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The Adolescent Social Group in Outdoor Adventure Education: Social Connections That Matter

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Abstract

Outdoor adventure education (OAE) experiences provide a unique context for adolescents to develop social connections with their peers. The social group atmosphere is a complex area to study due to the group's multiple components. This study examined key components of a social group model to understand the influences they have on the development of social connections. Using a group identification framework, this study investigated how 237 students from 22 different courses from the National Outdoor Leadership School (NOLS) connected with their groups. The results suggest that goal conflict with other students, social status, leadership consideration and gender ratio were significantly related to the affective and cognitive dimensions of group identification. Suggestions for administrators and instructors are discussed so that OAE experiences can be better tailored to meet the developmental needs of adolescents. The social group remains an important component to all OAE programs but needs further investigation to highlight the intricacies involved in developing social connections within group settings.

Keywords: *group identification, adolescence, social status, leadership, goal conflict, socioeconomic status*

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Outdoor adventure education (OAE) offers a distinct learning environment. One of the distinct components of OAE experiences is the social group experience. Most OAE programs take a small group of individuals (usually between 10 and 15) who do not know each other and provide opportunities for them to engage in activities that require support, teamwork, and communication over an extended period of time. This sudden transition into an unfamiliar social group can be very challenging, in particular for adolescents, who typically have not spent much time away from home or who have not been required to interact with others outside of their "friendship" network. Many research studies support the significance of the social group to the student experience and learning (Ewert & McAvoy, 2000; McKenzie, 2000; Mirkin & Middleton, 2014; Sibthorp, Paisley, & Gookin, 2007); however, few studies have attempted to identify and measure particular components of the social group that contribute toward the development of social connections. This paper seeks to better understand the development of social connections by identifying and testing key components within the OAE social group.

Interpersonal relationships with peers are a central focus for youth navigating the uncertainty of adolescence (Scholte & Van Aken, 2006). Positive social relationships have the ability to strengthen, solidify, and complement an adolescent's development and self-understanding (Shaffer, 2005). As interpersonal relationships develop and are grounded in aspects of trust, reciprocity, and sustained interaction, positive social connections are formed (Scholte & Van Aken, 2006). However, the development of social connections can be difficult for people, especially adolescents lacking in social experience while also changing biologically and psychologically. If not fostered appropriately, social connections can be developmentally detrimental and have long-lasting negative impacts (Goossens, 2006).

Negative experiences and group processes may ensue if students do not develop social connections with one another on OAE courses. The consequences of not developing positive social connections can generate feelings of isolation and abandonment, which can have devastating effects on adolescents, especially due to the fact that their peer group is such an important social milieu (Goossens, 2006). Given the unfamiliar physical environment and challenging technical tasks, students who are able to develop social connections with others will be able to attain the self-esteem and efficacy needed to complete the common challenges on OAE courses.

Practitioners of OAE often discuss the importance of group processes, group stages, and social norms as important theoretical components of OAE social groups (Martin, Cashel, Wagstaff, & Breunig, 2006). However, little research has explicitly attempted to dissect the social group into particular components that may be proactively addressed by adminstrators and instructors. Using the social system model created by Sibthorp and Jostad (2014) as a framework, the purpose of this study was to examine some of the more likely com-

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ponents of the social group that lead to stronger social connections between students on OAE courses. Specifically, this model posits that group dependent outcomes (social connections) are influenced by components including goals (goal conflict), the role of instructors or leaders (leadership consideration), student or participant factors (demographics), group factors (social status within the group), and time (duration of the course).

Social Connection

There are many ways to conceptualize the social connections within a group. While social cohesion has been used in many OAE studies (Eys, Ritchie, Little, Slade, & Oddson, 2008; Glass & Benshoff, 2002; Mirkin & Middleton, 2014), the broader social psychology literature has gravitated toward relatedness (Deci & Ryan, 2002), belongingness (Baumeister & Leary, 1995; Van Ryzin, Gravely, & Roseth, 2009), and group identification (Hogg & Hains, 1998). While each of these constructs is nuanced, they all, fundamentally, tap aspects of the social connections in a group or setting. We chose to operationalize social connections within a group identification framework because it taps into the multidimensionality of social connection.

Historically, group identification has been theorized as a multidimensional construct. The cognitive and affective dimensions are two dimensions that have been consistently found throughout the group identification literature. For the purposes of this study, the cognitive and affective dimensions of group identification were the focus because these dimensions have been noted to be important for adolescents (Killen & Coplan, 2011).

Cognitive Dimension

The cognitive dimension of group identification stems from the social identity literature and self-categorization theory, which suggests that individuals define themselves within social categories (Henry, Arrow, & Carini, 1999). This definition is based on the attributes one shares with others and is often represented as a dichotomous in-group versus out-group relationship. That is, individuals cognitively view themselves as part of the group or not part of the group based on certain attributes.

Oakes, Haslam, and Turner (1994) suggest categorization is a "dynamic, context dependent process, determined by comparative relations within a given context" (p. 95). First, this view suggests that categorization changes over time and the attributes that may be used by an individual to develop this identity can vary. For example, students may base their cognitive identity by their gender, by the sports they play, or by the geographic region in which they live. However, physical attributes are one of the most common means by which individuals categorize themselves (Harrison, Price, & Bell, 1998). Research has shown that these surface level attributes such as demographics (e.g., age, race, gender) may be important initially but become less influential over time, whereas deep-level

attributes such as attitudes, beliefs, and values become more influential over time (Harrison et al., 1998). Another critical dimension of group identification is the affective dimension.

Affective Dimension

Jackson (2002) suggests that the affective dimension is an "area ripe for investigation and may be an especially pivotal aspect of group identity" (p. 29). The affective dimension of group identification has seen less empirical work than the cognitive dimension. This dimension stems from the group cohesion literature and is most often conceptualized as the interpersonal attraction of the individual to others in the group. Although there are a number of different ways in which group cohesion has been operationalized in the literature, attraction toward others was one of the original formulations and continues to be one of the most consistent (Carron & Brawley, 2000). Jackson (2002) defines the affective dimension as "being satisfied with group membership and feeling a sense of commitment to the group or belongingness" (p. 16). Therefore, one aspect needed for individuals to identify with others in the group is to have and create affective bonds and interpersonal relationships with others.

Predictors of Social Connection

Based on the theoretical foundations of group identification and the complexity of social processes in small groups, predictor variables were chosen based on a social system model in OAE. Sibthorp and Jostad (2014) developed a social system model based on the extant small group and OAE literature. This model recognizes the complex and dynamical nature of the social system within OAE by identifying the main components of this system. For the purposes of this study, the components of goals, student factors, instructor factors, group factors, and time were used as predictors. Within each of these components, the specific variables chosen (goal conflict, leadership consideration, demographics, social status, and time) were based on the theoretical foundations of both group identification and the particular component.

Goal Conflict

One condition that can hinder the formation of positive social connections is goal conflict. While the majority of literature on goal conflict defines the construct as an intrapersonal conflict (Slocum, Cron, & Brown, 2002), we felt it was appropriate to expand the notion of goal conflict as an interpersonal phenomenon. In OAE, goal conflict often manifests itself when students do not have the same goals as the other students in the group or with the organization. The goals students have for participating in OAE courses can vary dramatically and/or not be clearly articulated (Crane, Hattie, & Houghton, 1997). Some students may want to focus on the development of technical skills whereas

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others may be driven by intrapersonal development. Since instructors are hired to deliver the goals of the program, their goals often align with programmatic goals, but they can be flexible in how they implement these goals. The types of goals students and instructors have can influence their interactions, and thus, their ability to connect with one another.

When goals align between individuals in small groups it has been shown to provide commitment, cohesiveness, and conflict resolution (Hackman & Katz, 2010). That is, individuals are more likely to have stronger interpersonal relationships because they share the same vision. Goals have the potential to influence an individual's affect, which is often most influenced by the facilitation or difficulty in achieving one's goals (Boudreaux & Ozer, 2013). Seijts and Latham (2006) showed that alignment between individual and group goals led to higher levels of performance on the task. Therefore, the cognitive and affective dimensions of group identification may be negatively influenced if students have different goals than others in the group, including both peers and leaders. Instructors hold a number of other roles in OAE. One central to the group is the level of consideration, or concern, a leader has for the students.

Leadership Consideration

Leadership consideration is the ability of the leader to maintain close relationships characterized by concern, respect, and the expression of appreciation and support for students (Judge, Piccolo, & Ilies, 2004). This person-centered leadership approach leads to stronger social connections between students and the leader (Yukl, 2006). Judge et al. (2004) provided a comprehensive meta-analysis that showed consideration was a strong predictor of member satisfaction. When individuals are able to respect, appreciate, and feel support from their leader, the ability to identify with that leader and other members becomes easier.

The relationship between the instructor and the student has received relatively little attention in OAE even though the impact and importance seems highly relevant. The extant literature strongly supports that positive interpersonal relationships between leaders and followers builds trust, solidarity, and commitment (Yukl, 2006). However, the importance of relationship building between student and instructor is lacking in the OAE literature and needs further empirical evidence. Student demographic differences can play an important role in how students interact with one another.

Demographics

Students bring a host of characteristics and attributes that may influence how they are able to identify with others in the group. Tubbs (2012) posits that all group interaction starts from these "background" factors that each individual brings, which include personality, gender, age, health, attitudes, and values. In naturally occurring groups, many of these factors may easily align between

individuals because people tend to socialize most often with others that have similar personalities, attitudes, and values. This alignment may also happen in organizational or sports team environments because people are hired or have been selected for the team based on particular skills or experience. While commonalities in attitudes and values may exist (e.g., an affinity for the outdoors), students on OAE courses typically have no prior experience with one another.

Gender. One of the common demographics in OAE is the gender of students. Gender is a variable that plays a key role on OAE courses and has the potential to influence the development of identity. Females tend to be a minority on OAE courses but have also been shown to possess stronger social motivations than males (Ewert, Gilbertson, Luo, & Voight, 2013). Females and males have been shown to form single-gender social cliques (Jostad, Paisley, Sibthorp, & Gookin, 2013); however, this may be a result of the ratio of females on courses and the inherent structural properties of OAE courses (e.g., single gender tent groups). There is a lack of research in OAE that has looked at the ratio of females to males on a course, and the influence of gender on the ability of students to identify with one another may provide an important understanding of social group development.

Socioeconomic status. Socioeconomic status is another demographic variable of interest, which has seen little research and warrants more attention as the demographics of our country change (Warren, Roberts, Breunig, & Alvarez, 2014) and if OAE is considered a space of privilege (Rose & Paisley, 2012). Providing scholarships is one way in which to break down the economic barriers that prevent many adolescents from participating in such experiences. Students who receive these scholarships most often come from inner-city environments and have had little wilderness experience. However, as Rose and Paisley (2012) note, "providing scholarships to marginalized students, for example, may only provide a venue change for the same patterns of privilege and power to manifest rather than tilting the systems that made such access unattainable or appealing" (p. 149). In order to "tilt the system," OAE programs have directed resources toward instructor education about inclusion and diversity, in addition to varying the number of students receiving scholarship on courses in order to see how having "similar peers" influences their experience. Paisley et al. (2014) found that differences in the number of students receiving scholarship in a group greatly influenced the experience these students had on OAE courses. Socioeconomic status plays a large role in the accessibility of such experiences, but there is still much to learn about the influence this may have on the social system of OAE courses. Despite the differences that may exist between individuals, the relationships that form between students create a social hierarchy or status in the group.

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Social Status

As groups develop and students interact with one another, a social hierarchy emerges and differentiates members of the group based on status (Forsyth, 2010). Fundamentally, status is derived from salient personal characteristics that others in the group believe are important (Rodkin, Ryan, Jamison, & Wilson, 2013). We were specifically interested in a peer-nominated measure of social status to preclude the inherent problems with self-report instruments, where students might hold inaccurate self-perceptions of their social status within the group. Status, the way we are defining it, is based sociometrically by the number of times a student was chosen, or nominated, by another student to accompany them during a day of independent student travel (without instructors present). When students choose the group members they would prefer to spend time with, those that hold more social status within the group become apparent. If a student holds more status within the group, it stands to reason that they concomitantly have a higher level of group identification than those with fewer nominations. As Anderson, Kraus, Galinsky, and Keltner (2012) suggest, "as a reflection of respect and admiration among peers, sociometric status is likely to strongly influence the personal sense of power and feelings of social acceptance" (p. 765). Others have looked at groups in the wilderness context and found that individuals had lower feelings of social cohesion when perceived by others as having less status (Eys et al., 2008). Status is not concrete, but rather, may fluctuate throughout the length of the course.

Time

While many aspects of an OAE experience contribute to how and why students feel a sense of connection to their group, we also know that this process is dynamic and changes over time. Any of the common models of group formation (e.g., Tuckman & Jenson, 1977) account for stages or shifts in structure as a group progresses from a combination of individuals to some semblance of a group.

Time is a critical component to all OAE programs. Depending on the organization and context, OAE experiences can range from a single day to a multi-week or even multi-month experience. While most studies use a pre-post research design, this provides little insight into the dynamic nature of OAE courses. The development of an identity with others in a group should naturally increase over time, however, the rate at which these identifications develop is relatively unknown.

There are many facets that contribute to the way a student identifies with others in the group. This research attempts to identify the components that are most salient to the development of social connections and to understand the influence these components have on students who participate in OAE courses.

Methods

Participants

During the summer of 2013, data were collected from 237 students on 22 courses participating in 30-day backpacking expeditions in the Rocky Mountains with the National Outdoor Leadership School (NOLS). The mean age of students was 17.1 years; 65% of the sample was comprised of males, and 35% females. Groups varied in composition in regard to the number of male and female students and the number of students who received scholarships. Six courses did not have any students receiving scholarships, two of which were all male courses. Fourteen of the courses were mixed courses (consisting of both students receiving and not receiving scholarships), and had 1-6 females and 1-3 students receiving scholarships per course. The final two courses consisted of all students receiving scholarship. As only 12 of the students were over the age of 19 years and all were under the age of 23 years, they were all considered adolescents for purposes of this study.

The courses were typical backcountry OAE courses where students learn outdoor living skills, backcountry navigation and route-finding skills, environmental studies, risk management, and leadership skills. Due to the logistical challenges of collecting multiple data points in the field, data were collected during two re-rations (approximately days 10 and 20) and on the final day of the expedition (day 30). All questionnaires were administered by the instructors of the course and students were ensured their responses would be confidential. Students were asked to find space away from others while completing the questionnaires and not to share their responses with others. All data were removed from the field by the re-ration team immediately following each administration.

Instruments

The affective and cognitive sources of group identification were measured using The Group Identification Scale (Henry et al., 1999). Four items were used to represent the affective dimension while two items were used to represent the cognitive dimension. Goal conflict was measured with two items written by the authors which stated "I want different things from this course than other people in this group" and "I want different things from this course than my instructors want for me." Leadership consideration was measured using a four-item sub-scale of the Leader Behavior Description Questionnaire (LBDQ-XII; Stogdill, 1963). All items were based on a five-point Likert-type scale ranging from "strongly disagree" to "strongly agree."

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In this study, socioeconomic status was represented by students who received scholarships. Ratios of gender and scholarship status were computed to assess group level effects on identification. The gender ratio was operationalized as the ratio of females per course and the scholarship ratio was operationalized as the ratio of students receiving scholarship per course. Some students who received scholarships were in mixed courses while others were in all scholarship courses. Furthermore, there were also courses that did not have any students receiving scholarships.

Social network analysis protocols (see Jostad, Sibthorp, & Paisley, 2013) provided the peer-nominated indicator of social status. These data were collected by asking students to choose three members of their group they would prefer to be with based on a backcountry social scenario, which specifically stated:

> You are preparing to do an easy day of travel without instructors. The route is only a few miles on-trail and the weather will be excellent. You will be camping near a lake and should have plenty of time to hang out and enjoy each other's company. Name up to three students you would want in your group.

Analysis

Multilevel modeling was used because of the nested design of the data (Raudenbush & Bryk, 2002). A three-level model was developed using the statistical package Hierarchical Linear Modeling (HLM) and included time at level one, student at level two, and group at level three for both dependent variables; however, the affective and cognitive dimensions did not significantly change over time. Because our findings did not vary across time intervals, time was removed from the model. A revised two-level model was developed for hypothesis testing that included students at level one and groups at level two based solely on the final administration (end of the course) of the instruments. Group identification was tested for the following relationships (the term group identification is used here to represent both the affective and cognitive dimensions):

- Group identification will be negatively related to goal conflict and positively related to leadership consideration, and social status.
- Group identification will be different for females than males and be positively related to the gender ratio (proportion of female students per course).
- Cognitive identification will be positively related to the scholarship ratio (proportion of students receiving scholarship per course) for students who are receiving scholarships.
- Students receiving scholarship in a group with all students receiving scholarship will have a higher level of cognitive identification than students receiving scholarship from a mixed scholarship group.

Results

Basic psychometrics were run for each measure prior to hypothesis testing. Using Cronbach's alpha, the reliability was acceptable for the affective ($\alpha = 0.74$) and cognitive ($\alpha = 0.72$) domains of group identification. Leadership consideration initially had an unacceptable reliability ($\alpha = 0.60$). After reviewing one question that was causing the reliability to be low, the authors determined the wording was vague and could have led to misinterpretation. Therefore, this question was removed from the subscale score, which then provided an acceptable reliability ($\alpha = .72$). Goal conflict with other students and instructors were assessed with single items.

Affective Dimension

The first step in the analysis of a multilevel model is to run the null model to obtain the Intraclass Correlation Coefficient (ICC) in order to observe the variance distribution between levels. The ICC for the affective (AFF) dimension was 0.18, which shows that 18% of the variance was attributable to course differences. Level-one predictors that were group mean centered were goal conflict with others (GCO), goal conflict with instructors (GCI), and gender (GEN). The level-two predictor, leadership consideration (LC), was grand mean centered. Social status nominations (SSN) at level one and gender ratio (GENR) and scholarship ratio (SCHR) at level two were not centered because they have a meaningful value of zero.

For the level-one predictors, the results suggest that goal conflict with others had a significant negative relationship ($\beta = -0.11$; $p < .001$) and social status had a significant positive relationship ($\beta = 0.03$; $p = .01$) with the affective dimension. That is, group identification decreased as goal conflict among students increased, and group identification increased as the number of social status nominations students received increased. More specifically, students affectively identified with others in their group 0.11 units less when they were one unit above the group mean of goal conflict with other students. In addition, students identified 0.03 units more for every unit (nomination) they were from zero nominations. Goal conflict with instructors and the gender of a student were not significant predictors.

For the level-two predictors, the results suggest that there was a significant positive relationship with leadership consideration ($\beta = 0.33$; $p = .05$) and gender ratio ($\beta = 0.40$; $p = .01$). That is, group identification increased for students when their group had more leadership consideration and when the ratio of females in the group were higher. More specifically, students identified with others 0.40 units higher when their group was a unit above the grand mean of leadership consideration. Furthermore, students identified with others 0.54 units higher when the ratio of females in the group increased every unit from zero. The scholarship ratio on courses was not a significant predictor of the affective dimension. See Table 1 for all test statistics.

Table 1

Test Statistics for the Affective Dimension

		β	*SE*
Level 1	GCO*	-0.106	0.030
	GCI	-0.056	0.045
	SSN**	0.031	0.013
	GEN	-0.072	0.077
Level 2	LC**	0.335	0.161
	GENR**	0.641	0.200
	SCHR	-0.095	0.123

*$p < .001$; **$p < .05$

The effect size for the model was computed using the variance components of the null model and predicted model with the equation: null model – predicted model/null model. The effect size of the level-one model was 0.08 and the level-two model was 0.39. That is, the level-one predictors explained 8% of the variance at level one, and the level-two predictors explained 39% of the variance at level two.

Cognitive Dimension

A two-level model was also developed with the final administration to assess the cognitive (COG) dimension of group identification. The ICC was computed to assess the variance between levels one and two and resulted in an ICC of 0.06. This result shows that 6% of the variance was at level two and 94% of the variance was at level one. The same predictors were used in this model.

The results suggest that there were two significant level-one predictors. Goal conflict with others was negatively related to identification ($\beta = -0.30$; $p < .001$) and social status was positively related ($\beta = 0.04$; $p = .05$). That is, group identification decreased when goal conflict increased, and increased when social status increased. More specifically, the cognitive dimension of identification decreased by 0.30 units for every unit the student is above the group mean in goal conflict. Furthermore, identification increased 0.04 units for every unit increase of social nominations. Goal conflict with instructors and gender were not significant at level one. No level-two variables were significant. See Table 2 for all test statistics.

Table 2

Test Statistics for the Cognitive Dimension

		β	*SE*
Level 1	GCO*	-0.300	0.046
	GCI	-0.024	0.050
	SSN**	0.035	0.018
	GEN	-0.076	0.091
Level 2	LC	-0.112	0.281
	GENR	0.070	0.222
	SCHR	0.253	0.205

*$p < .001$; **$p < .05$

The effect size for this model was computed using the same equation as above. No effect size was computed for level two because there was such little variance and no significant predictors. The effect size of the level-one model was 0.16 and suggests that these predictors explain 16% of the variance at level one of the model.

Because the cognitive domain is based on self-categorization, we were interested in whether students who received scholarships identified with the others in their group differently depending on the number of other students receiving scholarship in their group (scholarship ratio) and the composition (mixed or all students receiving scholarship) of their group. That is, we expected to find higher levels of cognitive identification for students on scholarship when the scholarship ratio of their group was higher. We tested a cross-level interaction between scholarship student and scholarship ratio but did not detect a relationship. Reasoning that there would be a difference between students receiving scholarship on "mixed" courses and "all" scholarship courses and to assess whether this may have changed over time, a 2 (group) x 3 (time) MIXED ANOVA was conducted. The group x time interaction was significant ($F_{(1, 42)} = 6.17$; $p = .05$). Post hoc tests suggest that students who were in a group with all students receiving scholarship had higher levels of cognitive identification at time 1 (day 10) than the mixed group, but that this difference diminished as the course progressed. Using Cohen's d, a large effect size (d = 0.77) was found at time 1.

Discussion

The purpose of this research was to better understand how some components of the social group are related to the development of social connections

in OAE. Specifically, we modeled goal conflict, leadership consideration, student demographics, social status, and time to represent the components of the social system on OAE courses (cf. Sibthorp & Jostad, 2014).

Goal Conflict

Goals are often the foundation of educational institutions and the group formation. You often see goals written like this: *When students have completed the course, they should be able to* (fill in the blank). While this structure of goals is common among program administrators and instructors, students often do not enter a program with this goal structure in mind.

Administrators and instructors need to provide a clear and concise objective for their program. If students are unaware of what they should be learning and how the experience should help them, then their goals may conflict with those of the program. Programs should also be wary of proclaiming numerous outcomes for students. Students seeking solitude and time to connect with nature may be disappointed when course time is dedicated to learning technical skills or building a cohesive expedition team. Though in this study conflict was not found between students and instructors, we saw that goal conflict between students limited how they were able to connect other students.

There are many possible reasons that students may attend an OAE course. Some students participate in OAE courses to learn new technical skills, develop leadership skills, or simply meet new friends. With the plethora of outcomes that are possible for students to achieve on OAE courses, it is not surprising that students may have conflict with one another based on these differing motivations. The link between goal conflict and social connectedness is limited. However, some have looked at goal conflict and psychological well-being and have shown that goal conflict is associated with negative affect (Boudreaux & Ozer, 2013). The only study we found that looked explicitly at goal setting in the OAE realm found that students tended to have vague goals; however, when students had similar goals as one another, they were shown to be more successful (Crane et al., 1997).

This research showed that students developed less social connectedness with others when goal conflict existed. Therefore, instructors should communicate with their students about student goals consistently throughout the course. If students do not have specific goals, or have goals that are not attainable, then these goals should be modified by the instructor and student. Depending on the program, it may also be helpful for students to share their goals with other students. If students are more aware of other student goals, they may try to help these students and possibly even embody these goals. Lastly, instructors can also emphasize group goals. Even if students have different personal goals, they can share a common group goal that links every student toward a common objective.

These findings on goal conflict contributes to the OAE and small group literature in two specific ways. First, this research demonstrates the importance of providing clear goals for a course and encouraging students to articulate their own personal goals. Additionally, this study expands the research on goal conflict by showing that members with discordant goals can be the sources of goal conflict. Most goal conflict research up to this point has focused on intrapersonal conflict.

Leadership Consideration

The necessity and importance of interpersonal leadership skills is well known (Martin et al., 2006); however, these skills are often not given as much attention in the OAE literature in favor of leadership competencies in areas such as risk management, decision-making, technical skills, or teaching skills. The outdoor instructor is required to be a "jack of all trades," but the importance of how their relationships with students influence student outcomes has seen little attention. These findings suggest that the connection students make with their instructor is important and influences how they affectively respond.

This research found that the more the group felt their instructors exuded considerate behaviors, the more individuals felt affect toward other members in the group. Schumann, Paisley, Sibthorp, and Gookin (2009) identified both instructor behaviors and traits that impacted student learning on NOLS courses. One of the important characteristics noted was empathy, which they identified as the "instructors' ability to listen to their [students'] concerns and make them feel validated and understood" (p. 22). Other categories that relate to these findings include role modeling and creating a supportive learning environment. One possible reason for this finding may stem from the role modeling behaviors that are essential for OAE instructors (McKenzie, 2003). When students see and feel their instructor show appreciation and support, they may be more likely to replicate these actions toward others, which in turn can lead to a greater affective state for individuals. A number of studies in OAE have shown that students are more successful when more social support is provided by their instructors (Draper, Lund, & Fisher, 2011; Sibthorp, Furman, Paisley, Gookin, Schumann, 2011).

Some instructors may be more inclined to exude considerate behaviors due to aspects of personality or enjoyment of the course. However, considerate behavior is something that can be learned and should be part of staff training for programs. Administrators can provide trainings that help instructors communicate, listen, and develop emotional intelligence. Instructors can become more considerate by checking in on their students on a daily basis or by sharing information about themselves to students. If instructors are working with students who are much younger, then it would be very helpful for the instructors to become familiar with the popular culture of that age group. This will help

instructors relate to their students and have conversations that might be difficult otherwise.

Student Demographics

We chose to ask questions about gender and socioeconomic status due to the theoretical foundations of group identification, the population, and the need for a further understanding of the role socioeconomic status plays in OAE experiences.

Gender. Understanding differences between males and females is needed in OAE research (Norton & Watt, 2014). Males and females often differ in the importance placed on social aspects of an adventure experience. Ewert et al. (2013) found that females participating on adventure experiences were more socially oriented than males. Others have also suggested that females place more of an emphasis on the affective domain of identification because relationships are a primary motive (Deaux, 1996). The results from this study did not find a significant difference in either dimension based on gender and this aligns with the majority of OAE research (Hattie et al., 1997), although others have found greater gains in social competencies for males (Norton & Watt, 2014). One possible reason for this could be due to the unequal numbers of males and females on different courses. Some courses only had two female participants, whereas others had between four and nine female participants. Given that the students are adolescents, they often create groups and cliques according to their gender (Jostad et al., 2013). When groups have small numbers of females, it may be more difficult for them to identify with a majority male population. Instructors need to be cognizant that females and males may differ in the emphasis they place on the social aspect of the course. Single gender groups or co-ed groups may need to be lead differently because of these differences.

There has not been any research that has explicitly looked at the gender ratio of students on OAE courses outside of single gender groups. As the ratio of females on a course increased, both male and female student affective identities increased. This result suggests that students will have higher levels of affective identification when there are more females in the group. However, most courses did not have a gender ratio above 0.5, which suggests the relationship in these data only hold true until groups are approximately 50% male and 50% female. While these findings may lend some evidence for the value of a balanced ratio between males and females in the group, we did not have data of groups with predominately females. Administrators should consider the gender make-up of their courses and help instructors prepare for gender differences. The ratio of females and males is worth additional work given the limitation of our sample.

Socioeconomic status. This study used scholarship status as a proxy for socioeconomic status. Even though the scholarship ratio was not significant

in the affective dimension, we believed it was likely that students receiving scholarships would cognitively identify with others differently based on their group composition and that this would change over time. There was a significant difference between the two groups at day ten, but this difference declined and became non-significant as the course progressed. These findings align with what Harrison et al. (1998) suggested that students may identify with others early in the course based on "surface-level" characteristics such as gender and age, whereas this may decline over time, and "deep-level" characteristics such as attitudes and values become more important.

The implications of these findings suggest that OAE may be a venue that can lower the barriers between adolescents of different socioeconomic status. Paisley et al. (2014) looked specifically at the differences among groups with three different compositions of students from lower socioeconomic backgrounds. These findings align with what they found, in that there was a strong "separation" between students from lower and higher socioeconomic status approximately one-third of the way through the course. While their study did not attempt to model the dynamic nature of social status, it does show that differences between students can be challenging to overcome immediately. Wright and Tolan (2009) also found that adventure activities can be used to teach students about diversity and reduce prejudice. In their qualitative study, some of the themes identified included the value of a diverse group, awareness of personal prejudice, and stereotype discontinuity.

Administrators and instructors need to be aware that it takes time to overcome these differences. In this study, it took approximately three weeks to see these changes, but some courses may not be long enough to provide this type of change. Furthermore, these findings demonstrate the importance of students learning about the internal aspects of other students, which can be facilitated by instructors through games, activities, journaling, and focused non-structured time that allow students to get to know one another on a more personal basis.

Social Status

The more social nominations students received from others in the group, the more they identified both affectively and cognitively. One of the fundamental aspects of developing positive affect is the formation of meaningful social bonds (Baumeister & Leary, 1995). Although these results only suggest that the number of nominations increase identification, these nominations may also be a product of meaningful relationships. Jostad et al. (2013) looked at reasons why students on OAE courses preferred to be with others in social situations. Based on the relationships at the end of the course, two of the three themes identified were: "connections with others" and "experienced best times with." These results suggest that relationships at the end of the course are based on the experiences, memories, and social and emotional connections students have with one another.

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Status can be a product of many different characteristics of a person. We were specifically interested in social status, but recognize that status can result from a variety of characteristics, such as particular technical skills or experience. Instructors need to be aware of what the group emphasizes as important, since this is the foundation of what develops status. For example, if the group places a strong level of importance on physical ability, then status will develop around this characteristic. If this is not what status should be about in the group, then instructors need to encourage student thinking towards other positive aspects of status (e.g., expedition behavior) which may create a more inclusive environment.

Time

Though we theorized that the affective and cognitive dimensions of group identification would increase over time, our results showed that neither dimension was related to time. Considering that the timing of the measurements began at day ten, it may be possible that each dimension had already fully developed for individuals. This result suggests that instructors only have a limited amount of time before the social connectedness of the group forms. On shorter courses such as those lasting two weeks, this timing may be even shorter. The lack of change seen may also be due to the administrations occurred during two re-ration points and at the end of the course. Food is a key commodity on OAE courses (Paisley et al., 2014), and re-rations are often a time of transition for students. Students are usually beginning to work with a different cook and tent group and may possibly be orienting their feelings toward others with whom they have not yet had any conflict. This transition may have an influence on the feelings people have toward one another.

Identification with other individuals in a group is a dynamic construct (Deaux, 1996), but the timing of our measurements were not able to detect any change. When trying to model a changing system, scholars need to consider how the timing of their administrations may influence the results of the phenomena under study. For example, if the affective and cognitive domain were to develop rapidly at the beginning of group experiences and then stabilize over time, the true dynamics of the phenomena may be missed if the timing of measurement is not appropriate. Future research should consider administering measures a couple of days after the course begins. We recognize the ability to collect multiple data points in the field is often extremely difficult and researchers are often happy to collect whatever data are available. In our case, the only feasible option to ensure we were able to retain all of the data was to collect it at a re-ration. However, it should also be of concern that the timing of measures correspond well with the theoretical nature of the phenomena under study; otherwise the detection of appropriate changes will not occur.

Limitations

In addition to the issues related to the timing of the instrument completion, there were several other limitations that should be considered when interpreting these results. First, the research design is non-experimental and the only conclusions that can be made are the associations between variables. Unfortunately, we cannot suggest any causation of why individuals identify with others differently, but the associations provide a starting point to consider future research. Second, our measures of student characteristics were limited. Given the limited age range of our sample, age was not modeled and other student factors such as personality or attitudes were neither measured nor modeled. Third, we have little detail on the reasons behind some of the findings. For example, we do not know the nature of the goal conflicts reported with other students. While it is helpful to know that students may have conflicting goals with one another, it would also be helpful to understand the nature of this conflict. As this line of research advances, it would benefit from additional details on the nature of the variables thought to play a role in the OAE social group.

There are many factors within an individual and a group that influence how a student identifies with others. Though there were significant findings, the effect sizes for our level one models were small and suggest there was a large level of variance unexplained at the individual level.

Conclusion

The social group remains a critical aspect of OAE, and is especially salient to adolescents regardless of context. As we work to better tailor OAE programming for different populations and purposes, we need to better understand the processes that underpin this central phenomenon of OAE.

The OAE social group is different than many other social groups adolescents may encounter. The remote and cloistered nature of OAE exacerbates the importance and influence of the group. Although the types of challenges students encounter in these groups can provide a unique arena for positive social growth unattainable at home, negative social experiences can also ensue. Programs need to provide an environment and structure that ensures the social group is an inclusive and positive experience for adolescents.

This research sought to further understand the important components within the social group that encourage social connections between students by testing a model of the social system. We found at least one variable from each component of the model to have a significant relationship to the development of social connections. These results show that this model may provide a viable explanation and description of the social system in OAE; however, further empirical evidence that uses different variables is strongly recommended.

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