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Exploring the Impact of an Outdoor Orientation Program on the Psychosocial Factors of Honors Students

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Abstract

Background. Despite the quality of students typically accepted into honors programs, completion rates are relatively low, ranging from less than 20% to a high of 48% (Campbell & Fuqua, 2008; Cognard-Black, Smith, & Dove, 2017). **Purpose.** This research aims to integrate a high-impact Outdoor Orientation Program (OOP) into the honors curriculum to determine its impact on individual outcomes linked to student success and retention, such as self-efficacy and self-esteem, emotional intelligence, grit, and life satisfaction. **Methodology/Approach.** 28 first-year honors students participated in a 4-day mountain climb OOP. Participants completed psychosocial measures before the OOP and at the end of the semester. The remaining first-year honors students served as the control. **Findings/Conclusions.** Overall, results revealed that students who participated in the OOP showed more significant improvements on nearly all outcomes of interest over the semester than those who did not. **Implications.** This study supports the use of OOPs in a university setting, and these benefits may extend beyond the honors program.

Keywords: outdoor orientation program, retention, honors

1. Introduction

The transition to college can be challenging, and not every student adapts easily to the new social, academic, and personal responsibilities (Pascarella &Terenzini, 2005). To assist with this transition, most universities have implemented first-year orientation programs to reduce stress, familiarize students with university culture, and connect students to the institution's social and academic fabrics (Perrine & Spain, 2008). While the timing, content, length, and delivery of these orientation programs vary significantly by institution, the ultimate goal is to help students successfully adjust to college life (Bell, Gass, Nafziger, & Starbuck, 2014). These programs are a worthwhile investment because a student's initial experiences, both during orientation and in the first year of college, can profoundly impact future retention and graduation (Levtiz& Noel, 1989).

One type of orientation program that has grown in popularity in the last decade is the Outdoor Orientation Progam (OOP), which places a small group of participants in an unfamiliar outdoor environment for several days. While these programs are helpful for both the transition and adjustment to college (Hill, Posey, Gomez, & Shapiro, 2018), they also positively influence noncognitive, psychosocial variables that contribute tostudent success,retention, and graduation (Robbins, Allen Casillas,Peterson, & Le, H. (2006). To date, little research has focused on the impact of OOPs on university honors students. Although these students tend to be high achievers, honors completion rates remain relatively low nationally (Campbell & Fuqua, 2008). Initial research has shown a positive impact on persistence and completion (Gonsalves, 2017),but no research to date has explored the impact of OOPs on the noncognitive variables of honors students. This research seeks to fill that void by examining the impact of an OOP on individualoutcomes linked to student success and retention, such as emotional intelligence, self-efficacy, and grit.

2. Literature review

Improving retention and graduation rates for students accepted into honors programs is a common goal for directors and deans (Gonzales, 2017). Despite the quality of accepted students, completion rates for honors programs are relatively low nationally, ranging from 20% to 48% (Campbell & Fuqua, 2008; Cognard-Black, Smith, & Dove, 2017).

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Furthermore, research has shown that investing in honors programs can lead to university-wide positive outcomes. A strategic focus on high-achieving students has the likelihood of increasing reputation, retention, and scholarship for the entire university (Cobane, 2011).

The first year at a university is the most crucial time for students to adapt (Astin 1993; Tinto, 1987, 1999; Pascarella and Terenzini 2005). Social connections are essential for a successful transition to a university setting and retention while in that setting. Woosley (2003) found that even the first few weeks on campus influence degree completion, and the most impactful initial engagements involved social activities and social adjustment. In fact, Pascarella and Terenzini (2005) indicated that meaningful social interaction has the most significant influence on retention and graduation from college. Unfortunately, as Tinto (1999) noted, most first-year students do not get actively involved in the social fabric of the university, and instead, "experience education as isolated learners" (p. 6). Results have consistently shown that social integration is as important as academic factors for student retention *(*Gerdes & Mallinckrodt, 1994; *Tinto, 1987*). Therefore, any program aimed at increasing retention and graduation needs to happen early and should engage students in shared learning experiences that emphasize social bonds and social integration. (Tinto, 1999).

One practice aimed at developing this shared learning experience that has grown increasingly popular in academic settings is the outdoor orientation program (OOP), which is defined by the following three qualities: 1) The experience takes place in a challenging and vigorous wilderness environment, 2) includes a group of 15 or fewer students, and 3) involves camping for at least one night in the outdoors (Bell & Chang, 2017). Bell, Glass, Naziger, and Starbuck (2014) reported that over 25,000 students start their college careers attending these programs, and a growing body of research has consistently shown positive outcomes associated with OOPs, personally interpersonally, and academically

Ribbe, Cyrus, and Langan (2016) found that students who participated in OOPs showed greater levels of overall adaptation, social adaptation, and attachment to their university as compared to non-OOP students.Furthermore, OOPs have been linked to positive outcomes, such as increased self-efficacy, self-esteem, and team effectiveness (Gills &Speelman, 2008), increased student learning and decreased interpersonal conflict in student teams (Elkin, 1991), increased perceptions of leadership ability (Judge, 2005), higher levels of emotional intelligence (Schwatz& Belknap, 2017), and improved leadership and teamwork competencies (Kourtesopoulou&Kreimadis, 2020).While most of the research in academic settings has focused on first-year students in the general college population, a recent study by Gonzales (2017) examined the impact of an OOP on honors students, and found an 11.7% gain in the completion rate for participants.

Psychosocial factors may significantly impact retention more than traditional cognitive, academic measures like the SAT, ACT, class rank, or high school GPA (Robbins, Lauver, Le, Davis, & Langley, 2004). Bell et al. (2014) reported that the most favorable OOP outcomes are the creation of trust, a sense of belongingness, and, "healthy peer connections that undermine status differences (Bell et al., 2014, p. 41). Little research has focused on the impact of OOPs on honors student success, and these have examined persistence and completion rates (Gonsalves, 2017). This research project includes a constellation of psychosocial measures linked to positive academic, personal, and professional outcomes to extend these findings. The advantage of using an honors college is that the first-year student cohort has many similarities in terms of their previous academic proficiencies and share similar college experiences and expectations during their first academic semesters. Thus, the honors participants are a sample matched on covariates, enhancing the ability to study an OOP's impact on participants.

The purpose of this study is to compare the psychosocial outcomes of honors students over the course of a semester who participated in a high-impact OOP to those that did not. This project will both build upon the existing literature by using a quasi-experimental to examine the impact of an OOP on relevant psychosocial success factors such as emotional intelligence, life satisfaction, and self-efficacy and evaluate the value-added benefits of integrating an OOP into the honors curriculum.

3. Methods

3.1. Sample. The OOP group included 33 students (16 women, 17 men) who enrolled themselves into one of two sections of first-year honors courses that required an experiential outdoor component. Every student was a first-year freshman ranging in age from 18-19 who was accepted into the honors program at our University. Both sections included an organized climb of Mount Washington during the second week of the semester and the integration of this mountain climb experience into the classroom setting. Lessons, reflections, and experiences from the 4-day outdoor experience and climb were threaded throughout classroom assignments, reflection papers, and individual and group projects.

The comparison group consisted of all first-year honors students that did not participate in the OOP.Sixty-three potential students were eligible to be in the non-OOP comparison group. Final inclusion in the sample required completion of all surveys at both measurement periods, and this resulted in a final OOP group of 28 (15 women, 13 men), and non-OOP group was 37 participants (24 women, 13 men). The non-OOP group served as a control group in a quasi-experimental design because random selection was not possible.All participants completed the measures during the first (Time 1) and final week of the semester (Time 2). No significant differences were found between the groups on any of the measures at Time 1 measurement.

3.2 Design and Procedures

3.2.1 OOP design and implementation

During the second week of the fall semester, participants traveled to New Hampshire to ascend Mount Washington. The first week of classwasdevoted to team building and the development of psychological safety. Time 1 measure of all independent variables wasalso assessedfor both the OOP and non-OOP groups. The OOP was a 4-day experience and included the following: 1) Day 1 was dedicated to travel and camp set-up upon arrival in New Hampshire. 2) Day 2 involved pre-trip planning, food shopping, and a short 1-mile hike to help orient the students to pacing, hydration, trekking poles, etc., 3) On Day 3 the students attempted the ascent of Mount Washington, and 4) Day 4 was the return trip to the campus. The 33students in the OOP sections were divided into four teams (8, 7, 8, and 9), and each team had two guides from Quest, an outdoor adventure and recreation program at the university that serves both students and the general public. The two faculty membersplanned to float amongst the four teams (if possible) to observe group performance. Students were responsible for a majority of the aspects of the trip, including preparation (prepare meals, clean the campsite, organize their equipment, and decide what and how much to bring on the ascent), and the mountain climb experience (departure time, routes, how to organize themselves, what pace to set, and how to handle interpersonal interactions). Quest guides and faculty inserted themselves into the experience when they believe a situation was somehow unsafe for any of the participants.The Quest team and faculty answered questions if asked, but intervened only when necessary for safety. The only stipulation imposed on theteamswas a 2pm turnaround time to ensure adequate daylight for the descent. Of the four teams, two reached the summit, a third turned around at 2pm, approximately a quarter-mile from the summit, and the final group had an injured student (knee). They chose to stay together and turned back approximately 1 ½ miles from the summit.

The OOP experience was integrated into the classroom throughout the remainder of the semester. Kolb's (1984) experiential learning theory served as the model for integrating experienced-based learning into the honors coursework. In Kolb's model, knowledge is created through the transformation of experience via a four-phase process: experiencing, reflecting, thinking, and acting (Kolb & Kolb, 2005).Students reflected on the OOP experience duringclassroom meetings, and aspects of the OOP were integrated into the course throughout the remaining weeks of the semester. The honors classes, Leadership Skills and Community Development, respectively, involved learning goals and content that aligned well with the OOP experience.

3.3 Measures

Unless otherwise noted, all measures were on a 5-point Likert scale (from 1– strongly disagree, to 5 – strongly agree). All measures demonstrated adequate internal consistency (.7 or greater).*Self-esteem* was measured with the Rosenberg Self-Esteem scale (Rosenberg, 1965), a 10-item Likert-scale that has demonstrated excellent reliability and validity (Robinson & Shaver, 1973). Self-esteem has been linked to a variety of important outcomes, and most importantly, low levels of self-esteem are associated with delinquency (Barry, Grafemen, Adler, Pickard, 2007) and both depression and anxiety (Sowislo& Orth, 2013).

Self-efficacy was measured with the 8-item New General Self-efficacy Scale (NGSE; Chen, Gully, & Eden, 2001). The NGSE is a trait measure of self-efficacy that assesses, "differences among individuals in their tendency to view themselves as capable of meeting task demands in a broad array of contexts" (p. 63).Generalized self-efficacy has been shown to be a good predictor of academic success (Becker & Gable, 2009), and plays a key role in job satisfaction and job performance (Judge and Bono, 2001).

Life satisfaction was measured with the 5-item Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). It reflects a general satisfaction with one's life and includes items such as, "*In most ways, my life is close to ideal"*, and, "The conditions of my life are excellent." The scale has been shown to have high levels of internal consistency and reliability (Diener et al., 1985), and is linked to both academic and assessment center performance (Rode, Arthaud-Day, Mooney, Near, Baldwin, Bommer, & Rubin, 2005).

Institutional commitment and *social integration*are subsections of the College Persistence Questionnaire Test (Lindheimer, 2011). The scale was designed to measure student perceptions of the university environment and their intention to persist. Institutional commitment was assessed with four items (e.g., How confident are you that this is the right college or university for you?), and social integration is a 6-itemLikert scale (e.g., How much do you think you have in common with other students here?). The survey has been useful in predicting student retention (Lindheimer, 2011).

Grit was measured with the Short Grit Scale (Grit-S; Duckworth & Quinn, 2009), comprised of ten items that measure persistence and determination from a trait-based perspective. Grit is an important factor for academic student success (Duckworth, Peterson, Matthews, & Kelly, 2007). The Grit-S has two factors, consistency of interest and perseverance of effort, and we includedonly items from the perseverance factor since these were more related to the OOP experience. Items included, "I finish what I begin," "I am diligent, and, "I am a hard worker." The perseverance factor has been linked to retention, performance, and GPA (Duckworth & Quinn, 2009).

Emotional intelligence was measured with the 33-item emotional intelligence scale developed by Schutte, Malouff, Hall, Haggerty, Cooper, Golden, and Dornheim (1998). It is based on the original emotional intelligence definition of Mayer and Salovey (1990) composed of three components: 1) appraisal and expression of emotion, 2) emotional regulation, and 3) the effective use of emotions in problem solving. The scale has adequate reliability and validity and predicts the GPA of first-year university students (Schutte et al., 1998).

University Satisfaction was measured with a 4-item Likert scale used byRode et al., (2005)to assess overall satisfaction with the university. Items included, "I am was satisfied with my university choice,""I would recommend this university to others," "I am satisfied with university experience," and "My overall satisfaction with the university."

4. Data Analysis

The dependent variables of self-efficacy, self-esteem, social integration, emotional intelligence, life satisfaction, self-esteem, institutional commitment, and university satisfaction scores were submitted to a repeated measures ANOVA. OOP (participation or non-particpation) servedas the between-subjects variable; measures of individual difference variables, e.g., self-esteem and self-efficacy (14 weeks, pretest versus posttest) served as the within-subjects variables.Data screening assessed assumptions related to the intended tests. No violations of normality or homogeneity of variances were found. The samples were slightly unbalanced (OOP = 28; Non-OOP = 37), which can potentially affect the accurate interpretation of theresults.

Table 1 presents the section means and standard deviations for each dependent variable across pre- and post-tests. The ANOVA summaries are presented in Table 2. Differences that approachedsignificance(p<.10)arereportedduetothesmallersample sizes.

Table 1
Means and Standard Deviations of Dependent Variables at Time 1 and Time 2

	Pretest				**Posttest**			
	OOT[a]		**Honors[b]**		**OOT[a]**		**Honors[b]**	
	M	***SD***	***M***	***SD***	***M***	***SD***	***M***	***SD***
Self-Esteem	3.33	.38	3.18	.41	3.46	.45	3.23	.34
Self-Efficacy	4.09	.53	4.25	.57	4.41	.51	4.21	.63
Life Satisfaction	3.58	.72	3.83	.76	4.00	.75	3.90	.66
Social Sat	3.37	.90	3.55	.76	3.82	.97	3.54	.70
EI	3.74	.25	3.76	.44	3.90	.42	3.85	.50
InstCommit	3.04	.53	3.24	.43	3.26	.55	3.21	.48
Grit	3.85	.58	3.95	.66	4.02	.65	4.18	.64
UniversitySat	4.40	.70	4.49	.78	4.18	.87	4.21	.91

[a]N = 28; [b]N=37

Table 2

Summary of Two-Factor ANOVA by Dependent Variables

	Source	*SS*	*df*	*MS*	*F*	η^2
Self-esteem	Between-subjects					
	OOP	1.12	1	1.12	5.42*	0.08
	Error	13.05	63	.21		
	Within-subjects					
	Self-Esteem	.24	1	.24	2.33†	0.04
	Self-Esteem x OOP	.05	1	.05	.54	.01
	Error	6.37	63	.10		
Self-efficacy	Between-subjects					
	OOP	.010	1	.010	.02	.00
	Error	31.80	63	.51		
	Within-subjects					
	Self-efficacy	.63	1	.63	4.48*	.04
	Self-efficacy x OOP	1.07	1	1.07	5*	0.11
	Error	8.66	63	.14		
Life Satisfaction	Between-subjects					
	OMT	.18	1	.18	.23	.00
	Error	49.00	63	.78		
	Within-subjects					
	Life Satisfaction	1.82	1	1.82	6.93*	.10
	Life Sat x Course	1.03	1	1.03	3.91*	.06
	Error	16.52	63	.26		
Social Integration	Between-subjects					
	OOP	.07	1	.07	.07	.00
	Error	67.57	63	1.07		
	Within-subjects					
	Social Sat	1.54	1	1.54	5.24*	.08
	Social Sat x OMT	1.73	1	1.73	5.91*	.09
	Error	18.46	63	.29		

Table 2 Cont.

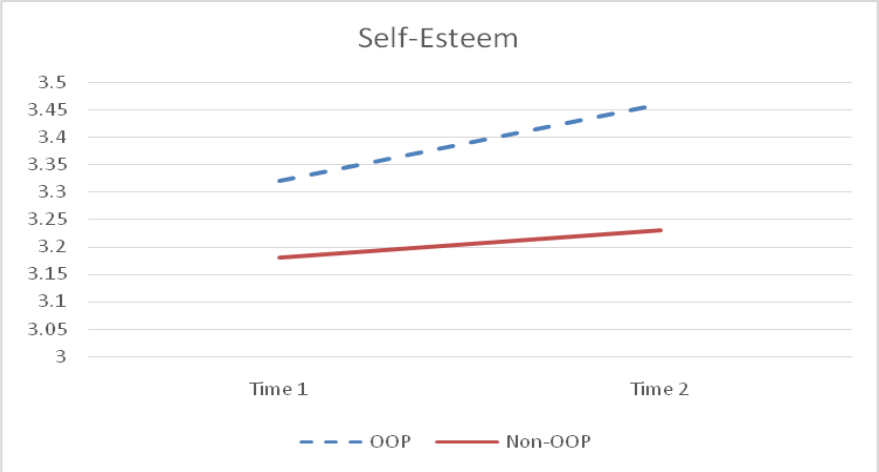
Source		*SS*	*df*	*MS*	*F*	η^2
Emotional intelligence	Between-subjects					
	OOP	.01	1	.01	.02	0.00
	Error	17.12	63	.27		
	Within-subjects					
	EI	.46	1	.46	5.45*	.08
	EI x OOP	.05	1	.05	.55	.09
	Error	5.30	63	.08		
Institutional Commit	Between-subjects					
	OOP	.21	1	.21	.57	0.01
	Error	22.97	63	.36		
	Within-subjects					
	Instit Commit	.32	1	.32	2.54†	0.04
	In Commit x OOP	.51	1	.51	4.11*	0.06
	Error	7.83	63	.12		
Grit	Between-subjects					
	OOP	.55	1	.55	.90(.35)	0.01
	Error	38.44	63	.61		
	Within-subjects					
	Grit	1.31	1	1.31	6.59*	.10

	Grit x OOP	.04	1	.04	.18(.67)	0.00
	Error	6.37	63	.10		
University Satisfaction	Between-subjects					
	OOP	.12	1	.12	.12(.783)	.00
	Error	62.55	63	.99		
	Within-subjects					
	Univ Sat	2.05	1	2.05	5.61*	.08
	Univ Sat x OOP	.03	1	.03	.08(.78)	0.00
	Error	22.99	63	.37		

*p < .05, † p < .10

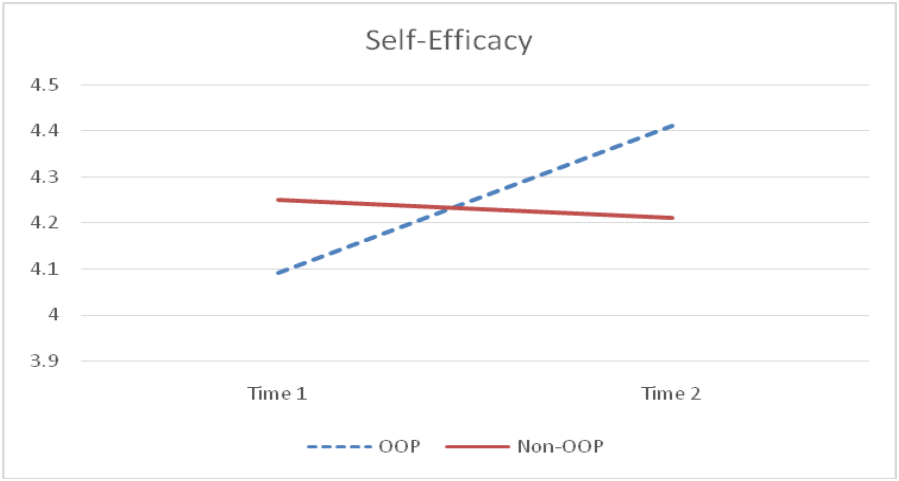
4.1 Self-Esteem. The results of the Two-Way Mixed ANOVA showed that there was a significant main effect of OOP ($F(1, 63) = 5.42$, $p < .05$, $\eta p2 = .08$). In addition, there was also a significant main effect of self-esteem ($F(1, 63) = 2.33$, $p < .15$, $\eta p2 < .04$). There was no significant interaction between OOP and Self-Esteem ($F(1, 63) = .54$, $p = .47$, $\eta p2 < .04$). An examination ofFigure 1 shows that both groups slightly improved, although the line for OOP was steeper, indicating the OOP group showed greater gains in self-esteem over the semester (from $M = 3.33$ to 3.46 as compared to $M = 3.18$ to 3.23)

Figure 1
Line Plot of Self-Esteem Mean Scores by Group



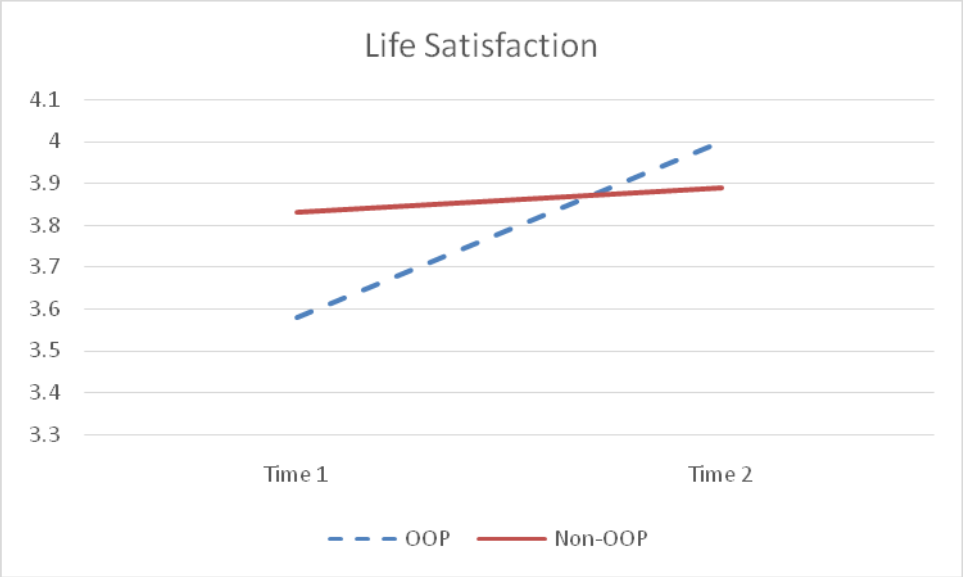
4.2 Self-Efficacy. Results showed no significant main effect of OOP ($F(1, 63) = .02$, $p = .89$, $\eta p2 < .00$). There was a significant main effect for Self-Efficacy ($F(1, 63) = .4.48$, $p < .05$, $\eta p2 = .04$), and a significant interaction between Self-Efficacy and OOP($F(1, 63) = 7.75$, $p < .05$, $\eta p2 = .11$). As can be seen from Figure 2, participants in the OOP section of the course showed improved self-efficacy scores over the course of the semester (4.08 to 4.41), while scores from the non-OOP section slightly decreased (4.25 to 4.21).

Figure 2
Line Plot of Self-Efficacy Mean Scores by Group



4.3 Life Satisfaction. There was nosignificant main effect of OOP ($F(1, 63) = .23$, $p = .64$, $\eta p2 < .00$). There was a significant main effect of Life Satisfaction ($F(1, 63) = 6.93$, $p < .05$, $\eta p2 = .10$), and a significant interaction between OOP and life satisfaction ($F(1, 63) = 3.91$, $p < .05$, $\eta p2 = .06$). While both groups showed increases in life satisfaction (3.58 to 4.0), the OOP group showed greater gains over the course of the semester (*M*= 3.58 to 3.94 as compared to *M* = 3.83 to 3.89)

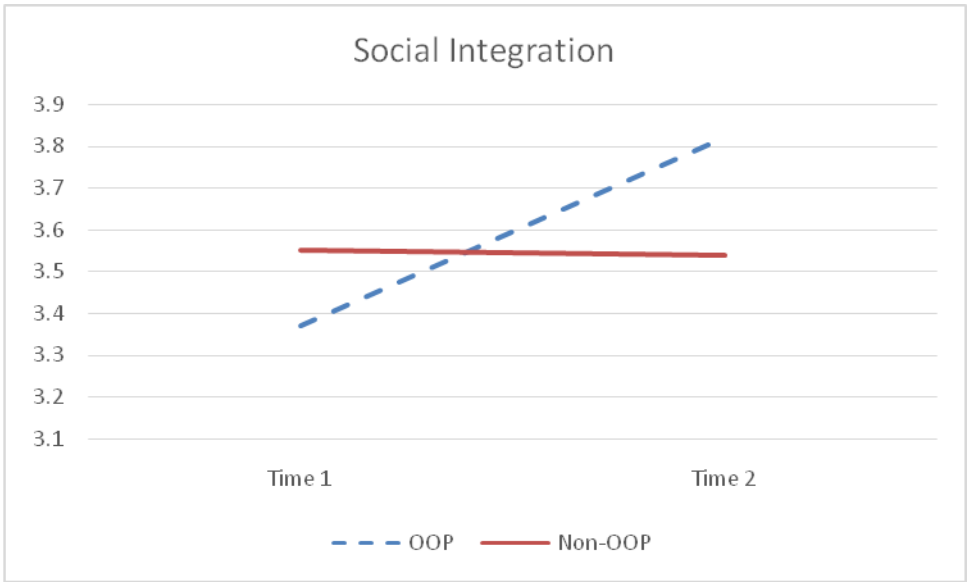
Figure 3
Line Plot of Life Satisfaction Mean Scores by Group



4.4 Social Integration. Results showed no significant difference in social satisfaction was found for the main effect of OOP ($F(1, 63) = .07$, $p = .80$, $\eta p2 < .00$). There was a significant main effect of Social Integration ($F(1, 63) = 5.24$, $p < .05$, $\eta p2 = .08$), and a significant interaction between OOP and social integration ($F(1, 63) = 3.91$, $p < .05$, $\eta p2 = .09$).

Over the course of the semester, participants in the OOP section of the course showed improved social satisfaction scores over the course of the semester (3.36 to 3.82), while scores from the non-OOP section slightly decreased over the semester (3.55to 3.4).

Figure 4
Line Plot of Social Integration Mean Scores by Group

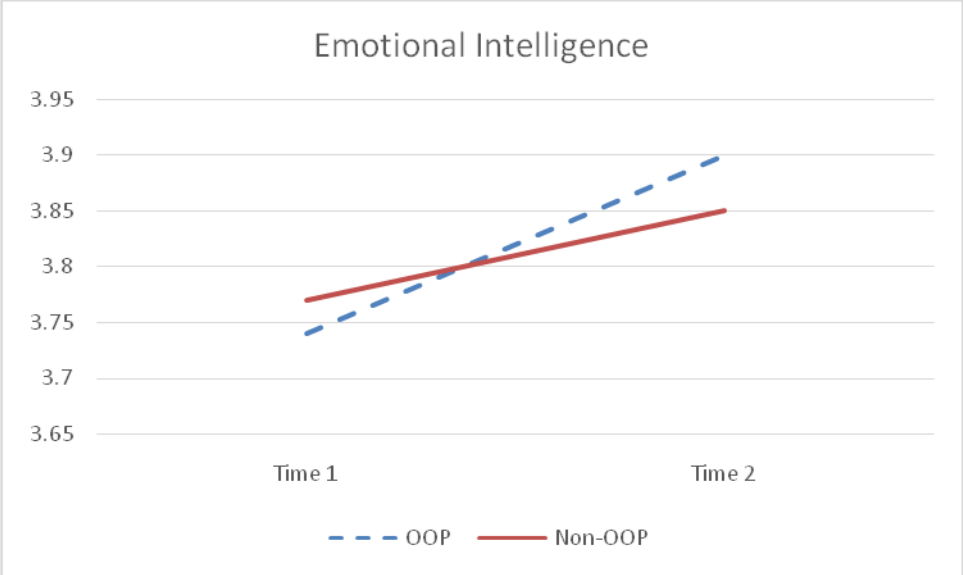


4.5 Emotional Intelligence. The results of the Two-Way Mixed ANOVA showed that there was not a significant main effect of OOP ($F(1, 63) = .02$, $p = .90$, $\eta p2 = .00$).

There was a significant main effect of emotional intelligence ($F(1, 63) = 5.45$ $p < .05$, $\eta p2 < .04$), but no significant interaction between OOP and emotional intelligence($F(1, 63) = .55$ $p = .46$, $\eta p2 = .01$). From looking at the figure, both groups showedan improvement, although the line for the OOPgroup was steeper,suggesting they made greater gains in emotional intelligence during the semester.

Figure 5

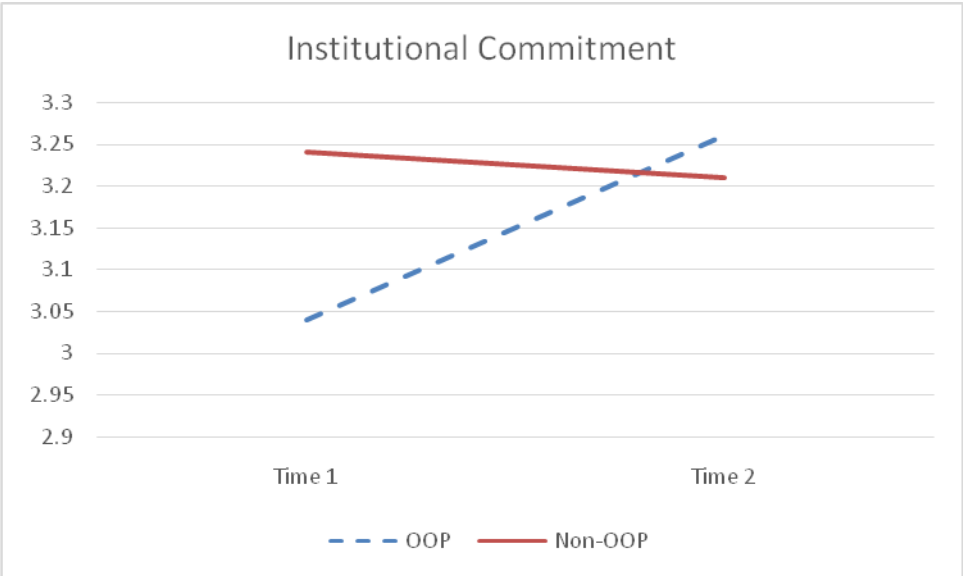
Line Plot of Emotional Intelligence Mean Scores by Group



4.6 Institutional Commitment. The results of the Two-Way Mixed ANOVA showed that there was not a significant main effect of OOP ($F(1, 63) = .57$, $p = .45$, $\eta p2 = .01$). There was a significant main effect of Social Satisfaction ($F(1, 63) = 2.54$, $p < .15$, $\eta p2 = .04$), and a significant interaction between OOP and social satisfaction ($F(1, 63) = 4.11$, $p < .05$, $\eta p2 = .06$). Over the course of the semester, OOP participants showed improved institutional commitment scores($M = 3.04$ to 3.26), while the non-OOPgroup slightly decreased over the semester ($M = 3.24$ to 3.22).

Figure 6

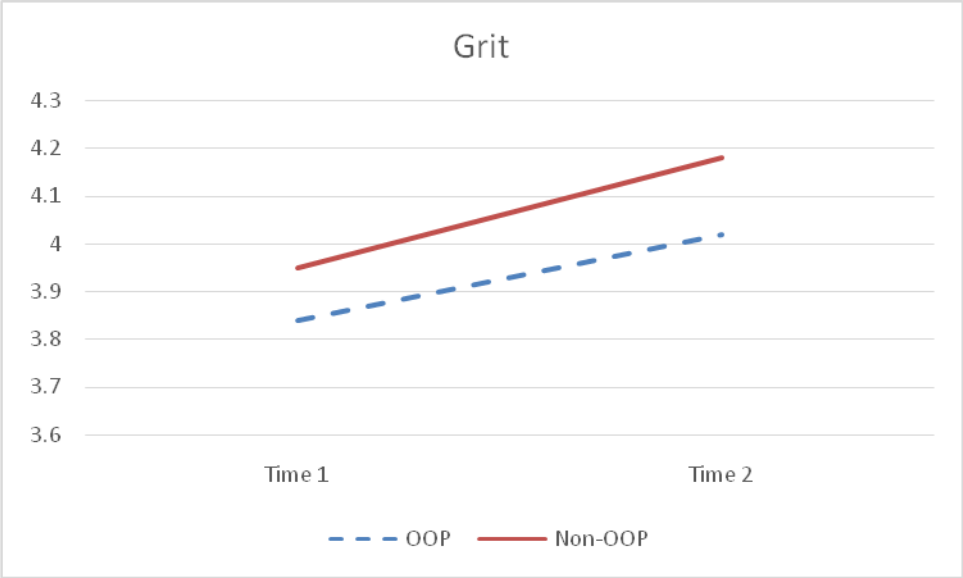
Line Plot of Institutional Commitment Mean Scores by Group



4.7 Grit. No significant difference in social satisfaction was found for the main effect of OOP ($F(1, 63) =$ ..90, $p = .35$, $\eta p2 < .01$). There was a significant main effect of Grit ($F(1, 63) = 6.59$, $p < .05$, $\eta p2 = .10$); both groups showed increases in their Grit scores. The interaction between OOP and Grit was not significant ($F(1, 63) = .18$, $p = .67$, $\eta p2 = .00$). As can be seen from Figure 7, the line for the non-OOP group was slightly steeper.

Figure 7

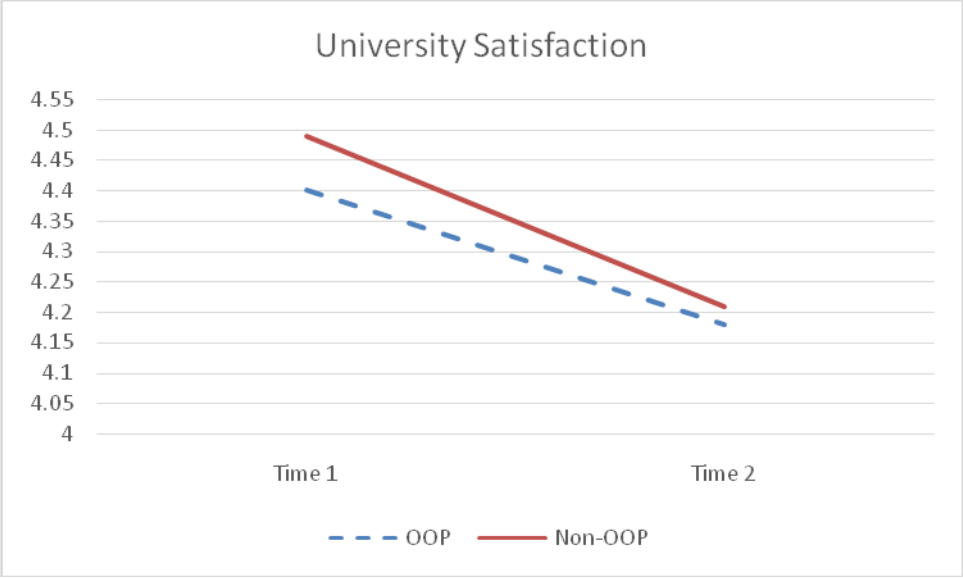
Line Plot of Grit Mean Scores by Group



4.8 University Satisfaction. No significant difference in university satisfaction was found for the main effect of OOP ($F(1, 63) = .12$, $p = .78$, $\eta p2 < .01$). There was a significant main effect of University Satisfaction($F(1, 63) = 5.61$, $p < .05$, $\eta p2 = .08$); Overall, participants were significantly less satisfied with the university at the end of the semester.The interaction between OOP and UniversitySatisfaction was not significant ($F(1, 63) = .08$, $p = .78$, $\eta p2 = .00$).

Figure 8

Line Plot of University Satisfaction Mean Scores by Group



5. Findings and Implications

The purpose of this research was to assess the impact of a mountain climb OOP on several noncognitive, psychosocial variables of first-year students in the honors program.Overall,students who participated in the OOP showed greater increasesover the semester on the outcomesof interest,including self-esteem, self-efficacy, emotional intelligence, grit, institutional commitment, social integration, and life satisfaction.We believe that this indicates clear, value-added benefits of including OOPas part of the first-year studenthonors experience.

Students who participated in the OOP showed significant increases in all but one (eight of nine) of the outcomes of interest, university satisfaction. As can be seen from the figures, the OOP participants showed steeper increases in measures than the non-OOP with one exception; grit.

It is worth noting that the non-OOP students did improve on four of the nine variables, including self-esteem, emotional intelligence, grit, and life satisfaction. However, the non-OOP honors students decreasedon four of the five measures over time (life satisfaction, institutional commitment, university satisfaction, and self-efficacy).

The most noteworthy findings of the study are the interactions between the outcome measures and the OOP groups. Students in the OOP group showed significant increases compared to the control group on social integration, life satisfaction, self-efficacy, and institutional commitment. These findings are both statistically and practically significant, as each significant interaction has a medium effect size. Thus, the OOP participants were more connected to their peers at the institution, more committed to the university, had stronger beliefs in their ability to achieve goals, and were generally more satisfied with their life as a whole. This would suggest that the designed programming of OOPs can positively impact the psychosocial development of students.

The results of university satisfaction may seem surprising given the other positive results from the current study. However, we believe they make sense in the context of what occurred at our University during the OOP and data collection semester. In the Fall of 2019, we had an unusually high number of student fatalities, and these tragic incidents clearly affected everyone at the University, particularly the student body. Viewed in this context, these results make more sense.

While the immediate benefits over the course of the semester are very positive and encouraging, we hope that these initial results are sustained and continue to benefit the students and the University in the future. Results from OOP research consistently show small, but positive effects on retention and graduation rates (e.g., Bell & Chang, 2017, Ribbe et al., 2016). Specific to the honors population, Gonsalves (2017) found that participation in a first-year OOP led to increases in honors program completion, and Gass and Priest (2006) noted that the benefits of the outdoor training were still present a year later.As noted by Bell and Chang (2017), "It is important to note that even small increases in retention, especially at small, tuition-drivencolleges, can have practical significance" (pg. 67).

The type of experience provided by the mountain climb provided an opportunity for students to develop important psychosocial qualities that can promote higher levels of personal and academic achievement. Challenges brought forth by the OOP experience create a context that allows instructors to help students identify negative psychological states that are often associated with poor emotional regulation, ineffective coping, isolation, and low self-esteem. This is especially important since an alarming number of students report high rates of academic-related stress and schoolwork anxiety before entering college (Pascoe, Hetrick, & Parker, 2019). Research suggests that positive psychological states that involve increased self-awareness, healthy emotional regulation, and adaptive coping are associated with higher levels of emotional intelligence and self-efficacy (Salami, 2011; Thomas, Cassady, & Heller, 2017). Furthermore, these positive psychological traits are predictors of academic success, social-emotional well-being, positive peer-relationships, and post-graduation job satisfaction and performance (Barrows, Dunn & Lloyd, 2013; Judge & Bono, 2001; Mavroveli, Petrides, Rieffe, & Bakker, 2010; Salami, 2011; Thomas, Cassady, & Heller, 2017).

The impact of positive psychological traitsis also important from a mental health standpoint, as they are linked to lower incidents of depression and anxiety and increased resilience among college students (Aradilla-Herrero, Tomas-Sabado,& Gomez-Benito, 2014; Arrindell, Meeuwesen, &Huyse, 1991; Houston et al., 2016; Schutz et al., 2013). Awareness of college students' mental health needs has increased as reports of mental health problems are increasing at historically high rates, particularly with regards to anxiety and depression (CCMH, 2019; Houston et al., 2017). For students, activities promoting positive emotions and strategies to navigate challenging situations could serve as mental health protective factors with lasting effects beyond the educational experience. Developing emotional intelligence, self-efficacy, and positive coping skills is likely to create graduates better equipped to navigate stress and experience higher levels of happiness and success in their careers and personal lives (Abele &Spurk, 2009; Achor, 2011; Carvalho, Guerrero &Chambel, 2018; Ruiz-Aranda, Extremera, & Pined-Galan, 2013). Clearly, these are meaningful for the participants and worthy of the University investment.

Furthermore, the focus on honors students may be surprising to some because the program tends to be comprised of elite students. As Cochrane (2011) noted, investing in an honors program can significantly enhance an institution's reputation, creating a "halo effect" that leads to positive transformation for the entire University population. Thus, a focus on the honors program may benefit the entire university. In addition, the positive results from the honors program will hopefully provide the opportunity to offer OOPS to the entire student population.

Our study also highlighted the need to include a control group when examining the benefits of various activities or programs in experiential education. While we do not believe that the absence of a control group would have led to an entirely different interpretation of the results, the results would not have been as impactful. While the OOP students showed increases in nearly every variable under study, these increases are viewed even more positively when compared to a control. Future research on outdoor training initiatives needs to incorporate similar designs to determine the added benefits of such approaches. Furthermore, one of the concerns with OOP research is the confounds created by selection bias. Since participants self-select into the OOP course option, their particular personal characteristics may drive their choice of the OOP, and in turn, their personal outcomes. However, we found no differences between the experimental and control groups at the start of the study, and therefore we are more confident that the outcomes can be attributed to the OOP experience.However, even with covariate matching, it is still possible that some unknown variables influenced our results and drove these group differences (Bell & Chang, 2017). The results must be interpreted in this light.

A final consideration is the type of OOP. We took students on a 4-day mountain climb, which was extensive use of time, resources, and money. While the results are very encouraging, it is important to determine if the same results can be achieved using less involved OOPs. Ribbeet al. (2017) found few meaningful differences between program types, wilderness, camp-based, and urban, sofuture studies need to address the psychosocial impact based on the OOP type.

6. Limitations

Our sample size was limited by the number of students we could take on the mountain climb. This resulted in less balanced and smaller sample sizes than desired. Additionally, we could not use random assignment to establish groups because students self-selected their course format and this choice could have influenced our results. Also, the time between measurements was approximately 14 weeks, and there is a chance that other personal and situational factors could confound the results.

The tragic circumstances of the deaths of our students at our University is a potential example of this. Lastly, the findings from this study should only be considered in the context of a single semesterin an honors program and should not be extrapolated beyond this setting.

Conflict of interest statement: The authors declare that there is no conflict of interest.
Data can be uploaded to a trusted digital repository upon request. This research was not preregistered with an independent, institutional registry.
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