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Benefits Derived by College Students from Mentoring At-Risk Youth in a Service-Learning Course

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Abstract Service learning is increasingly being used as a pedagogical strategy for promoting the development of civic-mindedness among university students. Despite the use of this strategy, little is known about the benefits derived from specific types of service-learning experiences. Additionally, few notable studies have examined the unique outcomes experienced by mentors of at-risk youth. Therefore, this study examines the civic-related benefits that college students derive from mentoring at-risk youth within a structured, service-learning course. A series of linear regression models were estimated to determine if there were significant post-intervention differences between the treatment and comparison condition for the variables of interest, after adjusting for key background factors and pre-intervention levels of all variables. The results indicated that, in comparison to college students who did not participate in the course (n = 258), college student in Campus Corps, a youth mentoring program, (n = 390) had significantly higher scores at post-intervention regarding mentors' civic attitudes, community service self-efficacy, self-esteem, interpersonal and problem solving skills, political awareness, and civic action. Findings hold important implications for youth mentoring programs and future research.

Keywords Service-learning · Youth mentoring · College students · Civic-related outcomes · At-risk youth · Experiential learning

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Introduction

Universities are increasingly investing in service learning as a pedagogical strategy (Reeb 2010) for promoting the development of socially responsible knowledge and values among students (Altman 1996). Consistent with the principles and assumptions of community psychology (Reeb 2010), the ultimate goal of service learning is to produce graduates who are civically-minded (Bringle et al. 1999; Bringle and Steinberg 2010). Ideally, these graduates become knowledgeable, skilled, and active citizens in their communities, assuming influential roles in empowering others and in enhancing their quality of life. A growing body of empirical evidence indicates that well-designed service-learning courses are successful in preparing civic-minded graduates (see Bringle and Steinberg).

Another goal of service learning is to engage students in activities that may fill identified community needs. Although additional research is needed on the community impact of service-learning (Reeb and Folger 2013; Stoecker and Tryon 2009), university service-learning programs seem

well-situated to provide support to at-risk youth (Davidson et al. 2010; Reeb et al. 1999). For example, for approximately 30 years, a program considered to be an exemplar in service-learning, the Adolescent Diversion Project (Davidson et al.) has engaged students as change agents who work one-on-one with youth involved with the juvenile justice system providing advocacy and behavioral interventions. Evaluation efforts have shown this program is benefiting students, youth, and the community (Davidson et al. 1990; Smith et al. 2004).

Similarly, positioning a youth mentoring program within the context of a service-learning course, such as the program evaluated in the present study, holds promise for simultaneously benefiting program participants. Strong empirical evidence exists for the influential role that supportive non-parental adults have in the lives of adolescents (Beam et al. 2002; Rhodes et al. 2002; Sterrett et al. 2011). In fact, the presence of a competent, caring adult has been identified as a critical and necessary protective factor for youth at risk (Hurd et al. 2010; Masten and Reed 2002; Rhodes et al.). Youth who do not have access to such adults could benefit from the additional social support that can be found in a formal mentoring program. Recent meta-analyses (DuBois et al. 2002, 2011) revealed that mentoring programs can produce positive outcomes for youth across behavioral, social, emotional, and academic domains of development when implemented effectively. However, mentoring programs tend to have long waitlists because of difficulty recruiting and sustaining quality mentors (Jucovy 2001). Only about 3 million of the nearly 18 million children who want or need a mentor in the US have a formal relationship with a mentor (MENTOR 2012). Furthermore, about half of mentoring relationships dissolve prior to the end of their commitment (Pryce and Keller 2012; Rhodes 2002), and the rate is even higher for youth with more complex problems (Grossman and Rhodes 2002). Service-learning programs may be able to remedy this situation by drawing on university resources to recruit and train large numbers of effective mentors and provide essential support for the relationship.

Although some research has evaluated the impacts of mentoring on the mentor, this is an understudied area with important implications. For instance, programs in which service providers (e.g., mentors) benefit from the experience are more likely to attract volunteers and report low turnover (Caldarella et al. 2010; Dwiggins-Beeler et al. 2011). Furthermore, it is important to evaluate whether participating as a mentor to an at-risk youth within a service-learning context will promote civic mindedness among mentors, a primary goal of service-learning courses. Despite notable qualitative work (e.g., Hughes et al. 2009) and related empirical work on youth-adult partnerships (e.g., Davidson et al. 2010; Reeb et al. 1999; Zeldin et al. 2013), no known quantitative study has specifically examined the benefits derived from mentoring an at-risk youth within a service-learning context. Thus, the current study aims to quantitatively evaluate the effects of mentoring within a service-learning course for college student mentors. Specifically, mentors' experience of *Campus Corps: Therapeutic Mentoring of At-Risk Youth* will be evaluated. Results hold implications for college student mentors, youth mentoring programs, and future research in mentoring, experiential learning, and community psychology.

Literature Review

> Service-learning is defined by Bringle and Hatcher (1995) as a:
> Credit-bearing educational experience in which students (a) participate in an organized service activity that meets identified community needs and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the discipline, and an enhanced sense of civic responsibility. (p. 222).

A primary goal of service-learning is to develop civic-mindedness in students, or a sense of responsibility and a commitment to actively engage in one's community (Bringle and Steinberg 2010). These authors developed a conceptual framework for the construct of a civic-minded graduate, which is comprised of seven of the most central components to be manifested in a civic-minded graduate. These include: academic knowledge and technical skills, knowledge of volunteer opportunities and nonprofit organizations, knowledge of contemporary social issues, listening and communication skills, diversity skills, self-efficacy, and intentions for civic behavior. Through service-learning, many of these outcomes are made possible.

The body of evidence in support of service-learning outcomes is growing (see Bringle and Steinberg 2010). Participation in service learning has been shown to enhance students' rate of retention in college (Kuh et al. 2005). Evidence exists that service-learning promotes academic outcomes (e.g., GPA, writing and critical thinking skills, mastery of content) (Batchelder and Root 1994; Jameson et al. 2008; Vogelgesang and Astin 2000). Empirical evidence also indicates that participating in high-quality service learning improves students' awareness of community problems (Astin and Sax 1998; Driscoll et al. 1996), sense of social responsibility (Eyler and Giles 1999; Fenzel and Peyrot 2005), diversity skills (Astin et al. 1999; Driscoll et al.; Eyler et al. 1997; Fitch 2004), feelings of self-efficacy for community service (Reeb et al. 2010), and increases their intentions to participate in future community service (Astin et al.; Fenzel and Peyrot). Furthermore, students develop

communication and problem solving skills (Batchelder and Root; Osborne et al. 1998). However, service-learning outcomes may vary by the type of service-learning activity. As recommended, it is important to measure outcomes that have been identified as consistent across a variety of service-learning activities, as well as those that are targeted by the specific service-learning course.

Mentoring At-Risk Youth Within Service-Learning

Although much is known about the general benefits of service learning, less is known about the effects of mentoring on the mentor, specifically (Blinn-Pike 2007). Due to the reciprocal nature of the mentoring relationship, it is posited that mentors experience a variety of outcomes as a result of their participation in a mentoring relationship (Schmidt et al. 2004; Taussig et al. 2010). In his review of relevant literature, Hall (2003) found that benefits to mentors can be classified in terms of self-esteem, social insight, and interpersonal skills. Rhodes (2002) came to similar conclusions in her review of the risks and rewards of mentoring youth, indicating that mentors experience improved health, self-esteem, insight into one's own childhood or children, and public recognition.

A few noteworthy qualitative studies have specifically examined mentoring within service learning. Jackson (2002) examined the outcome of a mentoring program aimed at providing at-risk delinquent adolescents' with a positive, prosocial role model. Mentors indicated that their participation in resulted in a greater understanding of adolescent development and enhanced education-related goal orientation. Similarly, Schmidt et al. (2004) found that college student mentors of at-risk fourth graders were likely to report they had learned lessons about children, themselves, and their work as a mentor. Harwood and Radoff (2009) also found that mentors described a change in their own community attitudes as a result of mentoring. Notably et al. (2009) evaluated mentors experiences of mentoring youth attending high poverty high schools. Through qualitative analysis, results indicated benefits to mentors, including enhanced understanding of the challenges of poverty and what it is like for many of their mentees to live in poverty, and increased student commitment to civic participation. Lastly, Banks (2010) analyzed written reflections of service-learning mentors of middle school girls for the purpose of engaging them in math and science. Banks found several unique themes, including valuing of the all-female setting, recognizing culture (especially between African American and Caucasian women), learning to negotiate within group dynamics, affirming abilities, and reinforcing career choices. Upon completion of the study, Banks called for a more explicit evaluation of the mentor experience as part of mentoring program evaluations.

Campus Corps: Therapeutic Mentoring of At-Risk Youth

Campus Corps is a unique university-based service-learning course in which college students from Colorado State University serve as mentors for at-risk youth (ages 10–18) within a 12-week time-limited, structured mentoring community. Campus Corps was developed in response to community initiatives to strengthen community systems to better serve at-risk youth and their families. Campus Corps operates four nights per week with each youth and his or her mentor attending one night per week along with 30 other mentor–mentee pairs. Consistent with the principles of positive youth development, community psychology, and youth–adult partnerships (e.g., Camino 2000; Zeldin et al. 2013), these pairs are organized into intentional Mentor Families (i.e., small groups of four mentor–mentee pairs who engage in activities together) within a larger mentoring community

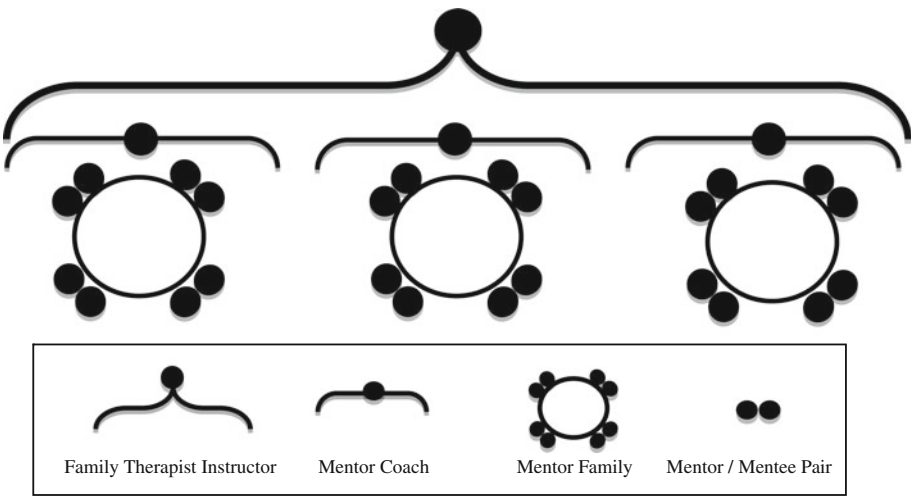

Fig. 1 Mentoring structure of Campus Corps program

(see Fig. 1). The program aims to provide mutual benefits for both youth mentees and student mentors.

Youth who participate in Campus Corps are considered at risk of offending or re-offending due to a variety of reasons (e.g., failing grades, truancy, substance use). Youth are referred from local agencies including the District Attorney's (DA's) Office, the Probation Department, the Department of Human Services, and the local school district. At the time of this study, 70 % of youth possess at least one charge with the juvenile justice system. The program aims to reduce youth recidivism rates and correlates (e.g., substance use, academic failure) by engaging youth in meaningful relationships and activities that will improve their educational outcomes and productively engage them with the community. Program evaluation efforts are in place to evaluate the effectiveness of Campus Corps in with respect to its promotion of positive youth outcomes.

The Campus Corps service learning course aims to prepare university students to become highly skilled, civically engaged human service professionals and community leaders. University students enrolled in Campus Corps apply critical thinking skills to examine issues relevant for at-risk youth; analyze and apply models of social justice; consider the themes of identity and adolescent development; apply theories of mentoring and best practices; develop professional skills including motivational interviewing, group facilitation, case record keeping, written and oral communication; and effectively interact as a mentor with adolescent mentees in a developmentally appropriate manner. Student learning is assessed through weekly reflection journals, case documentation, activity planning and implementation, and writing assignments.

The 3-credit upper division service-learning course is offered to all majors by the Human Development and Family Studies Department (HDFS) and supervised by faculty in the Marriage and Family Therapy graduate program. In its operation thus far, students from over 65 majors have served as mentors. The 15-week course begins with 20 h of mentor training over 3 weeks. The training is conducted by faculty, juvenile probation officers, investigators from the DA's Office, the juvenile court magistrate, and other professionals. Training includes juvenile court observations, mentoring skill instruction, role plays, instruction in adolescent development, and an orientation to the systems from which youth are referred (e.g., juvenile justice, schools).

After the initial training, mentors are prepared to mentor their youth for the 12 week program. Youth mentees come to campus from 4 pm to 8 pm and spend time in structured activities with their mentor and Mentor Family. During this time, mentors and mentees (a) take a designated walk on campus to re-connect and learn about campus and various majors and professions, (b) engage in personalized tutoring and weekly grade and attendance checks, (c) have dinner together, and (d) engage in two prosocial activities, such as cooking, sports, or art. During the last week, a graduation celebration is held in honor of the time spent together. The families of mentees and the referring agencies are invited for dinner and a graduation ceremony.

During the entire semester, the course combines weekly mentoring sessions with recitation discussions, academic readings, and assignments that are both reflective and applied. Campus Corps is informed by the "4 Rs," (i.e., reality, reflection, reciprocity, and responsibility) of essential best practices in service learning (Godfrey et al. 2005), so that student mentors are experiencing the highest benefits possible. First, mentors are exposed to the relevant issues in their broader community. Because many of the mentees are facing difficult realities such as poverty, homelessness, dysfunctional family relationships, and mental health concerns, students are offered ample opportunities to struggle with a number of social issues. Throughout the development of the mentoring relationship, mentors are encouraged to think critically about what these realities mean for their mentees, themselves, and their community. Intentional conversations during pre- and post-mentoring small group discussions (i.e., labs which occur 1 h prior to their youths' arrival and 1 h after the youths' departure) are intended to heighten mentors' awareness of local politics and critical issues facing their community.

Second, reflection is integrated into weekly reflection journals, pre- and post- mentoring labs, and two integration papers. The pre- and post-mentoring labs are devoted to application of course materials to the mentors' practical experiences in mentoring youth, engaging in personal reflection about the experience, and strategizing ways to best mentor each youth given individual needs. Students are encouraged to both reflect on their performance as a mentor and on the meaning it has for their own development. Reflection prompts in the weekly journals and final papers are focused on increasing self-awareness, learning, and insight into one's own experiences. Through this reflection time, students think about how they are being affected by the service experience and their mentees, thus deepening their experience beyond simply participating in service. Reflection is a core component of service-learning (Conway et al. 2009) and serves as a tool for self-supervision. Reflection also is intended to enhance the mentor's sense of civic responsibility (Bringle and Hatcher 1995). Mentors are challenged to think about what their service means for their mentees and their community.

Third, through reciprocity, the Campus Corps program explicitly aims to provide a mutually beneficial experience for both service recipients and service providers. Mentors are empowered to maintain positive relationships with their

mentees' families and referral agencies (e.g., probation). Campus Corps staff and mentors seek to collaborate with and learn from the expertise of the mentee, their family and the referral agency, rather than applying a unilateral transaction between service provider and service recipient (Godfrey et al. 2005). Simultaneous to the development of Campus Corps, Liang et al. (2013) also have recommended the integration of strength-based approaches to mentoring in which adults engage in more effective partnerships with youth that result in outcomes such as mutual learning, collaborative decision making, and effective activism or social change (Jones and Perkins 2005).

Finally, responsibility, as described by Godfrey and colleagues (2005), is encouraged throughout the program. As described above, civic responsibility is enhanced through intentional reflection time, as well as purposeful discussions about remaining involved in the community. Given the mentors' training and experience, we hope they will use their skills to strengthen their community. We discuss with mentors ways in which they can stay involved with Campus Corps or other community agencies in order to take on influential leadership roles. One way in which mentors fulfill their community responsibility is by continuing their involvement in Campus Corps. About 20 % of students return to Campus Corps for additional semesters to serve as Mentor Coaches (i.e., experienced supervisory mentors), interns, or research assistants.

Beyond the "4 Rs" (Godfrey et al. 2005) of service-learning, Campus Corps is also informed by theories of effective youth mentoring. Most successful relationships can be characterized as one that contains mutuality, empathy, and trust (Rhodes 2002, 2005). The quality of the mentoring relationship is largely influenced by the program structure and available support and supervision. Sufficient structure is provided through the daily schedule of pre- and post-mentoring labs and on-campus activities. Additional structure is provided by requiring regular attendance at mentoring sessions, and preparing mentors and mentees for the end of their relationship. This structure allows the mentor to focus more on developing a relationship with his or her mentee, rather than being burdened by scheduling and planning activities or feeling unsupported by the agency, a known barrier to successful relationships (Spencer 2007).

Second, mentors are provided extensive mentor training and in-the-moment support and supervision. The training ensures that mentors are knowledgeable in the practices and procedures of mentoring at Campus Corps and understand the expectations for mentors. Supervision and implementation fidelity checks are conducted to ensure that training is being put into practice. Supervision is provided by Campus Corps Mentor Coaches and instructors. Instructors are student in the Marriage and Family Therapy graduate program. Instructors are particularly important because many Campus Corps youth confront crisis situations, including mental health issues, family problems, and bullying at school. Family therapists provide expertise in systemic thinking and clinical interventions (e.g., suicide assessment, group cohesion, conflict resolution). These instructors train mentors on how to intervene effectively, provide in-the-moment support for mentors to continue to develop their skills, and oversee the safety and progress of mentors and mentees participating in Campus Corps. This type of supervision can promote high feelings of self-efficacy in the mentor's ability to maintain a successful relationship; an integral component to maintaining high-quality mentorship (Karcher et al. 2005).

Finally, consistent with the principles of positive youth development, community psychology, and youth–adult partnerships (e.g., Camino 2000; Zeldin et al. 2013), mentor–mentee pairs are organized into Mentor Families that provide additional social support and supervision to participants. Each Mentor Family is supervised by a Mentor Coach. Mentor Families include youth of similar ages to facilitate formation of prosocial peer relationships and practice social skills while maintaining at least a one-to-one ratio of adults to youth. Mentors provide peer supervision for one another, offering support in situations such as redirecting behavior. Mentor Families also provide a place of belonging for both mentors and mentees, and provides opportunities for mentees to develop additional relationships. For example, Deutsch et al. (2013) conducted a mixed-method evaluation of a similar mentoring component in which mentoring was facilitated within a structured group format for females, and found moderate-to-high satisfaction with the experience and high levels of social processes (e.g., sharing, trust building) that appear to be related to connectedness.

The Current Study

The purpose of the current study is to evaluate the effect of mentoring at-risk youth on college student mentors within a service-learning course, specifically related to the development of civic-mindedness. The current study aims to assess civic-related outcomes consistent with the extant empirical and theoretical literature on service-learning and mentoring described above. Consistent with the goals of the Campus Corps program and the concept of utilizing service-learning and community engagement activities to facilitate the growth a civic-minded graduate (e.g., Bringle and Steinberg 2010), we hypothesize greater benefits for college students who participate as a mentor in the Campus Corps program compared to college students who do not participate. Specifically, we anticipate post-intervention differences on outcomes of community service self-efficacy and self-esteem, civic action, civic attitudes, interpersonal and

problem solving skills, political awareness, leadership, diversity attitudes, and social justice attitudes.

Method

Participants

Participants included 648 individuals in both intervention and comparison groups. The intervention group consisted of 390 individuals who all participated in the Campus Corps program between the Fall 2010 and Spring 2012 semesters. Ages of participants ranged from 17 to 50 ($M = 21$, $SD = 2.98$, mode = 21, median = 20). Most of the participants were female (86.2 %), with a large number reporting previous volunteer experience (79 %). The majority of participants were Caucasian (82.5 %), followed by Hispanic/Latino (10.8 %), American Indian or Alaska Native (2.6 %), African American (2.2 %) and Asian (1.9 %). Within the intervention group, 51.6 % reported being brought up in a middle income household, 30.1 % in a middle-high income household, 7.5 % in a middle-low income household, 6.5 % in a high income household and 4.3 % in a low income household. Of the participants, 43 % were seniors, 31.4 % were juniors, 18.8 % were sophomores, 6.2 % were freshman, and 0.5 % were graduate students. There were also various academic majors, including: 30.4 % in HDFS, 26.7 % in Psychology, 11.4 % in Health and Exercise Science, 5.3 % in Spanish, and less than 5.0 % in other majors (e.g., Social Work, Education, Sociology, Criminal Justice, Art, International Studies).

The comparison group consisted of 258 individuals who did not participate in the Campus Corps program. Similar to the intervention group, 76 % reported having volunteered prior to the semester in which they completed the survey. Ages of respondents ranged from 17 to 57 ($M = 21.5$, $SD = 4.26$, mode = 20, median = 21). Similarly, most of the participants were female (88.8 %). The majority of participants were Caucasian (78.5 %), followed by Hispanic/Latino (12.8 %), American Indian or Alaska Native (3.6 %), African American (3.6 %) and Asian (1.5 %). Within the comparison group 44.3 % reported being brought up in a middle income household, 21.4 % in a middle-high income household, 20.0 % in a middle-low income household, 5.7 % in a high income household and 8.6 % in a low income household. Of the participants, 27 % were seniors, 38 % were juniors, 17.1 % were sophomores, 7.8 % were freshman, and 2.7 % were graduate students. Again respondents reported different majors, including: 26.3 % in HDFS, 29.9 % in Psychology, 35.9 % in Health and Exercise Science, and less than 5.0 % in other majors (e.g., Spanish, Social Work, Education, Family and Consumer Sciences, Sociology, Criminal Justice, Art, International Studies). Group equivalency tests on demographic variables indicated no differences between intervention and comparison group participants on gender, ethnicity, major, or level of prior volunteer service. However, significant differences were found on age (t (646) = 2.21, $p < .05$).

Procedure

A quasi-experimental research design was utilized to assess the relationship between Campus Corps participation and outcomes of interest. Upon receiving Institutional Review Board approval, participants for the study were recruited through email at the beginning of the Fall 2010, Spring 2011, Fall 2011, and Spring 2012 semesters at Colorado State University in Fort Collins, CO. Intervention group participants were recruited after successful enrollment in the Campus Corps course and comparison group participants were recruited via email based on year in school and major. Specifically, due to the large portion of upper classmen from Psychology and HDFS, most comparison participants were selected from these categories. Recruitment emails were also sent to students within other majors represented in Campus Corps. Informed consent was obtained from all participants of the study. Participants of both intervention and comparison groups completed their surveys in the online form via the website, surveymonkey.com. Intervention group participants completed surveys prior to the program and upon completion of the program. Comparison group participants completed their surveys at approximately the same time points.

Measures

The present study utilized several measures to gauge a range of civically-related outcomes of service-learning mentor experience. Measures elicited an understanding of mentors' civic attitudes, community service self-efficacy, self-esteem, interpersonal and problem solving skills, civic action, diversity attitudes, social justice attitudes, leadership and political awareness.

Demographic and Control Variables

Participants' age, gender, ethnicity, major, and prior involvement in volunteer service were obtained through self-report. Dummy codes were created for the categorical control variables, gender (female = 1, male = 0) and ethnicity with minority ethnicities valued at '1' and Caucasian valued at '0.' Participant major was also dummy coded, where individuals enrolled in either Psychology or HDFS majors were valued as '1' and all other majors as '0.' Lastly, involvement in volunteer service prior to the current

semester was dummy coded (1 = prior involvement, 0 = no prior involvement).

Civic Attitudes

Civic attitudes were assessed through the Civic Attitudes Scale (CAS; Mabry 1998). CAS assesses respondent's attitudes toward community service with higher scores indicating more positive attitudes. The measure includes five items on a 5-point Likert-scale with responses ranging from (1) *Strongly Agree* to (5) *Strongly Disagree*. A sample item is: "People should give some time for the good of their community or country." Cronbach's alpha for the current sample was 0.83.

Community Service Self-efficacy

The Community Service Self-Efficacy Scale (CSSES; Reeb et al. 2010; Reeb et al. 1998) was implemented to gauge the individual's confidence in his or her ability to make significant contributions to the community through service. This measurement was achieved through a 10-item scale assessing the student's self-efficacy for community service with higher scores indicating more self-efficacy. Item responses ranged from (1) *Quite Uncertain* to (10) *Certain*. One example question that appeared on the survey included "I am confident that I can help individuals in need by participating in community service activities." Cronbach's alpha for the current sample was 0.95.

Self-esteem

Self-esteem was evaluated with Rosenberg's Self-esteem Scale (1989). The scale includes 10 items with responses following a 4-point Likert scale from (1) *Strongly Disagree* to (4) *Strongly Agree*. Sample questions include "I take a positive attitude toward myself" and "I feel that I have a number of good qualities." Higher scores indicate higher self-esteem. Cronbach's alpha for the current sample was 0.76.

Interpersonal and Problem Solving Skills, Civic Action, and Political Awareness

The Civic Attitudes and Skills Questionnaire (CASQ; Moely et al. 2002) assesses civic attitudes and skills through 45 items and six subscales: (1) civic action, (2) interpersonal and problem solving skills, (3) political awareness, (4) leadership skills, (5) social justice attitudes, and (6) diversity attitudes. Questions are addressed using a 5-point Likert-scale, and include responses from (1) *Strongly Disagree* to (5) *Strongly Agree*. A sample item includes: "I am committed to making a positive difference." For the purpose of the current study, the civic action (plans for future involvement in the community; $\alpha = 0.86$), interpersonal and problem solving skills (ability to communicate and work effectively with others; $\alpha = 0.86$), and political awareness (knowledge of current local and national issues and politics; $\alpha = 0.87$) were used. Leadership skills, social justice attitudes, and diversity attitudes were excluded from hypothesis testing due to low reliability in the current sample ($\alpha < .50$). For each subscale, a higher score is more desirable.

Data Analytic Plan

Prior to data collection, an a priori power analysis was conducted to determine the necessary sample size. In order to detect a small effect size with a power of .80, 408 participants were needed (Soper 2011); thus our sample size is sufficient. The data analytic plan proceeded in three stages. First, t-tests for each variable of interest were conducted to determine if there were significant pre-intervention differences between the intervention and comparison groups. Second, correlation coefficients were calculated to determine the relationships between study variables. Third, a series of linear regression models were estimated to determine if there were significant post-intervention differences between the intervention and comparison condition for the variables of interest, after adjusting for key background factors and pre-intervention levels of all variables. The intervention indicator was dummy coded where intervention participation is equal to '1' and comparison is equal to '0.' Age, gender, minority status, major, prior volunteer service, and pre-intervention levels of all key variables were controlled for in each analysis.

Results

Table 1 presents the pre-intervention values of all variables of interest by condition. Two of the key outcome variables, CAS and the Civic Action subscale of the CASQ differed significantly at baseline; thus each of these variables were controlled for in hypothesis testing models. Due to sufficient power, all outcome variables of interest were controlled for in hypothesis testing to further account for potential group differences at baseline and relationships between variables. Table 2 presents the correlation matrix for the intervention indicator, background variables and all covariates at pre- and post-intervention.

Table 3 presents the post-intervention adjusted means for all variables (adjusted for age, gender, minority status, major, prior volunteer service, and pre-intervention levels of all outcome variables) by condition calculated from the linear regression models. Table 3 also includes a measure

Table 1 Pre-intervention unadjusted means for all variables of interest by condition

Variable	Intervention		Comparison		95 % CI	*t* value
	M	*SE*	*M*	*SE*	Mean difference	
CAS	4.54	.02	4.44	.04	[−.18, −.02]	−2.35*
CSSES	8.37	.07	8.30	.11	[−.32, .16]	−.63
RSES	2.80	.03	2.83	.03	[−.05, .11]	−.82
IPSS	4.45	.02	4.40	.03	[−.12, .02]	−1.42
CivAct	4.47	.03	4.37	.04	[−.19, −.01]	−2.04*
PolAw	3.36	.04	3.41	.05	[−.07, .17]	.81

CAS civic attitudes scale, *CSSES* community service self-efficacy scale, *RSES* Rosenberg's self-esteem scale, *IPSS* interpersonal problem solving skills CASQ subscale, *CivAct* civic action CASQ subscale, *PolAw* political awareness CASQ subscale

* $p < .05$

of effect size. Significant intervention effects were observed for all post-intervention variables, indicating that participants in the intervention condition had significantly higher scores at post-intervention than participants in the comparison condition (adjusting for background covariates, initial group differences, and pre-intervention levels of all outcome variables).

Specifically, results from the calculated adjusted mean scores indicate that intervention participants had significantly higher civic attitudes compared to the comparison group post-intervention, adjusting for baseline differences in which the comparison group reported significantly lower initial civic attitudes than treatment participants. Second, post-intervention differences on community service self-efficacy were observed between groups. Initially, participants did not significantly differ, but after participation in Campus Corps, intervention group participants reported higher community service self-efficacy scores than comparison group participants. Third, significantly higher self-esteem scores were observed for intervention group participants as compared to participants who did not participate in Campus Corps at post-test, controlling for slight, but not statistically significant, differences at pretest. Fourth, significant post-intervention differences were observed between groups on self-reported scores of interpersonal and problem solving skills. No pretest differences were observed between groups, but intervention group participants reported statistically higher scores at posttest. Fifth, participants differed significantly at posttest on a measure of civic action, after controlling for significant differences at pretest. Finally, intervention group participants reported significantly higher political awareness than comparison group participants, after adjusting for slight, but not statistically significant, differences between groups at pretest.

Discussion

The present study is the first known study to quantitatively examine the outcomes experienced by university students as a result of participating in a service-learning course in which they serve as mentors to at-risk youth. Findings are consistent with those of prior research which examined outcomes of service-learning courses in which mentoring was not the focus (e.g., Deeley 2010; Eyler and Giles 1999, 1994; Lisman 1998; Reeb et al. 1998, 2010). Our findings and the other benefits noted in the service-learning literature (e.g., academic achievement, greater diversity awareness) underscore the pedagogical value of service learning for the development of students across academic, socio-emotional, and identity domains. Similarly, our quantitative results extend the findings of the few qualitative studies that examined outcomes for mentors specific to mentoring (e.g., Banks 2010; Harwood and Radoff 2009; Hughes et al. 2009; Schmidt et al. 2004) and results of youth–adult partnerships (e.g., Davidson et al. 2010).

The results of this study indicate that participation in Campus Corps was associated with significantly higher scores on mentors' civic attitudes, community service self-efficacy, self-esteem, interpersonal and problem solving skills, civic action, and political awareness, as compared to participants in the comparison group. Through participation in Campus Corps, students reported motivation and empowerment to become civically-engaged citizens. More specifically, students reported the belief that it is every person's responsibility to use their time and talents to help solve social problems. Moreover, students reported personal commitments to remain civically engaged in their community in the future. This sense of civic responsibility is an important outcome of service learning (Bringle and Hatcher 1995; Godfrey et al. 2005).

Compared to students who did not participate in the service learning course or engage in a mentoring relationship, Campus Corps students reported a greater awareness of current politics. This difference may be a result of engaging in a meaningful relationship with mentees (Philip and Hendry 2000), mentees' families, Campus Corps staff, and community agencies (Godfrey et al. 2005). Through this type of reciprocity and respect for service recipients, students may gain a better understanding of issues facing their local community and may be better suited to assume influential and effective community roles (Bringle and Steinberg 2010; Godfrey et al.).

Similarly, Campus Corps students reported confidence that they would find situations in which their effort and skills could be applied to produce tangible benefits to their community. Students in Campus Corps also reported higher self-esteem. As noted by Reeb et al. (2010), greater self-esteem may be a result of contributing successfully to one's community, which is viewed favorably in US society.

Table 2 Correlation coefficients for key variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Intervention	1.00																	
2. Age	−.09*	1.00																
3. Gender	−.04	−.04	1.00															
4. Minority	.06	.01	−.14**	1.00														
5. Major	.21**	−.06	.01	−.01	1.00													
6. Vol	.03	−.01	.08*	.07	.01	1.00												
7. CAS	.09*	−.01	−.01	.03	.10**	.07	1.00											
8. pCAS	.36*	−.02	.05	−.01	.11**	.05	.49**	1.00										
9. CSSES	.03	−.02	.05	−.04	.11**	.11**	.40**	.27**	1.00									
10. pCSSES	.20**	.02	.01	−.04	.09*	.02	.27**	.33**	.33**	1.00								
11. RSES	−.03	.11*	.02	−.04	−.07	.06	−.02	.08	.08	.07	1.00							
12. pRSES	.10*	.10*	−.01	−.06	−.06	.04	.03	.14**	−.01	.12*	.78**	1.00						
13. IPSS	.06	.05	.03	.01	.06	−.03	.34**	.23**	.41**	.26**	.15**	.09*	1.00					
14. pIPSS	.15**	.01	.01	.01	.11**	−.02	.25**	.40**	.23**	.36**	.03	.10*	.41**	1.00				
15. CivAct	.08*	−.04	.11**	−.03	.12**	.13**	.50**	.39**	.51**	.30**	.07	.07	.23**	.23**	1.00			
16. pCivAct	.21**	−.05	.01*	−.08*	.09*	.13**	.45**	.55**	.38**	.42**	.04	.09*	.33**	.32**	.59**	1.00		
17. PolAw	−.03	−.10*	−.08*	.01	.10**	−.01	.29**	.16**	.32**	.23**	.08	.04	.21**	.23**	.33**	.33**	1.00	
18. pPolAw	.06	−.03	−.03	.01	.11**	−.01	.26**	.28**	.24**	.29**	.05	.07	.64*	.44**	.23**	.23**	.64**	1.00

Vol volunteer service, *p* post-intervention, *CAS* civic attitudes scale, *CSSES* community service self-efficacy scale, *RSES* rosenberg's self-esteem scale, *IPSS* interpersonal problem solving skills CASQ subscale, *CivAct* civic action CASQ subscale, *PolAw* political awareness CASQ subscale

* $p < .05$

** $p < .01$

Table 3 Post-intervention adjusted means for all variables by condition

Variable	Intervention		Comparison		95 % CI	Effect size
	M	*SE*	*M*	*SE*	Mean difference	Cohen's *d*
pCAS	4.58	.08	4.10	.09	[−.58, −.40]***	0.32
pCSSES	8.79	.20	8.27	.20	[−.74, −.30]***	0.14
pRSES	2.92	.05	2.85	.05	[−.12, −.01]*	0.09
pIPSS	4.55	.06	4.46	.06	[−.16, −.02]*	0.08
pCivAct	4.48	.07	4.35	.07	[−.21, −.05]**	0.04
pPolAw	3.61	.10	3.47	.10	[−.25, −.02]*	0.08

Age, gender, minority status, major, prior volunteer service, and pre-intervention levels of all key variables were controlled for in each analysis

p post-intervention, *CAS* civic attitudes scale, *CSSES* community service self-efficacy scale, *RSES* Rosenberg's self-esteem scale, *IPSS* interpersonal problem solving skills CASQ subscale, *CivAct* civic action CASQ subscale, *PolAw* political awareness CASQ subscale

*** $p < .001$

** $p < .01$

* $p < .05$

An enhanced sense of community service self-efficacy and self-esteem is also likely to reinforce their commitment and desire to continue these behaviors.

Finally, students in Campus Corps report greater interpersonal and problem solving skills, as compared to students who do not serve as a mentor in Campus Corps. These skills are related to the potential to be more effective in civic engagements (Moely et al. 2002). Through reflection on one's skills as a mentor and direct feedback and supervision from Campus Corps Mentor Coaches and instructors, mentors may be more aware of their abilities to communicate and solve problems effectively. Furthermore, mentoring youth can result in adult mentors building a set of skills that allow them to be exceptional adults who can offer support to youth through the development of skills in communication and empowerment (Philip and Hendry 2000).

Mentoring Program Implications

Mentoring within the context of service-learning courses is rare, and yet holds great potential. By offering students the opportunity to mentor at-risk youth within a service-learning course, universities can contribute to the development of a civically-minded college students, as evidenced by the results of this study, while simultaneously supporting the development of at-risk youth in their communities (Masten and Reed 2002; Dubois et al. 2011) and overcoming the known barriers to community-based mentoring programs (e.g., insufficient number of mentors for youth, failed relationships due to lack of support). Sadly, a mentor who is unsupported in their program, unsupervised, and having difficulty with their mentee is likely to drop out early, leaving their mentee alone (Spencer 2007; Evans 2005). However, situating mentoring programs within service-learning courses can be an effective way to provide mentors to large numbers of youth. Because students receive course credit and ample training and supervision as part of their course, they have the incentive and support necessary to initiate and maintain an effective relationship with these at-risk youth, as exemplified by Campus Corps' recruitment and retention data. Each semester, about 125 students from 65 majors across campus are easily recruited to mentor 125 youth. Thus far, no student mentors have ended the relationship early.

Furthermore, the university students' efforts in mentoring these youth appear to benefit the community, although more explicit research on community impact is needed. Their service is likely to reduce the burden on community service agencies, which are often strained to meet the needs of large clienteles. If mentoring results in even one youth reducing continued delinquency, the financial savings are great; one study estimates that the cost of a single serious offender aggregates to $5.7 million (Cohen and Piquero 2009). Lastly, because service-learning mentors desire to remain involved in their community, the community gains a committed and skilled citizen. Further evaluation of the cost-benefits and community impact is needed.

Limitations

The results of the current study should be considered in light of its limitations. The first limitation is the lack of random assignment to intervention and comparison conditions, which is often the only option in service-learning research. Due to this limitation, the internal validity is compromised and extraneous variables could account for some of the variance in each outcome. Nevertheless, accounting for the known confounding variables in our linear regression models allows for an informed interpretation of the effect of mentoring within service learning. Second, the sample was rather homogeneous (i.e., mostly Caucasian females) and results should not be generalized to other populations without replication. Third, self-report measures were utilized, as opposed to student products or independently observed behaviors. Although self-report measures are helpful when assessing constructs related to personal beliefs or attitudes, future work would be strengthened by triangulating the results with independent observations or student products.

Future Directions

The current study represents an important preliminary step in understanding the effect of mentoring within a service-learning course on college student mentors. We recommend

that future research in this area consult available conceptual models that have been developed (Reeb and Folger 2013; Stoecker et al. 2010; Van de Ven 2007). Additionally, next steps include replication of similar studies in diverse populations and further investigation into the variability of changes across students (i.e., Did all students change at the same rate?). Indeed, less is known about the conditions by which mentoring affects the mentor. Research aimed at understanding the processes involved in affecting change in mentors (e.g., "4 Rs;" Godfrey et al. 2005), as well as research on potential moderating variables (e.g., mentee's/mentors' age, gender, ethnicity, and other background variables), is greatly needed. We intend to evaluate mediating mechanisms, as well. For example, Reeb et al. (2010) propose that community service self-efficacy may influence self-esteem. Given our findings, it would be worthwhile to examine the mediating effect of community service self-efficacy on participation in Campus Corps and self-esteem. Mentoring programs with similar structure and mechanisms should consider evaluating processes, as well as outcomes. Due to the reciprocal nature of mentoring relationships, another interesting research area may include examining the role of mentoring relationship quality in the mentor's experience. Similarly, mentee benefits may vary as a result of the mentor experience and this relationship should be explored.

Conclusion

This study provides further evidence of the value of service learning for students, and reinforces the increasing priority given by many universities to service learning. In particular, service-learning courses that involve mentoring at-risk youth are an excellent fit for the university student population. In this study, students of all majors, experienced meaningful benefits that reportedly impacted their level of civic engagement, civically-minded attitudes, and self-esteem. Campus Corps, along with other programs, serves as a model for how other universities can offer similar courses for the benefit of students, youth, and potentially the community. The service-learning format allows for ideal levels of structure, supervision, and support such that high-quality mentoring is provided. To learn more about Campus Corps, visit the website at http://www.hdfs.cahs.colostate.edu/campuscorps.

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