronger for individuals who identified as Asian than those who identified as White. A similar interaction emerged between extracurriculars and 'Asian/Asian American' (B = 8.678, p = .046); the relationship between extracurriculars and self-efficacy was stronger for those who identified as Asian than those who identified as White.

Following pre-college activity analysis, each of the seven parenting behaviors was assessed in a hierarchical regression predicting leader self-efficacy above and beyond the controls (i.e., academic year, enrollment status, overparenting). Each parenting variable, except for family conflict, significantly predicted self-efficacy. Specifically, greater relationship warmth (ΔR^2 = .031, $F(1,409)$ = 13.265, p < .001), greater family routine (ΔR^2 = .023, $F(1,409)$ = 9.801, p = .002), more quality time (ΔR^2 = .054, $F(1,409)$ = 23.496, p < .001), greater incentives and encouragement (ΔR^2 = .020, $F(1,409)$ = 8.559, p = .004), more proactive parenting (ΔR^2 = .018, $F(1,408)$ = 7.314, p = .007), and higher monitoring (ΔR^2 = .016, $F(1,408)$ = 6.561, p = .01) were associated with greater leader self-efficacy above and beyond controls. Gender and race/ethnicity did not moderate the relationship between parenting and leader self-efficacy.

Interactions between parenting and pre-college activities predicting leader self-efficacy included relationship warmth with service (B = 4.352, $\chi^2(1, 408)$ = 4.367, p = 0.037), proactive parenting with service (B = 5.437, $\chi^2(1,$ 408) = 6.051, p = 0.014), parental monitoring with sports membership (B = 3.905, $\chi^2(1, 408)$ = 5.492, p = 0.020), parental monitoring with service (B = 6.347, $\chi^2(1, 408)$ = 10.440, p = 0.001), parental monitoring with family caretaking (B = -5.253, $\chi^2(1, 408)$ = 5.940, p = 0.015), and family conflict reverse-coded with sports membership (B = 2.595, $\chi^2(1, 408)$ = 4.138, p = 0.043).

Research Question Two: Predictors of Leader Emergence. Each of the seven pre-college activities was assessed in a logistic regression predicting involvement in college leadership activities, above and beyond the controls of academic year and enrollment status. Community service/volunteering ($\chi^2(1)$ = 29.619, p < .001, OR = 4.291 [2.533, 7.369]), extracurriculars ($\chi^2(1)$ = 19.978, p < .001, OR = 2.974 [1.846, 4.816]), and peer tutoring ($\chi^2(1)$ = 6.108, p = .013, OR = 1.780 [1.125, 2.863]) were significant predictors. Those who engaged in pre-college service were 4.291 times more likely to participate in a college leadership activity than those who did not do pre-college service, those who participated in pre-college extracurriculars were 2.974 times more likely, and those who participated in pre-college peer tutoring were 1.780 times more likely. Moderators were not significant.

Subsequent to the pre-college activity analysis, each of the seven parenting behaviors were assessed in a logistic regression predicting any college leadership emergence, above and beyond the controls (i.e., academic year, enrollment status, and overparenting). Quality time ($\chi^2(1)$ = 6.046, p = .014, OR = 1.406 [1.071, 1.857]) and proactive parenting ($\chi^2(1)$ = 4.010, p = .045, OR = 1.305 [1.006, 1.701]) emerged as significant predictors. Individuals who reported pre-college quality time with parents were 1.406 times more likely to participate in a college leadership activity, and individuals who reported pre-college proactive parenting were 1.305 times more likely. The relationship between quality time and emergence was moderated by gender ($\chi^2(1)$ = 10.320, p = .001, B = 0.893); the relationship was stronger among men. Race/ethnicity was not a significant moderator.

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Interactions between parenting and pre-college activities predicting leader emergence included relationship warmth with sports membership (OR = 0.588 [0.375, 0.900], $\chi^2(1, 408) = 6.032$, $p= 0.014$), relationship warmth with extracurriculars (OR = 2.347 [1.326, 4.298], $\chi^2(1, 408) = 8.728$, $p = 0.003$), quality time with sports membership (OR = 0.446 [0.239, 0.803], $\chi^2(1, 408) = 7.345$, $p = 0.007$), and incentives and encouragements with sports membership (OR = 0.606 [0.385, 0.939], $\chi^2(1, 408) = 5.047$, $p = 0.025$).

In summary, our results indicated significant pre-college predictors of our two outcomes: college leader self-efficacy and emergence. Sports team captaincy, service, extracurriculars, and all of the positive parenting behaviors except lack of family conflict predicted leader self-efficacy; similarly, community service, extracurriculars, peer tutoring, quality time, and proactive parenting predicted leader emergence. With regard to moderators, gender did moderate the relationship between quality time and emergence. Further, some parenting behaviors did strengthen the relationship between pre-college activities and emergence and efficacy outcomes. Figure 1 and Figure 2 below offer a depiction of the salient relationships.

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Figure 1

Unstandardized coefficients (B) for activity and parenting predictors of leader self-efficacy.

Activities	
Sports Captain	4.22
Sports Member	1.97
Community Service	4.06
Employment	2.17
Extracurriculars	4.40
Family Caretaker	3.34
Peer Tutoring	2.29

Parenting Behaviors	
Relationship Warmth	2.31
Family Routine	2.69
Quality Time	4.28
Incentives & Encouragement	2.64
Proactive Parenting	2.36
Parental Monitoring	2.16
Family Conflict	0.56
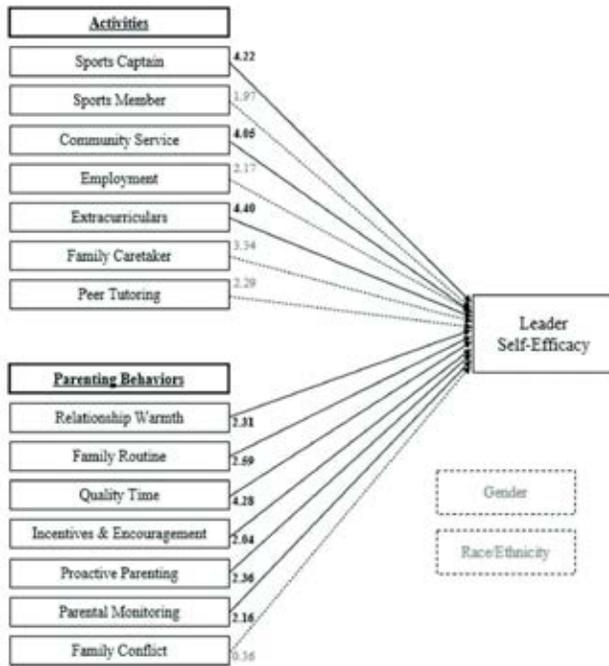
Note. Significant effects are bolded with solid lines. There were no significant moderation effects.

Figure 2

Odds ratios (OR) for activity and parenting predictors of leader emergence.

Activities	
Sports Captain	0.97
Sports Member	1.14
Community Service	4.29
Employment	1.23
Extracurriculars	2.97
Family Caretaker	1.51
Peer Tutoring	1.78

Parenting Behaviors	
Relationship Warmth	1.21
Family Routine	1.00
Quality Time	1.41
Incentives & Encouragement	1.18
Proactive Parenting	1.30
Parental Monitoring	1.21
Family Conflict	1.02

$B = 0.59$
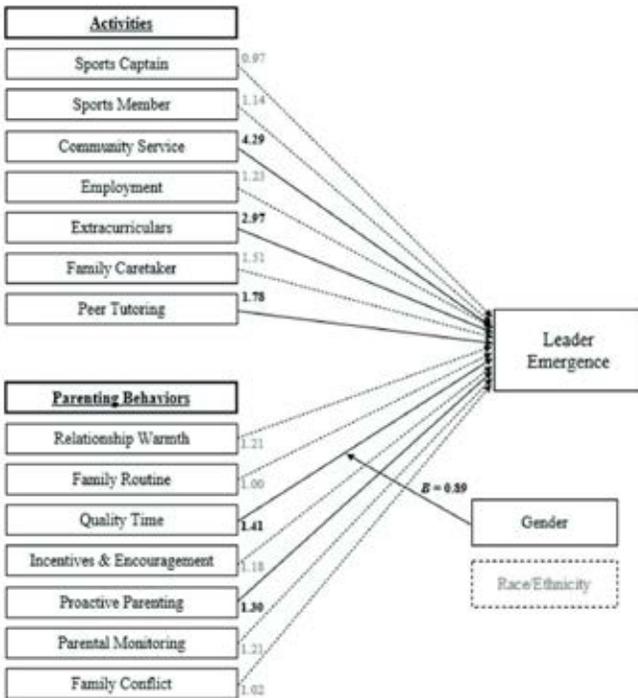
Note. Significant effects are bolded with solid lines. Only significant moderator effects are shown.

Discussion

Pre-College Activities as Predictors of Leader Self-Efficacy and Leader Emergence. We found that positional leadership in pre-college sports, community service, and extracurriculars significantly predicted college-based leader self-efficacy. Our findings support earlier studies theorizing that "seeds" for leadership development are planted throughout the lifespan (Murphy & Johnson, 2011) and align with prior research noting sports and student government as important factors in child leader development (e.g., Larson et al., 2006; O'Dell et al., 2016). Importantly, our findings suggest that individuals who partake in sports, service, and/or extracurriculars develop more confidence in themselves to lead and, per Hannah et al.'s (2008) definition of leader self-efficacy, believe others will support their leadership. In their work, Axelrod (2017) posited two types of self-confidence essential for leadership development: General self-confidence "which is a stable personality trait that develops in early childhood, and specific self-confidence, which is a changing mental and emotional state associated with the specific task or situation at-hand" (p. 1). Subsequently, then, pre-college activities may shape the development of both and bolster leadership capacities through and beyond childhood.

As part of our exploration of self-efficacy, we also discovered that identifying as Asian/Asian American strengthened the relationship between service and self-efficacy as well as the relationship between extracurriculars and self-efficacy. While additional research is critical to explore the intersections of race and leader self-efficacy in college, writ large, these preliminary findings resonate with existing scholarly observations. According to Zhou and Xiong (2005), Asian Americans are among the most rapidly growing racial groups in the U.S. given immigration waves of the late 20th century. This observation suggests a significant number of first-generation immigrant youth, and, according to Wray-Lake et al. (2015), first-generation immigrant youth are more civically engaged than second-generation immigrant youth. Suggested in this context is that Asian youth might be engaging deeply and earnestly in pre-college service and extracurricular activities in a manner that catalyzes their leader self-efficacy once in college.

With regard to pre-college activities and leader emergence, our findings noted that students who participated in community service/volunteering, extracurriculars, and peer tutoring pre-college were more likely to engage in leadership activities during college. This discovery supports previous studies, which have shown civic engagement to be a powerful driver for leadership development (e.g., Johnson & Woodard, 2014). Our results also highlight that pre-college participation in extracurriculars, such as camps and academies, can influence leadership development (Bates et al., 2019) and underscore the leadership connection to peer tutoring (e.g., Hogan, 2000). Moreover, the three significant predictors (volunteering, extracurriculars, and tutoring) are analogous to the three college activities we defined as part of leader emergence (see Methods). This further substantiates prior theories that leader development is cyclical in nature, such that involvement in an activity earlier in life creates a leader self-identity that subsequently makes continued involvement in that activity more likely (e.g., Day et al., 2014). Interestingly, whereas pre-college sports involvement predicted college-based leader self-efficacy in this study, the activity did not surface as significant to leader emergence. This observation suggests that pre-college activities that predict emergence may not predict self-efficacy (and vice versa).

Parenting Behaviors as Predictors of Leader Self-Efficacy and Leader Emergence. In our work, we found that participants who spent greater quality time with their parents, enjoyed a family routine and experienced greater warmth, proactive parenting, and more parental monitoring noted higher leader self-efficacy. This finding supports Bornstein's (2009) view that, via consistent quality time, parents may transmit values/customs to their children, and it aligns with Bowlby's (1988) work noting safe parent-child relationships as grounds for nurturing environments that inspire autonomy and self-confidence. Given that our study considered overparenting in relation to positive parenting, we discovered that many of

these positive behaviors predicted leader self-efficacy above and beyond overparenting effects, suggesting that overparenting may be softened by nurturing and proactive behaviors.

With respect to parenting behaviors and leader emergence, our study found that participants' perceived pre-college quality time with parents as well as perceptions of proactive pre-college parenting emerged as significant predictors of leader emergence. This result concurs with Bornstein's (2009) work noting the importance of parent-child quality time to developing youths' capacities through parent transmissions about values and norms. The finding also underscores Murphy and Johnson's (2011) observations about the "seeds" of leadership and upholds "parenting" as a viable early influence on leadership development. Interestingly, our work also speaks to Murphy and Johnson's (2011) emphasis on an individual's demographics (e.g., genetics, gender) as a seed or early influence: We found that the relationship between quality time and leader emergence in college is stronger among men than women. While, as with race/ethnicity, more intentional work must be done to understand this finding, it preliminarily draws attention to the intersection of access to leadership and gender (Ulfah et al., 2019) and generates speculation that the men in the sample may have claimed more quality time.

Interactions between Parenting Behavior and Pre-College Activities Toward Outcomes. In terms of significant interactions between parenting and pre-college activities for predicting leader self-efficacy, we found that positive parenting strengthened the relationship between pre-college activities and leader self-efficacy. This finding makes sense given the known relationship between positive feedback and developmental activities (DeRue & Wellman, 2009). With regard to leader emergence, however, the results were more unexpected: Increases in positive parenting (i.e., relationship warmth, quality time, incentives/encouragements) decreased the strength of the relationship between sports membership and emergence. This finding is contrary to prior research indicating parental involvement in sports produces

better experiences and leadership outcomes (Harwood & Knight, 2015). However, we note one important caution in interpreting these interaction effects: The survey questions on positive parenting behaviors were not written to target the *feedback* of parents given to children *in response to* their participation in pre-collegiate activities. Thus, it is impossible to know which parenting behaviors extended into specific activities. We suspect that the design limitations of the study preclude the power to identify significant interaction effects, as demonstrated by Murphy and Russell (2016). Future research should directly test the *combination* of pre-college activities with parental feedback and/or parents as role models.

Limitations

While this exploratory study offers potentially helpful findings, it does have limitations. First, we analyzed data from college students reflecting on their adolescence, yet, perceptions of adolescent activities and parental relationships may be biased by memory recall and time. Secondly, while our study classified "extracurriculars" as a singular activity, "extracurriculars" encompass multiple activities and would benefit from parsing. Third, because this study is focused on identifying the relationship between positive parenting behaviors and leadership, overparenting was entered as a control rather than a predictor, and this choice could be seen as a limitation that precludes full visibility into the role of overparenting. Moreover, we noticed in the process of our analysis that overparenting was not a significant predictor when it was entered in the second step of our three-step regression, which contradicts Liu et al. (2019).

Implications

As noted in Limitations, forthcoming research may seek to pinpoint specific "extracurricular" and "service activities" as predictors of leader development by parsing out these larger categories into discrete

activities. Moreover, specific intervention-based studies assessing the pre- and post- leader self-efficacy of participants of these programs would be tremendously helpful in identifying and evaluating these pre-college activities. Aligned with this future direction for scholarship, we propose that new studies examining pre-college factors and college leadership outcomes explore intersections with students' race, gender identity, socioeconomic status, age, familial culture, and college-going generational status, and, perhaps, do so via narrative in order to shine a light on students' voices and leadership learning stories. Further, enhanced research on parenting would be of great benefit. Future work should directly compare negative and positive parenting and its effects on leader development.

In addition to offering thoughts for future research, our study highlighted ideas for practice. By understanding college students' roots, student development educators can be more intentional in crafting leadership education and development programs that are holistic and engage students with care for "leadership across the lifespan." At the college level, we must take the time to get to know our students -- whether in curricular or co-curricular leadership learning -- and seek to discover the early development interactions and experiences that helped shape them. Program pre-assessments, retreats, journals, peer discussions, creative projects, and one-on-one conversations can serve to uncover the richness and the needs students carry with them.

In addition to reframing college-based leadership education programs, as college student development educators, we must also reach out to our K-12 partners and support the pipeline work nurturing Murphy and Johnson's (2011) seeds of leadership. By providing greater access to activities beyond academics in K-12 settings, universities can help their K-12 partners introduce students to a broader range of leadership opportunities at a young age. Specifically, heightened access to volunteering opportunities allows students to participate in roles carrying more responsibility, thus, enabling them to develop further their leadership potential. In addition, universities can leverage relationships with middle and high schools' sports programs to prioritize leadership behaviors when

recruiting and training student-athletes. Colleges and universities can help champion these initiatives in an effort to provide earlier exposure to such opportunities within schools and other youth institutions.

Furthermore, we must not only offer our collaboration in pre-college leadership program design, but we must also play a role in reinforcing positive parenting behaviors in youths' pre-college moments because they inspire leadership emergence and self-efficacy as students age. While K-12 educators and community leaders have the deepest connections with parents in the pre-college years, colleges can, as Dugan and Komives (2007) suggested, bridge-build with these community partners who regularly interface with parents within and outside of the academic arena. These partnerships can support cross-institutional programming aimed at educating parents about their role as gatekeepers and supporters of their child's leadership development. Together, educators can strive to increase dissemination and bolster constructive parental involvement toward their students' leadership development.

Conclusion

In their leadership development work, Dugan and Komives (2007) noted that "What students came to college with largely explained how they developed in college" (p. 15) -- i.e., college students are not "blank slates." Pre-college factors matter in the context of college-based leadership development, and long before college, students engage with a variety of systems and early experiences (Murphy & Johnson, 2011) that may influence their leadership pathways. Thus, our study aimed to unpack this phenomenon further and, subsequently, found that select pre-college parenting behaviors (e.g., quality time) and student activities (e.g., sports, service) influenced leader emergence and leader self-efficacy in college. These findings suggest that, at the college level, in order to "meet students where they are" regarding leadership development, we need to get to know our incoming students better (e.g., pre-college experiences, early engagements that shaped them). Further, this study's results point to the importance of

collaboration with the K-12 community and how colleges can help K-12 partners introduce students to a broader range of leadership opportunities at a young age. For our community of educators and scholars focused on student development, these findings might bolster our holistic understanding of students' journeys and scaffold our work as we support students and their families in planting "seeds" not only for leadership development, but also for lifelong learning.

Acknowledgements

References

Alkharusi, H. (2012). Categorical variables in regression analysis: A comparison of dummy and effect coding. *International Journal of Education*, *4*(2), 202-210. http://dx.doi.org/10.5296/ije.v4i2.1962

Astin, A. W. (1991). *Assessment for excellence: The philosophy and practice of assessment and evaluation in higher education*. American Council on Education.

Axelrod, R. H. (2017). Leadership and self-confidence. In J. Marques, S. Dhiman (Eds.), *Leadership Today* (pp. 297-313). Springer. https://doi.org/10.1007/978-3-319-31036-7_17

Bates, S., Anderson-Butcher, D., Niewoehner-Green, J., & Provenzano, J. (2019). Exploration of a college and career readiness leadership program for urban youth. *Journal of Youth Development*, *14*(3) 160-182. https://doi.org/10.5195/jyd.2019.664

Baumrind, D. (1966). Effects of authoritative parental control on child behavior. *Child Development*, *37*(4), 887–907. https://doi.org/10.2307/1126611

Bornstein, M. H. (1989). Sensitive periods in development: Structural characteristics and causal interpretations. *Psychological Bulletin*, *105*(2), 179-197. https://doi.org/10.1037/0033-2909.105.2.179

Bornstein, M. H. (2009). Toward a model of culture↔parent↔child transactions. In A. J. Sameroff (Ed.), *The transactional model of development: How children and contexts shape each other* (1st ed., pp. 139–161). American Psychological Association. https://doi.org/10.1037/11877-008

Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, *32*(7), 513–531. https://doi.org/10.1037/0003-066X.32.7.513

Burke, S., & Collins, K. M. (2001). Gender differences in leadership styles and management skills. *Women in Management Review, 16*(5), 244-256. https://doi.org/10.1108/09649420110395728

Child and Family Center. (2005). Parent interview (FPIS). [Measurement instrument]. Child and Family Center, University of Oregon, Eugene, OR.

Dalal, D. K., & Zickar, M. J. (2012). Some common myths about centering predictor variables in moderated multiple regression and polynomial regression. *Organizational Research Methods*, *15*(3), 339-362. https://doi.org/10.1177/1094428111430540

Darlow, V., Norvilitis, J. M., & Schuetze, P. (2017). The relationship between helicopter parenting and adjustment to college. *Journal of Child and Family Studies*, *26*(8), 2291–2298. https://doi.org/10.1007/s10826-017-0751-3

Day, D. V., Fleenor, J. W., Atwater, L. E., Sturm, R. E., & McKee, R. A. (2014). Advances in leader and leadership development: A review of 25 years of research and theory. *The Leadership Quarterly, 25*(1), 63-82. https://doi.org/10.1016/j.leaqua.2013.11.004

DeRue, D., & Ashford, S. (2010). Who will lead and who will follow? A social process of leadership identity construction in organizations. *The Academy of Management Review*, *35*(4), 627–647. https://doi.org/10.5465/amr.35.4.zok627

DeRue, D. S., & Wellman, N. (2009). Developing leaders via experience: The role of developmental challenge, learning orientation, and feedback availability. *Journal of Applied Psychology, 94*(4), 859-875. https://doi.org/10.1037/a0015317

Dishion, T. J., & McMahon, R. J. (1998). Parental monitoring and the prevention of child and adolescent problem behavior: A conceptual and empirical formulation. *Clinical Child and Family Psychology Review, 1*(1), 61–75. https://doi.org/10.1023/A:1021800432380

Dugan, J. P., & Humbles, A. D. (2018). A paradigm shift in leadership education: Integrating critical perspectives into leadership development. *New Directions for Student Leadership, 2018*(159), 9-26. https://doi.org/10.1002/yd.20294

Dugan, J. P., & Komives, S. R. (2007). *Developing leadership capacity in college students: Findings from a national study.* A Report from the Multi-Institutional Study of Leadership. National Clearinghouse for Leadership Programs.

Eagly, A. H., & Chin, J. L. (2010). Diversity and leadership in a changing world. *American Psychologist, 65*(3), 216-224. https://doi.org/10.1037/a0018957

Fox, K. F. (2018). Leveraging a leadership development framework for career readiness. *New Directions for Student Leadership, 2018*(157), 13-26. https://doi.org/10.1002/yd.20276

Gerstmann, E. (2018). Protests, free speech and college campuses. *Social Education, 82*(1), 6–9. https://www.socialstudies.org/system/files/publications/articles/se_820106.pdf

Grogan, M. (1999). Equity/equality issues of gender, race, and class. *Educational Administration Quarterly, 35*(4), 518-536. https://doi.org/10.1177/00131619921968743

Guthrie, K. L., Jones, T. B., & Osteen, L. (Eds.). (2016). *Developing culturally relevant leadership learning: New directions for student leadership, Number 152*. Wiley.

Hannah, S. T., Avolio, B. J., Luthans, F., & Harms, P. D. (2008). Leadership efficacy: Review and future directions. *Leadership Quarterly, 19*(6), 669-692. https://doi.org/10.1016/j.leaqua.2008.09.007

Hannah, S. T., Avolio, B. J., Walumbwa, F. O., & Chan, A. (2012). Leader self and means efficacy: A multi-component approach. *Organizational Behavior and Human Decision Processes, 118*(2), 143-161. https://doi.org/10.1016/j.obhdp.2012.03.007

Harwood, C. G., & Knight, C. J. (2015). Parenting in youth sport: A position paper on parenting expertise. *Psychology of Sport and Exercise, 16*(1), 24-35. https://doi.org/10.1016/j.psychsport.2014.03.001

Hogan, C. J. (2000). The impact of a peer-led program on the peer leaders' leadership-related skills. [Unpublished master's thesis]. Virginia Commonwealth University. https://doi.org/10.25772/DM3D-KA92

Johnson, M., & Woodard, J. (2014). The role of civic engagement in undergraduate leadership courses. *Journal of Leadership Education, 13*(1), 1-13. https://doi.org/10.12806/V13/I1/R1

Kirkpatrick, S. A., & Locke, E. A. (1991). Leadership: Do traits matter? *Academy of Management Perspectives, 5*(2), 48-60. https://doi.org/10.5465/ame.1991.4274679

Kodama, C. M., & Dugan, J. P. (2013). Leveraging leadership efficacy for college students: Disaggregating data to examine unique predictors by race. *Equity & Excellence in Education, 46*(2), 184-201. https://doi.org/10.1080/10665684.2013.780646

Komives, S. R., Dugan, J. P., Owen, J. E., Slack, C., & Wagner, W. (2006). *The handbook for student leadership programs* (2nd ed.). National Clearinghouse for Leadership Programs.

Komives, S. R., & Sowcik, M. (2020). The status and scope of leadership education in higher education. *New Directions for Student Leadership*, *2020*(165), 23-36. https://doi.org/10.1002/yd.20366

Kuh, G. D., Kinzie, J. L., Buckley, J. A., Bridges, B. K., & Hayek, J. C. (2006). *What matters to student success: A review of the literature.* National Postsecondary Educational Cooperative.

Larson, R. W., Hansen, D. M., & Moneta, G. (2006). Differing profiles of developmental experiences across types of organized youth activities. *Developmental Psychology*, *42*(5), 849-863. https://doi.org/10.1037/0012-1649.42.5.849

LeMoyne, T., & Buchanan, T. (2011). Does "hovering" matter? Helicopter parenting and its effect on well-being. *Sociological Spectrum*, *31*(4), 399–418. https://doi.org/10.1080/02732173.2011.574038

Liu, Z., Riggio, R. E., Day, D. V., Zheng, C., Dai, S., & Bian, Y. (2019). Leader development begins at home: Overparenting harms adolescent leader emergence. *Journal of Applied Psychology*, *104*(10), 1226–1242. https://doi.org/10.1037/apl0000402

Martinez, N., Sowcik, M., & Bunch, J. C. (2020). The impact of leadership education and co-curricular involvement on the development of socially responsible leadership outcomes in undergraduate students: An exploratory study. *Journal of Leadership Education*, *19*(3), 32-40. https://doi.org/10.12806/V19/I3/R3

McCarron, G. P., & Inkelas, K. K. (2006). The gap between educational aspirations and attainment for first generation college students and the role of parental involvement. *Journal of College Student Development, 47*(5), 534–549. https://doi.org/10.1353/csd.2006.0059

McEachern, A. D., Dishion, T. J., Weaver, C. M., Shaw, D. S., Wilson, M. N., & Gardner, F. (2012). Parenting Young Children (PARYC): Validation of a self-report parenting measure. *Journal of Child and Family Studies*, *21*(3), 498-511. https://doi.org/10.1007/s10826-011-9503-y

Metzler, C. W., Biglan, A., Ary, D. V., & Li, F. (1998). The stability and validity of early adolescents' report of parenting constructs. *Journal of Family Psychology, 12*(4), 600-619. https://doi.org/10.1037/0893-3200.12.4.600

Murphy, S. E. (2018). Leadership development starts earlier than we think: Capturing the capacity of new leaders to address the leader talent shortage. In R.E. Riggio (Ed.), *What's wrong with leadership: Improving leadership research and practice* (pp. 209-225). Routledge. https://doi.org/10.4324/9781315163604-12

Murphy, S. E., & Johnson, S. K. (2011). The benefits of a long-lens approach to leader development: Understanding the seeds of leadership. *The Leadership Quarterly*, *22*(3), 459-470. https://doi.org/10.1016/j.leaqua.2011.04.004

Murphy, K. R., & Russell, C. J. (2016). Mend it or end it: Redirecting the search for interactions in the organizational sciences. *Organizational Research Methods, 20*(4), 549-573. https://doi.org/10.1177/1094428115625322

Northouse, P. (2018). *Leadership theory and practice* (8th ed.). Sage.

O'Dell, I., Smith, M. R., & Born, J. E. (2016). The effect of pre-college involvement on leadership efficacy, citizenship and social change behaviors among college students. *College Student Journal*, *50*(1), 71-85.

Owen, J. E. (Ed.). (2015). *Innovative Learning for Leadership Development: New Directions for Student Leadership, Number 145*. Wiley.

Pianta, R. C. (1992). *Child-parent relationship scale*. [Measurement instrument]. https://curry.virginia.edu/faculty-research/centers-labs-projects/castl/measures-developed-robert-c-pianta-phd

Pianta, R. C. (2001). *The student-teacher relationship scale*. [Measurement instrument]. https://curry.virginia.edu/faculty-research/centers-labs-projects/castl/measures-developed-robert-c-pianta-phd

Popper, M., & Mayseless, O. (2003). Back to basics: Applying a parenting perspective to transformational leadership. *The Leadership Quarterly, 14*(1), 41-65. https://doi.org/10.1016/S1048-9843(02)00183-2

Priest, K. L., & Paula, A. D. C. (2016). Peer-led learning communities: Exploring integrative high-impact educational practices for leadership education. *Journal of Leadership Education*, *15*(1), 86-95. https://doi.org/10.12806/V15/I1/A1

Reitan, T., & Stenberg, S. Å. (2019). From classroom to conscription. Leadership emergence in childhood and early adulthood. *The Leadership Quarterly*, *30*(3), 298-319. https://doi.org/10.1016/j.leaqua.2018.11.006

Riggio, R. E., & Mumford, M. D. (2011). Introduction to the special issue: Longitudinal studies of leadership development. *The Leadership Quarterly*, *22*(3), 453–456. https://doi.org/10.1016/j.leaqua.2011.04.002

Rost, J. C., & Barker, R. A. (2000). Leadership education in colleges: Toward a 21st century paradigm. *Journal of Leadership Studies*, *7*(1), 3-12. https://doi.org/10.1177/107179190000700102

Ryan, R. M., Stiller, J. D., & Lynch, J. H. (1994). Representations of relationships to teachers, parents, and friends as predictors of academic motivation and self-esteem. *Journal of Early Adolescence*, *14*(2), 226–249. https://doi.org/10.1177/027243169401400207

Schiffrin, H. H., Yost, J. C., Power, V., Saldanha, E. R., & Sendrick, E. (2019). Examining the relationship between helicopter parenting and emerging adults' mindsets using the consolidated Helicopter Parenting Scale. *Journal of Child and Family Studies*, *28*(5), 1207–1219. https://doi.org/10.1007/s10826-019-01360-5

Stebleton, M. J., Kaler, L. S., Diamond, K. K., & Lee, C. (2020). Examining career readiness in a liberal arts undergraduate career planning course. *Journal of Employment Counseling*, *57*(1), 14-26. https://doi.org/10.1002/joec.12135

Towler, A. (2005). Charismatic leadership development: Role of parental attachment style and parental psychological control. *Journal of Leadership & Organizational Studies*, *11*(4), 15–25. https://doi.org/10.1177/107179190501100402

Ulfah, F., Yulindrasari, H., & Adriany, V. (2019). *Early childhood education in the 21st century*. Routledge. https://doi.org/10.1201/9780429434914

U.S. Census Bureau. (n.d.). *About race*. Retrieved July 5th 2020, from https://www.census.gov/topics/population/race/about.html

Wagner, W., & Pigza, J. M. (Eds.). (2016). *Leadership development through service-learning: New directions for student leadership, Number 150*. Wiley.

White, J. (2015). *The influence of parenting on the development of transformational leadership behaviors* [Doctoral dissertation, Widener University]. ProQuest Dissertations.

Wray-Lake, L., Rote, W., Gupta, T., Godfrey, E., & Sirin, S. (2015). Examining correlates of civic engagement among immigrant adolescents. *Research in Human Development*, *12*(1-2), 10–27. http://doi.org/10.1080/15427609.2015.1010343

Zaccaro, S. J., Green, J. P., Dubrow, S., & Kolze, M. (2018). Leader individual differences, situational parameters, and leadership outcomes: A comprehensive review and integration. *The Leadership Quarterly*, *29*(1), 2-43. https://doi.org/10.1016/j.leaqua.2017.10.003

Zhou, X., & Bowers, A. (2020). A typology of parental involvement in student experience: A latent class analysis. *The High School Journal*, *103*(2), 99-131. https://doi.org/10.1353/hsj.2020.0005

Zhou, M., & Xiong, Y. S. (2005). The multifaceted American experiences of the children of Asian immigrants: Lessons for segmented assimilation. *Ethnic and Racial Studies*, *28*(6), 1119-1152. https://doi.org/10.1080/01419870500224455