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of the
2012 Symposium on Experiential
Education Research



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Welcome to SEER

Welcome to the 12th Annual Symposium on Experiential Education Research (SEER). The purpose of this Symposium is to provide a formal setting for the reporting of research in the broad areas of Experiential Education. Toward that end, all the research presentations were blind reviewed by a panel of referees, and the scores tabulated by the co-chairs before final decisions were made and themed sessions assembled. Whether accepted or not, the authors who submitted material should be congratulated for their efforts.

This year, we are pleased to expand SEER to include a key points and summary of potential research topics discussions to each of the SEER sessions. In addition, as is now our tradition, we are delighted to open the SEER with a reception and address for the winner of the 2012 Distinguished Researcher Award, Dr. Lee Gillis. Congratulations Lee!

Along with the researchers who submitted their work for review, we also wish to recognize others for their efforts in making the Symposium a reality. First, the AEE and its various staff members including Evan Narotsky, Shawn Tierney, Laurie Frank, the 2012 Conference host team for their support and coordination of SEER, the JEE editorial team (Pat Maher, Glyn Thomas, Phil Mullins, and Simon Beams) for their support of SEER, and Bobbi Beale and the AEE Council on Research and Evaluation (CORE) for its ongoing support. Much appreciation also goes to the scholars who graciously served as reviewers of the submitted abstracts: Brent Bell, Mat Duerden, Garrett Hutson, Marni Goldenberg, Bruce Martin, Jillisa Overholt, Amy Shellman, Deb Sugerman, and Frank Vernon. We wish to extend a warm welcome to Denise Mitten, incoming co-chair for SEER. Also, our appreciation to Laura Alexeichik, Jillisa Overholt, and Jay Whitacre for their willingness to serve as Key Note Summarizers during the Symposium.

And finally, a special thanks to the attendees of this year's Symposium, since it is your keen interest and thoughtful feedback that ultimately drives the research and practice relationship in the AEE. It is for you and the various educational endeavors you are part of within the broad areas of experiential education that our efforts are directed.

Thanks to all of you for being a part of SEER.

Alan Ewert, Co-Chair (2011-2012)
Stacy Taniguchi, Co-Chair (2012-2013)

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2012 Symposium on Experiential Education Research (SEER)

Time Thur. 11/1 2:45- 4:15	Keynote Session	Time Thur. 11/1 4:30- 6:00	SEER Session II	Time Sat. 11/3 1:00- 2:30	SEER Session III	Time Sat. 11/3 2:45- 4:15	SEER Session IV
	2:45 - Welcome to 2012 SEER <i>Alan Ewert, SEER Co-chairman, Indiana University</i>	5 min	Introduction and Overview <i>Stacy Taniguchi, SEER Co- chairman, Brigham Young University</i>	5 min	Introduction and Overview <i>Alan Ewert</i>	5 min	Introduction and Overview <i>Stacy Taniguchi</i>
	2:50 - Distinguished Researcher Address: Dr. Lee Gillis, Georgia College and State University	20 min	Andrew Bailey, Hyoungkil Kang, & Irene Fernando, <i>Social identity and organizational culture in experiential programming</i>	20 min	Keith Russell, <i>An evaluation of the Student Conservation Association's community program</i>	20 min	Erin Lotz, Denise Mitten, Karen Warren, & Chiara D'amore, <i>The hidden curriculum in adventure education: A Delphi Study</i>
	3:15 – SEER Session I						
20 min	Stephen Javorski, <i>Risk Management monitoring in outdoor behavioral healthcare: Incident, illness, and restraint rate trends since 2001</i>	20 min	Sharon Todd, Garrett Hutson, Tim O'Connell, Anderson Young, Lynn Anderson, & Mary Breunig, <i>Utilizing reflective journaling as a gateway to understanding sense of community: A unique triangulated research approach</i>	20 min	Jim Sibthorp, M. Deborah Bialeschki, Cass Morgan, & Laurie Brown, <i>Validating, norming & utility of a youth outdoor battery for outdoor programs and camps</i>	20 min	Benjamin Mirkin, Michael Middleton, & Jayson Seaman, <i>The relationship between social climate and peer interactions on adventure-based outdoor courses: A mixed methods investigation</i>
20 min	Anita Tucker, Bobbi Beale, Steve Javorski, & Julie Tracy, <i>The use of adventure therapy in community-based mental health: Decreases in problem severity among youth clients</i>	20 min					
25 min	Discussant/Facilitator <i>Jay Whitacre</i>	20 min					
		25 min	Discussant/Facilitator <i>Jill Overholt</i>	25 min	Discussant/Facilitator <i>Laura Alexeichik</i>	10 min	2012 SEER Concluding Comments <i>Alan Ewert & Stacy Taniguchi</i>

SEER ABSTRACT 2012

Injury, Illness, and Restraint Rates in Outdoor Behavioral Healthcare

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Review of the Literature

Risk is an inherent element of wilderness and adventure-based programming that is intentionally used by skilled facilitators and therapists to create a state of eustress in clients in an effort to support positive development (Russell & Harper, 2006). Providers of quality adventure programming seek to minimize the actual risk in client experiences while maintaining a level of perceived risk sufficient to create the adaptive dissonance thought to be necessary to support this change (Gass, Gillis, & Russell, 2012; Priest & Gass, 2005). The data developed through the WRMC/AEE Incident reporting project from 1992 – 2008 provided insight into the types and severities of, and factors relating to incidents in adventure programming (Leemon, 2008). The Outdoor Behavioral Healthcare Industry Council's (OBHIC) risk management database specifically addresses incidents, illnesses, and restraint rates in residential Outdoor Behavioral Healthcare (OBH) programs, and has contributed to this knowledge base since its inception in 2001 (Outdoor Behavioral Healthcare Research Cooperative (OBHRC), 2011; Russell & Harper, 2006).

Analyses of OBHIC data have shown promising trends in OBH program incident, illness and restraint rates (OBHRC, 2011). In 2010, OBHIC member programs reported client injury, illness, and restraint rates of 0.48, 0.53, and 1.83 per 1000 field days respectively. Despite working with high risk populations, OBHIC client injury and illness rates have been lower than those reported by NOLS since 2001 ("Risk Management at NOLS," 2011), and the OBHIC restraint rate in 2010 was more than four times smaller than that found in inpatient mental health facilities serving youth in the United States (Gass, et al., 2012). Although the OBHIC data has clearly described incident types and frequencies, information about the circumstances surrounding each incident has not been included in the database to this point.

A deeper understanding of the factors related to incidents and actual incident rates in Outdoor Behavioral Healthcare programs is not only essential to practitioners seeking to improve their own risk management practices, but also to evaluate the Miller Bill's (Stop Child Abuse in Residential Programs for Teens Act, 2008) claims that wilderness therapy programs are excessively dangerous and frequently overuse physical restraints. Such findings may have substantial practical application for OBH practitioners; once patterns in incident rates are established for OBH programs, practitioners can make informed decisions about when to increase staff to client ratios, alter programming to be more or less physically or emotionally challenging, or change timing for meals, hard skill lessons, therapeutic processing, and reflection in order to more effectively manage or reduce exposure to actual risk in the field.

The purpose of this study was: (1) to explore the relationships between injury, illness, and restraint rates in OBHIC programs and weather, time of day, current activity, and the percentage of the program the affected client had completed at the time of the incident; and (2) to evaluate the extent to which patterns established by the AEE/WRMC Incident Reporting Project transfer to the therapeutic setting of OBHIC programs.

Method

OBHIC has set criteria for an incident to be included in the annual report to the risk management database. All injuries, illnesses, and restraints, meeting these criteria were recorded by OBHIC member programs for 2011 ($n = 12$) as described in Russell and Harper (2006), and submitted to the OBHIC incident database at the University of New Hampshire. The activity the client was engaged in, weather, client days in program, time of day, and date at the time of each reportable incident, as well as total client and staff field days, average length of stay, total clients enrolled, and total clients completing treatment were reported. In total, 146 client incidents were reported over 65,642 client field days in 2011.

Restraints were defined as any action that restricts a client's freedom of movement against their will, even in the absence of physical or chemical restraint devices. While OBHIC has historically categorized such actions into 3 categories based on duration of the hold, they were collapsed this year to allow for easier comparison to restraint rates in other programs.

Injuries and illnesses were defined as any such incident that requires a client spend more than 12 hours out of regular programming (including time spent at rest in the field). Injuries and illnesses were categorized as level 2 if the incident required overnight hospitalization/advanced medical attention.

Client injury, illness, and restraint rates were calculated in terms of incidents per 1000 client field days, where one field day is defined as a 24 hour period in program for one client. In addition to overall incident rates, data was further disaggregated by activity, time of day, and percentage of program completed (based on average length of stay) at time of incident. Data about activity duration was not collected in 2011, and therefore incident rates by activity could not be calculated. Pearson correlations were run between all variables, and frequency data explored with histograms and scatter plots.

Results

OBHRC client restraint, injury, and illness rates were 1.47, 0.57, and 0.29 incidents per 1000 client field days respectively in 2011. As illustrated in figures 1 and 2, restraints most commonly occurred during the first 10 percent of a client's time in a program, with peak frequency occurring between 1:00 and 2:00pm. Injuries most commonly occurred for when clients had completed between 10 and 20 percent of the treatment program, with a peak in

Figure 1 - OBHRC incident frequency by percentage of program completed

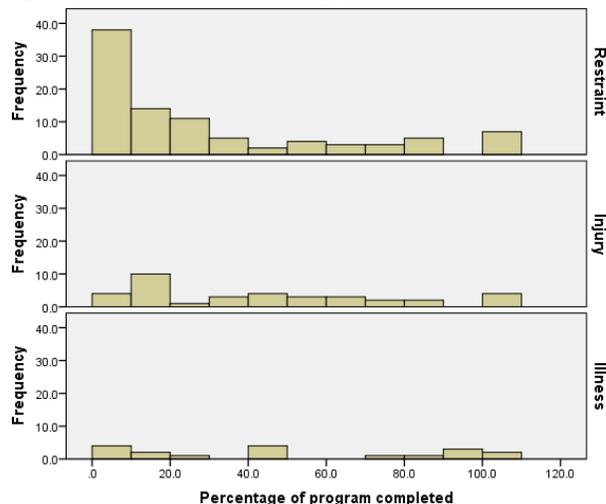
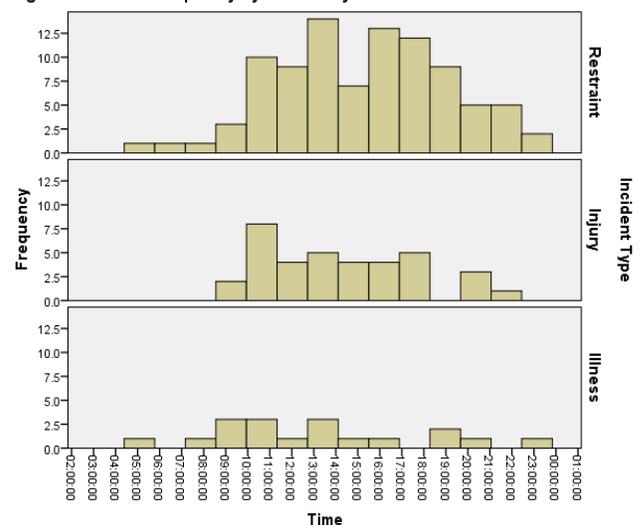
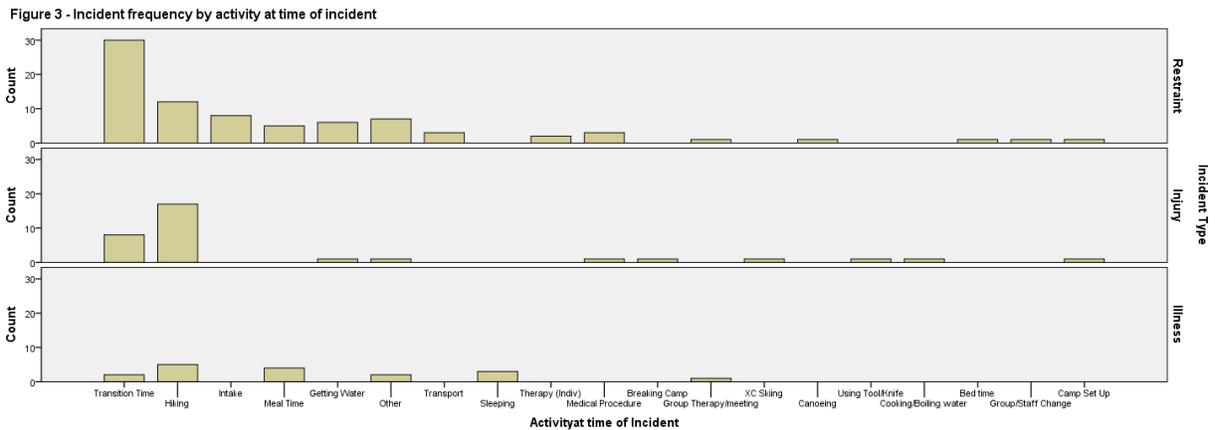


Figure 2 - Incident frequency by time of day



overall injury frequency between 10:00 and 11:00am. Client illnesses were most frequently reported during the first 20 percent of client’s time in program, and most commonly reported between 9:00 and 11:00am. It is noteworthy that there was a slight increase in injury and restraint frequency for client who had been in treatment for longer than the average length of stay for their respective program.

As illustrated in figure 3, restraints and injuries were most common while participants were hiking or transition from one activity to another. In total, 52 percent of all restraints and 76 percent of all client injuries occurred during these activities. Illnesses were most commonly reported while participants were hiking and during meal times.



Discussion

Counter to claims made by the proponents of the “Miller” Bill (2008), study results suggest incident and restraint rates in outdoor behavioral healthcare programs are not significantly different from other treatment options for similar populations. National injury rates for all US adolescents treated in emergency rooms in 2010 was estimated to be 0.38 per 1000 days in 2010 (WISQARS, 2011), and the National Association of State Mental Health Program Directors Research Institute, Inc., (NRI) estimate the average client injury rate for all inpatient mental health patients in the US to be 0.41 per 1000 client days in 2011(NRI, 2012). Since rate of injuries in Outdoor Behavioral Healthcare programs in 2011 was 0.57 injuries per 1000 days, compared to the general public and US inpatient mental health patients, OBHRC participants experienced one additional injury every 5263 and 6250 days respectively.

National restraint data for residential treatment centers serving youth is reported in hours of restraints per 1000 hours of treatment, and does not allow for direct comparison to OBHRC data(NRI, 2012); however, some states do report restraint rates in incidents per 1000 client days. The Ohio Department of Mental Health reported an average restraint rate of 34.3 restraints per 1000 client days in 2010 (Crane-Ross & Sweeny, 2010), or approximately 23 times the restraint rate in OBHRC programs. While this comparison does not account for differences in severity of client symptoms, it does suggest that Outdoor Behavioral Healthcare programs may use substantially fewer restraints than traditional residential services working with similar groups.

This study was limited by a relatively small sample size, considerable homogeneity of OBH clientele, and potential inconsistencies in incident reporting. In addition, 2011 was the first year that weather, activity, time of day, and percentage of program completion data has been collected; more time is needed for this aspect of the database to mature. Future research should

focus on increasing incident reporting fidelity, and consider adding additional variables addressing staff to client ratios and field staff years of experience/training at the time of each incident.

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SEER 2012 Abstract

The Use of Adventure Therapy in Community-Based Mental Health: Decreases in Problem Severity among Youth Clients

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An important role of community mental health centers is to collaborate with community agencies to provide outpatient treatment in an effort to avoid placement of youth in residential care (Substance Abuse and Mental Health Services Administration [SAMHSA], 2007). Although SAMSHA has provided about \$400 million per annum to support for community-based mental health treatment since 2005 (Cooper, 2008), with \$413 million allocated for community mental health partnership block grants in FY 2012 (SAMSHA, 2011), there is limited evidence supporting the efficacy of these programs. While SAMHSA has recognized Assertive Community Treatment (ACT) and several variations of Multi-Systemic Therapy (MST) as evidenced-based approaches to community-based mental health treatment, these interventions are not widespread (SAMHSA, NREPP, 2008; SAMHSA, 2008), and there is an increasing need to identify and describe effective mental health treatment practices for children and adolescents in community-based settings (Warren et al., 2010).

One intervention which may meet this need is adventure therapy. Adventure therapy (AT) has been used as an alternative to inpatient treatment for youth and adolescents resistant to standard counseling and other traditional treatment options and as an adjunctive treatment option (Fletcher & Hinkle, 2002; Norton & Tucker, 2010; Tucker, 2009). In this activity-based modality, clinicians intentionally use a variety of adventure experiences to promote client change (Alvarez & Stauffer, 2001) by engaging clients in kinesthetic interventions (Tucker, 2009). Although the majority of AT outcome studies have been conducted in residential and wilderness-based settings (Gass & Gillis, 2010; Harper & Russell, 2008; Harper, Russell, Cooley, & Cupples, 2007; Jones, Lowe, & Risler, 2004; Russell, 2007), the adaptable nature of the technique suggests it may excel as a treatment option in community-based settings. This is the first study to evaluate the outcomes associated with AT interventions in the context of a community-based treatment center. Using a sample of youth from a large community-based mental health center in the Midwest of the United States serving clients from urban, suburban, and rural areas, this exploratory study addressed three questions: (a) Is AT an effective treatment modality for youth in a community-based care context compared to traditional individual, family, and group counseling? (b) How do changes in problem severity associated with participation in AT-based interventions compare with those associated with traditional individual, family, and group counseling across gender, age, primary diagnosis and race? (c) What individual, program and treatment characteristics are predictors of changes in problem severity in youth clients?

Methods

The study sample included all 1,136 clients that entered and completed services at a community-based mental health center in the Midwest from 2005-2007. The sample was more highly populated by male (59%, $n = 670$) than female (41%, $n = 466$) clients. Approximately

72% of these clients identified as White ($n = 816$), and 18.8% as African American ($n = 213$). Client age ranged from as young as 6 years of age to 21 years ($M = 12.8$, $sd = 3.8$ yrs) with the largest number of clients between the ages of 13 to 16 years of age (36.8%). The majority of the sample presented with a primary diagnosis that was behaviorally based including disruptive disorders (38.7%, $n = 440$) and adjustment disorders (21.6%, $n = 245$), followed by mood disorders (19.1%, $n = 217$) and anxiety disorders (12.1%, $n = 138$).

Following a detailed assessment at intake, youth and their families were offered a variety of support and clinical services including support services (SS) like case management, medical services and consolation as well as counseling services including group therapy (GT); psychological counseling (PC); and/or adventure therapy (AT). The Ohio Youth Problem Severity Scale was completed by a client's primary worker at intake and discharge to assess change in problem behaviors. This instrument included a clinical cutoff score that distinguished clinically significant dysfunction from normal levels of functioning, as well as a change index identifying clinically significant change in problem severity over time (10 or more) (Jacobson & Truax, 1991; Ogles, Melendez, Davis, & Lunnen, 2000). Clients who decreased 10 or more points and were below the clinical cut-off post treatment were considered clinically "recovered" (Jacobson & Truax, 1991). Paired samples t-tests were conducted comparing pre and post scores across a variety of treatment types including effect sizes. In addition, chi-square analyses were conducted comparing treatment type and likelihood of "recovery" status. ANOVA analyses of change scores were conducted to assess variation in outcome by treatment type, age, gender, race, and primary diagnosis. Finally, a progression of models was fit using OLS multiple regression to explore relationships between predictor variables and outcomes.

Results

Effect sizes for change at discharge were large for clients receiving AT only ($n = 18$, $d = 2.13$), AT and PC ($n = 104$, $d = 2.31$), PC only ($n = 652$, $d = 2.91$) and PC and GT ($n = 53$, $d = 1.98$), and all groups showed clinically significant mean change from intake to discharge. Clients who did not receive any counseling services only other support services (SS) showed a smaller treatment effect ($d = .42$), and mean discharge scores were still in the clinically significant dysfunction range. It is important to note that at intake, clients who participated in AT (with or without PC) had significantly higher levels of problem severity than clients who did not receive AT ($F = 6.63$, $df_b = 4$, $df_w = 1131$, $p < .001$, $eta^2 = .023$), but were functioning as well as clients who received other counseling services at discharge.

Chi-square analyses revealed that participants who engaged in adventure therapy were significantly more likely to be considered "recovered" at the close of treatment than those who did not have AT ($\chi^2 = 297.4$, $df = 8$, $p < .001$, *Cramer's V* = .36). Fifty percent of clients in AT only and 55.8% of clients who had AT and PC recovered compared to 42.4% who had PC only, 43.4% who had PC and GT, and 9.7% who received SS without counseling. Since it was unclear if the significance in this model was due to receiving counseling services or not, an additional chi-square analysis was conducted removing the support services group. This additional analysis was also significant ($\chi^2 = 10.40$, $df = 6$, $p = .03$, *Cramer's V* = .20) supporting the findings that participants in AT groups were significantly more likely to be considered recovered compared to those without an AT component.

ANOVA analyses found that females who participated in AT combined with PC had significantly larger decreases in problem severity compared to those who only received PC ($M_{diff} = 6.0$, $p = .006$) or those who participated in GT combined with PC ($M_{diff} = 8.1$, $p = .01$).

Similarly, African American clients who participated in AT combined with PC had significantly higher mean decreases in problem severity compared to those who participated in GT combined with PC ($M_{diff} = 9.7, p = .03$), suggesting that group work was more effective in the format of AT than in a traditional format.

Regression analysis showed age ($\beta = -.30, p < .01$) to be a predictor of overall change in problem severity, with younger clients more likely to have larger decreases in problem severity than older clients. In addition, length of treatment ($\beta = .21, p < .01$) and white ethnicity ($\beta = 2.2, p < .05$) were significant positive predictors of decreases in problem severity. In terms of counseling services, participation in PC ($\beta = 5.38, p < .001$) as well as participation in AT groups ($\beta = 4.45, p < .05$), were significant predictors of decreases in problem severity as were units of GT ($\beta = -.01, p < .05$), and Units of PC ($\beta = .08, p < .01$), but units of AT was not significantly related to decreases in problem severity.

Discussion

Overall, this study found that participants who engaged in AT in a community-based setting had significant decreases in problem severity which were larger than clients not involved in counseling with an adventure component. While AT has been found to be effective in decreasing problem behaviors in youth in wilderness and residential settings, this is the first study to support these results in a community based sample. In addition, it seems that AT may have had a larger impact on female and African American clients, which is an especially important finding considering females and clients of color are underrepresented in wilderness and adventure therapy research. Finally, in looking at key predictors of decreases in problem severity, it was found that participation in AT and PC were significant predictors of decreases in problem severity, however, length of PC, but not length of AT, was a significant predictor of decreases in problem severity. According to these findings, clients had to participate longer in psychological counseling to increase the likelihood of decreases in problem severity; however, participation in AT was a significant predictor of decreases in problem severity regardless of length of treatment.

Overall, these findings must be interpreted with caution. Since clients were not randomly assigned to treatment groups, but referred by clinicians, it is not possible to know if AT was truly effective for all youth at the program, or that certain youth were drawn to participating in AT. In addition, it is unclear if these changes remained over time. The final limitation in this study is its primary reliance on clinicians as reporters on youths' problem severity. Future research needs to incorporate more than one informant or type of measure as well as matched group designs measuring changes post discharge to increase the confidence in the reliability and validity of these findings. Despite the limitations of this study, the purpose of an exploratory study is to investigate if indeed future research is warranted, and this study has provided an important foundation for future research to build upon. Research in this area is especially important due to the implications that AT may be more cost effective as well more accessible to clients in community settings with low incomes and considering the rising needs for appropriate and effective treatment of youth in a community setting, more research is not only needed, but must be a priority for the field.

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SEER 2012 ABSTRACT

Social Identity and Organizational Culture in Experiential Programming

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Irene K. Fernando, Students Today Leaders Forever

Introduction & Literature Review

Social identity development involves the defining of oneself based on group membership (Tajfel, 1982). These groups may include informal associations based on a common interest (i.e. book clubs) or formal institutions (i.e. workplace, college alumni). When an individual perceives oneness or belonging with an organization, they may define themselves based on their perception of that organization. A college alumnus, for example, may continue to associate with their alma mater because they hold dear the college's values, because they appreciate the culture on campus, or because of its success in academics or athletics. These organizational qualities speak to an alumnus's distinctiveness in the community and tie them to the socially desirable features of the organization (Bartel, 2001).

Social identity may influence one's commitment to an organization, often resulting in more pro-social behaviors (i.e. volunteering) and financial contributions to that organization (Penner, 2002). As such, this concept is especially relevant to non-profit organizations that rely heavily on donations and contributions from individuals. The lack of such identification from employees and constituents may result in disinterest, turnover, and a decrease in service satisfaction (Lee, Ashforth, Walsh, & Mowday, 1992). Thus, it was hypothesized that a higher level of identity with the organization and its stated values would lead to more positive participant satisfaction and programmatic outcomes. Furthermore, individuals may associate with many social groups, resulting in identity overlap. Understanding these areas of overlap helps guide an organization's efforts in marketing and the intentional development of organizational culture. The purpose of this study was to elucidate predictors and correlates of social identity amongst participants of a ten-day voluntourism program conducted by the Students Today Leaders Forever (STLF). A secondary purpose was to determine the impact of social identity on programmatic outcomes and satisfaction.

Method

Online surveys were distributed to all participants ($N = 1078$) one week after the tour. A total of 903 surveys were completed, resulting in a response rate of 84%. The surveys included measures of age ($M = 20$), gender (75% female), and previous experience with the STLF (i.e. trip participation, number of friends involved). Participants were asked to indicate their level of self-identification with seven activities/organizations, including: sports, reading, music, volunteering, religion, and school major (e.g. "Sports are a big part of who I am"),

Identification with STLF's organizational values (OV) was measured with 3 items addressing explicit values (e.g. "How much does the value of 'Unity' overlap with your personal values"; followed by a definition of unity). Organizational culture (OC) was assessed by asking participants how much they identified with typical STLF sayings, expectations, and activities (e.g. the phrase "Share don't compare," or the practice of "camp-like games"; Ravasi & Schultz, 2006). Organizational identity (OI) and commitment were assessed with 9 items adapted from

Mael and Ashforth (1992). Examples of these include: “When someone criticizes the STLF, it feels like a personal insult,” and “I feel emotionally attached to the STLF”. Given the nature of the service activities conducted on this voluntour, participants were also asked to indicate their identification with general community service (CSI) in any context (4 items; e.g. “Other people think that community service is important to me”). Finally, participants completed measures of satisfaction with the tour (4 items; e.g. “This tour met all of my expectations”) and designated STLF developmental outcomes (5 items; e.g. “I have the knowledge and skills to continue to serve in my home community”).

Data were entered into SPSS 17 and analyzed in two ways. First, responses were divided into two groups based on the participants’ level of identification with the STLF. Using the Likert-style format of the surveys, those who “agreed” or “strongly agreed” with most of the identity statements (avg. score > 3) were placed in the “High ID” group ($n = 321$). Those with average scores of three or less were placed in the “Low ID” group ($n = 582$). An independent samples t -test determined differences in these groups. Next, a structural equation model (SEM) was conducted using all participant data. OC, OV, and CSI were specific to influence OI, program outcomes and participant satisfaction. OI, in turn, was also specified to influence outcomes and satisfaction. The model was tested in an exploratory manner, removing individual non-significant paths until achieving the strongest model.

Results

All constructs demonstrated acceptable reliability ($\alpha > .70$) and construct validity (i.e. confirmatory factor analysis). Independent t -tests indicated that the high and low identity groups did not differ in age or gender (see Table 1). Significant differences did exist in other variables, even with appropriate Bonferonni adjustments ($p = .004$). Participants in the high ID group identified stronger with OV, CSI, and OI, as well as music participation, reading for leisure, their school major/future career, and moderately so with religion. The High ID group had an average of four to six friends involved with the STLF (compared with two friends in the low ID group) and the majority had attended a tour previously.

Table 1. *Independent t-test for Differences in High ID and Low ID Groups.*

		t	Sig. (2-tailed)
Demographics	Age	-0.985	0.325
	Gender	-0.904	0.366
OV, CSI, OI	Organizational Values	-12.868	0.000
	Community Service Identity	-11.795	0.000
	Organizational Identity	-4.840	0.000
Experience	Previous STLF Experience	-7.469	0.000
	Number of STLF friends	-8.119	0.000
Other identities	Fine Art	0.695	0.488
	Sport	-0.725	0.468
	Reading	-3.176	0.002
	Music	-7.505	0.000
	Service	-1.021	0.308
	Religion	-2.554	0.011
	School Major	-6.438	0.000

The SEM analysis (Figure 1) resulted in a strong fit for the model ($X^2 = 1.051/ 3df, p = .789, NFI = .99, RMSEA < .001$). Forty-one percent of the variance in tour satisfaction was accounted for by: OI, OC, and CSI. Nearly half (45%) of the variance in outcomes was accounted for by CSI, OV, and OI. A total of 45% of OI was accounted for by OV, OC, and CSI. All predictors were significant at a level of $p < .01$.

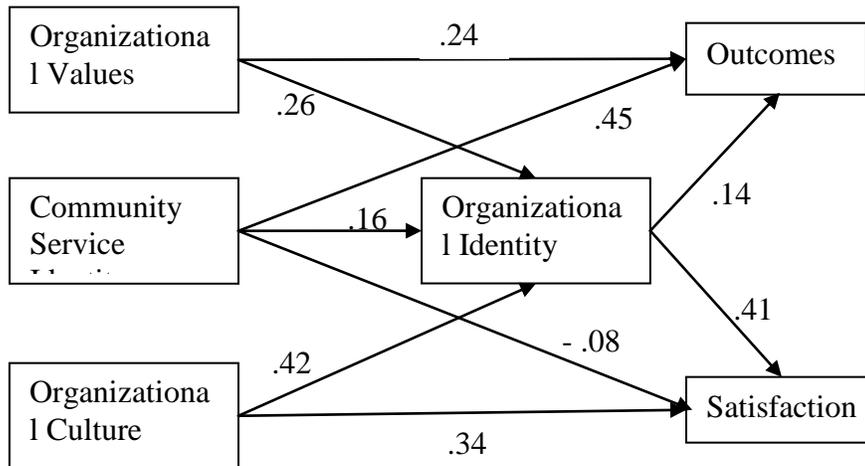


Figure 1. Results of Reduced SEM.

Conclusions and Implications

An organization's image may determine the desired level of association and commitment granted by its employees and clients. Given that commitment is one aspect of organizational identity, programmers ignore this factor at their own peril. The STLFF, for example, would be advised to market to musical, literary, religious, career-oriented individuals, as they tend to resonate strongly with STLFF values and community service. In addition, they should recognize that the most committed participants are repeat customers with multiple friends in the organization. The fact that tour satisfaction was most influenced by OI indicates that participant commitment and investment may lead to higher satisfaction. That CSI negatively influenced satisfaction may speak to unique expectations of those who volunteer in some way on a regular basis. OI was strongly influenced by OV and OC. As such, STLFF should not only emphasize their published values, but they should also be attentive to the culture (i.e. the sayings and expectations) that is cultivated throughout the tour. Those who appreciate this culture report more commitment to and satisfaction with the tour. Regular volunteerism and identification with the STLFF and its values have a strong impact on the developmental outcomes associated with the tour. Granted, the outcomes were only assessed post-trip, raising questions about the validity of the measures. However, the fact that satisfaction and outcomes were uncorrelated in this study identifies them as discrete variables. In sum, social identity and other service experience impact the outcomes of and satisfaction with this volunteering. In-depth knowledge of this self-selected clientele will enable this volunteer-run organization to thrive for years to come.

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SEER 2012 ABSTRACT

Utilizing Reflective Journaling as a Gateway to Understanding Sense of Community: A Unique Triangulated Research Approach

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Review of Literature

The literature repeatedly encourages researchers to examine the various mechanisms and factors that produce and influence group experiences in outdoor experiential programs (Ewert & McAvoy, 2000; McAvoy, Mitten, Stringer, Steckart, & Sproles, 1996). One such factor is the development of sense of community during outdoor education curricula within a variety of contexts (Austin, Martin, Yoshino, Schanning, Ogle, & Mittelstaedt, 2010; Breunig, O'Connell, Todd, Anderson, & Young, 2010; Lyons, 2003). Sense of community has been characterized as the “feeling an individual has about belonging to a group and involves the strength of the attachment people feel for their communities or group” (Halamova, 2001, p. 137).

Outdoor experiential programs provide excellent opportunities to examine the sense of community construct, and the use of reflective journaling has shown promise in giving structure to the various constraints and facilitators of community formation (Hutson, Breunig, Anderson, Todd, O'Connell, & Young, 2012). Furthermore, reflective journaling has been shown to be an effective learning tool for university students in experience-based expedition style courses (Dyment & O'Connell, 2011; O'Connell & Dyment, 2011). The quality and depth of reflections, however, are often mitigated by the presence or lack of clear expectations, training, assessments, and relationships with instructors (Dyment & O'Connell, 2010).

Reflective journals are defined as “... written documents that students create as they think about various concepts, events, or interactions over a period of time for the purposes of gaining insights into self-awareness and learning” (Thorpe, 2004, p. 328) and have often been utilized in a number of disciplines as both a pedagogical and research tool (O'Connell & Dyment, 2011). There are several benefits of reflective journaling, which lend them to the dual use described above. Journals can encourage students to mark a starting point for themselves during a learning experience by providing space to record basic observations of fact, context, and community (Fulwiler, 1987). Journals can help position the student as an influential part of the experiential learning cycle by placing his or her experience at the forefront of the learning process (Mills, 2008). Similarly, students can become more engaged in learning, as they are able to control the depth, breadth and direction of what they write. Reflective journals also foster metacognition and may include “thinking about learning” or “thinking about professional process” (O'Connell & Dyment, 2011). Hubbs and Brand (2005) suggested that reflective journals serve as a “paper mirror” providing a replay of the writer’s experience, him or herself, and others. Additionally, reflective journals offer an outlet for creative self-expression (Hiemstra, 2001).

Because reflective journals provide students with these benefits, it is plausible to surmise that the entries, when considered as “data,” are relatively accurate descriptions of students’

perceptions and experiences. In this regard, reflective journals make an excellent information source, particularly when structured by the researcher to assist the student in personalized expression. In this study, journals were used to complement questionnaire data which measured sense of community based on McMillan and Chavis' (1986) theoretical framework of four core factors: membership/group cohesiveness, influence, integration and fulfillment of needs, and shared emotional connection.

The purpose of the study is to capture and characterize the process of building a sense of community as experienced by outdoor pursuits trip groups over a 6-day period, using a unique triangulated approach that gathered qualitative and quantitative data over multiple points in time from multiple sources (i.e., students and instructors, questionnaires and journals). In particular, this paper highlights the intentional use of student and instructor reflective journals as research and pedagogical tools.

Methods

This study employed a mixed-methods approach to data collection, involving 43 students and seven staff. Students were undergraduates from a 4-year comprehensive university enrolled in a 13-day outdoor education practicum during spring of 2011. Participants spent five days in a residential outdoor education setting, six days on a wilderness canoe trip, and two days back in the residential camp. Students were assigned to one of 7 trip groups designed to be as equivalent as possible in terms of balancing gender and mixing personalities, experience, and skill levels. Best friends were intentionally separated; initially, groups were composed of acquaintances.

Both questionnaires and journals were used for data collection. First, students rated their trip group's sense of community via surveys using Long & Perkins' (2003) 8-item Brief Sense of Community Index rated on a 5-point scale (1=not at all true to 5=completely true). Using a pre-test/post-test design, surveys were administered to students on Day 4 when trip groups were first assigned, and again on Day 12, which marked their return to base camp after the canoe trips.

Second, a unique combination of journaling methodologies was utilized to gather qualitative and quantitative data from both students and instructors during the 6-day wilderness portion of the experience. Data from the 43 students were collected via specially crafted individual journals. The first two pages of each booklet highlighted creative journal writing techniques, which were introduced orally with the students; reminders and specific prompts were also provided in the top and bottom margins of each page (e.g., "What did you do today? What is something noteworthy that happened to you? Is there anything you saw or learned today that affected the way you felt about yourself, others, the Adirondacks, or the natural world?") In addition to these qualitative long entries, students rated the extent of change in their trip group's sense of community each day by providing quantitative ratings on an 11-point scale in response to the following statement: "Compared to yesterday, today I would rate our trip group's sense of community as having undergone a....," where -5=huge negative change, 0=no change, and +5=huge positive change. Students then followed up with qualitative responses to the following open-ended statement: "I would say this change (or lack of change) was primarily due to...." Although journaling was extrinsically motivated (i.e., students submitted the documents as part of their course grades), participants could be as candid as comfort levels allowed, with the option to place "don't read this" in the margins.

Trip group leaders also kept logs. Since these staff members had much more experience in outdoor pursuits environments and endeavors, their data were meant to act as more objective yardsticks of conditions and experiences. Besides supplying notes and daily itineraries, leaders

provided index ratings for eight factors that might prominently influence the process of building sense of community in the Adirondack environment in late May/early June: bugs, weather, wind, water route, hiking route, portage, campsite, and outhouse. Each factor was rated on a 10-point scale from 1 (“the worst/most difficult conditions I’ve ever experienced”) to 10 (“the best/easiest conditions I’ve ever experienced”). Half of the student journals also included these index ratings to facilitate comparison of student perceptions with staff ratings.

Results

Based on dependent t-test results of survey data, overall sense of community increased significantly from Day 4 (mean = 3.98) to Day 12 (mean = 4.52) ($t = 5.255, p < .01$). However, these results varied by trip group: only three of the seven groups’ scores increased significantly over time. Detailed analyses of journal ratings of daily change in sense of community showed 161 of 184 entries (87%) posted a daily positive change, 14 entries (8%) cited no change, and just 9 entries (5%) rated negative change. Qualitative data analysis of reasons for these changes resulted in the following major theme codes: overall daily evaluation; out-group effects; challenge; bonding; group process; and skills, tasks and roles. Sub-themes under each major theme subtly changed over the five days of the trip. For example, under “bonding,” sub-themes evolved from “getting to know each other” on the first day to “getting used to each other” on the second, “bonding, coming together, growing as a group” on the third, “being a tight-knit group” on the fourth, and “being comfortable with each other” by the fifth. Cumulative gains in daily change in sense of community also increased over time, but the pattern of change varied dramatically by group. Although the extent of one group's gains was consistent over time, the other six groups displayed relatively large or small gains on specific days. Examination of the detailed ratings, reasons for change, and corresponding qualitative long entries revealed a richly detailed picture of the trip group process, including factors that enhance and detract from building sense of community. Students in the same trip group often gave different interpretations of the same events; e.g., some reacted to challenge negatively while others recognized how challenging situations brought the group closer together. Finally, when comparing staff and student ratings of factors that might influence community building, students tended to overestimate the difficulty of conditions (i.e., bugs, weather, wind, water and hiking routes, and campsite and outhouse conditions). These ratings also corresponded to changes in sense of community daily ratings and reasons.

Discussion

First, based on the results of this study, sense of community increases and varies by group. Second, while cumulative gains in sense of community occur, patterns vary by group, and perceptions vary within groups. Third, ratings of daily factor indices correspond to changes in sense of community changes and causes, and students consistently rate factors as being worse or more difficult than staff do.

Although sense of community increased over time in these trip groups, this triangulated research design produced findings which indicate that the daily pattern of change is influenced by many factors. While structured journaling can help students effectively process their experiences, perceptions of shared experiences tend to vary widely. Reflective journaling captures how, in the words of Shafer (1969), “the average camper ... doesn’t exist” (p. 1) while also giving structure to individual perspectives of the trip group experience. By deepening their understanding of some of the factors found in this study, which function as both constraints and

potential facilitators, outdoor educators may be in a better position to intentionally build sense of community during outdoor experiential programs. In particular, reflective journaling may continue to be helpful to this process from both a research and pedagogical perspective.

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SEER 2012 ABSTRACT

Energy Needs on Backcountry Expeditions

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Review of Literature

Nutrition in sports has received tremendous research attention in both a broad and sport-specific context. The recommendations coming out of the research typically address the questions of what to eat, how much to eat, and when to eat in relation to physical activity (Bernadot, 2012). While there is a certain amount of overlap for backcountry activities such as backpacking, rock climbing, and skiing, the majority of this research does not address food weight, storage, and ease of cooking. Research specific to backcountry expeditions tends to focus on high altitude expeditions or short-duration climbs of large peaks (Appukutty, 2005). Missing from the field is an understanding of nutrition needs and adaptations for the recreationalist spending extended time in a backcountry environment.

Methods

Study A

In 2010-2011, the National Outdoor Leadership School (NOLS) undertook a study of five backcountry-based courses to measure energy expenditure, morphological changes, physiological fitness changes, and caloric intake. Energy expenditure was measured independently as energy spent on activities, basal metabolic rate, and energy spent on thermoregulation. Activities specifically measured included backpacking at mid-altitude, rock climbing, backcountry rock climbing at mid-altitude, and winter camping with ski travel. Environments included temperate control environments and extreme heat or cold.

A total of 49 students in good health completed the study with an age range of 18-44. The pilot study included an instructor training course while the four courses that were part of the main study were semester-long courses. Weight, percent body fat, and muscle mass were collected from each subject before, during, and after the NOLS course using a Tanita BC-558 Ironman Segmental Body Composition Monitor bioelectrical impedance scale. Six or more of the subjects (at least 3 females and 3 males) took part in the energy balance assessment portions of this study for each course. Daily energy expenditure (DEE), or daily metabolic rate, was determined using both flex-heart rate (Leonard, 2003) and doubly labeled water methods (DLW) (Snodgrass et al., 2006). Resting metabolic rate (RMR) and calibrations for the flex-heart rate method were carried out using the Cosmed K4b portable calorimetry device following Gayda et al. (2010) both before and after the course. A daily activity log was kept by the course leader in order to overlay the calorie expenditure with the activity type. Subjects wore ActiTrainer heart rate monitors with data logging capabilities (average heart rate collected every 60 seconds and 3 axis motion data) for six days to collect data in each activity and environment from which metabolic rates could be determined.

The NOLS students also kept in-depth food diaries to measure caloric intake during this period. The DLW method was used with one to three subjects in each group to validate the

results of the heart rate monitors. DLW doses were ingested, and subjects provided urine samples every other day. These samples were analyzed using an isotope ratio mass spectrometer, which measured the ratio of DLW to regular water. The decline in the concentration of DLW is a measure of the metabolic rate and provides highly accurate data. Weights, fat percentages, muscle masses, and resting metabolic rates (RMR) from before and after the course were compared using Student's t-tests. Caloric intake and output were also compared using Student's t-tests. Subjects were analyzed together and then females and males were analyzed separately.

Study B

During the summer of 2012, NOLS used a U.S. Naval Academy course to study physical and physiological responses during a 24-day wilderness backpacking course.

In partnership with the Naval Academy and Clinical & Sports Consulting Services, this course was chosen for a study measuring the ability for midshipmen to develop mental resilience and stress tolerance through summer trainings. The project was funded by the US Naval Center for Combat and Operational Stress Control. While the desired outcomes of the study do not relate specifically to nutrition, the data set is very much related to understanding energy expenditure in the backcountry.

Of greatest interest are the results obtained from course members wearing the Enhanced BodyMedia SenseWear System. This armband was worn by eight Naval Academy Midshipmen and one NOLS instructor on a 24-day wilderness course. The armband collects data at a rate of 32 times/second from the following sensors: heat flux, Galvanic Skin response, three-axis accelerometer, and skin temperature. These measures will help us better understand energy expenditure.

In addition, this course was used as a follow up to the semester energetics study. The Navy course was measured on the Tanita BC-558 Ironman Segmental Body Composition Monitor bioelectrical impedance scale before and after the course. The course was also rationed protein powder to test its practical use and appeal in the wilderness setting. While no formal measurements were taken, one instructor took base-level observations of how the protein powder was used and who used it.

Results

Study A

Final analysis of results is still underway for the main study and will be presented at SEER.

In the pilot study all instructor course students experienced a loss in body mass; post-course body masses were significantly lower than pre-course body masses (Student's t-test, $p < 0.001$). Subjects lost an average of 5.4% of their total body mass, with males losing a greater percentage (6.3%) than females (4.5%). Subjects on a whole lost a significant amount of body fat (Student's t-test, $p = 0.04$), with a 5.4% average loss. Separately, females lost a significant portion of their body fat, but males did not (Student's t-test, $p = 0.03$ and $p = 0.8$ respectively). Overall, there was no significant difference between muscle mass before and after the course. Analyzed separately, however, only males exhibited a significant change in muscle mass (Student's t-test, $p = 0.01$). They lost an average of 5.9% of their muscle mass during the course. The six subjects taking part in the energy assessment portion of this study experienced a significant change in resting metabolic rate with post-course RMR being significantly higher than pre-course RMR (Student's t-test, $p = 0.01$). This is a general sign of increased cardiovascular capacity.

The pilot study revealed that students were expending significantly more energy than they were consuming (Student's t-test, $p < 0.001$). Total energy expenditure ranged from 2441- 7739

kcal/day with an average of 4341 kcal/day during the six day study period. Total caloric intake ranged from 1755-5138 kcal/day with an average of 3297 kcal/day. During this study period, subjects experienced an average caloric deficit of 1044 kcal/day. The main study showed that semester students had an energy deficit during hiking sections and an energy surplus during their stationary climbing camps. Data gathered in summer and fall, 2011 will be presented that shows changes in body composition over the entire 75-day semesters and the energy balance of different activities and environments.

Study B

On the course students lost an average of 4.4 lbs of fat and 4.6 lbs of muscle. While the majority of the protein was consumed in the field, several lbs of unused protein returned with the students.

Discussion

Pilot data and preliminary data from Study A show that all students increase cardiovascular fitness while attending NOLS. However, the energy deficit on hiking activities and energy surplus on stationary activities shows that food-intake has room for improvement. This data also shows that existing models for humans in these types of activities (Leonard et al., 1997) are off by as much as 30%, especially for specific individuals who are extremely active and can expend 7,000-8,000 Kcal/day.

Nutrition on backcountry expeditions has barriers beyond simple logistics. Proper nutrition includes ration planning, nutrition education, cooking education, adequate supervision, and an atmosphere that promotes healthy lifestyles. The identified dietary deficiencies suggest that some students may need more protein in their diets during the most rigorous activities.

This presentation will unveil the results of both studies and conclusions drawn from the projects. Time will also be spent discussing practical solutions to better address the relationship between energy expenditure and backcountry nutrition.

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SEER 2012 ABSTRACT

An Evaluation of the Student Conservation Association's Community Program

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Introduction

The Student Conservation Association (SCA) is a charitable, non-profit community of people committed to developing conservation leaders by providing college and high school-aged students with experiential conservation service opportunities in various conservation-related fields, including restoration ecology, environmental education, natural resource management, and urban tree initiatives (SCA, 2012). The Community Program (CP), one of the many programmatic offerings of SCA, provides year-round training and service opportunities that focus on engaging diverse high school students in conservation efforts in local parks and communities in major U.S. cities who may lack access to the natural environment and green job opportunities. The SCA currently operates Community Programs in Baltimore, Boston, Chicago, Dallas, Detroit, Houston, Jacksonville, Milwaukee, Philadelphia, Pittsburgh, the San Francisco Bay Area, Seattle, Stamford, and Washington, DC.

The study reports the results of the first-ever outcome evaluation of the SCA Community Program in its ability to realize core objectives of the program. The purpose of this qualitative evaluation was to survey current alumni of the Community Programs to examine the relative effects of the program on environmental awareness, and appreciation, knowledge acquisition, and core constructs associated with perceived self competence. To accomplish this, a survey employing a semi-structured interview process of SCA alumni in the greater Pittsburgh area was conducted from January to March of 2012.

Review of Literature

The primary objectives of the CP are to realize the following outcomes through participation in the 7-week program: a) an environmental awareness and conservation ethic; b) self competence and social skills; c) green career exploration, awareness, aspirations, and planning; and d) civic engagement and awareness of systems, organizations and programs engaged in conservation work. The development of environmental awareness has received considerable attention in the youth development literature especially when juxtaposed to the alarming rise in technology use reported in several studies (Weinstein & Lejoyeux, 2010). Research has primarily focused on how programs and experiences can enhance youth's connection with nature, foster a desire to engage in environmental stewardship, and facilitate an interest in continuing nature-based learning and discovery (e.g., Bunting & Cousins, 1983; Dunlap & Van Liere, 1978; Evans et al., 2007; Leeming, Dwyer, & Bracken, 1995; Musser & Malkus, 1994). This research served as a theoretical frame in the development of open-ended questions asking respondents to think about how the program affected their perceptions of their natural surroundings. Self-determination theory (SDT) was utilized as a framework to explore potential outcomes associated with self-competence (Ryan & Deci, 2000). SDT articulates a meta-theory that explores intrinsic and extrinsic sources of motivation in cognitive and social development. SDT also focuses on how social and cultural factors facilitate or undermine an individual's sense of volition and initiative, in addition to their well-being and the quality of their

performance. Conditions supporting the individual's experience of autonomy, competence, and relatedness are argued to foster the most volitional and high quality forms of motivation and engagement for activities, including enhanced performance, persistence, and creativity (Ryan & Deci, 2000).

Methods

A 14-item questionnaire was developed with involvement of stakeholders to directly assess the four objectives of the CP listed above. The questions asked in the interview were: (a) How are you currently doing? Are you going to school? Working? (b) What level of education have you completed? High school? GED? College? (c) Do you participate in any outdoor recreational or environmental activities? (d) What do you remember about the SCA Community Program? (e) What did you like best about the program? (f) What did you like least about the program? Why? (g) What do you think were the most important things you learned about yourself as a result of the program? (h) What about the program helped you learn these things? (i) What do you think were the most important things you learned about the natural environment as a result of participating in the program? (j) Do you remember specific things you did in the program that helped you learn these things? (k) Do you practice conservation at home or in your community? (l) Do you volunteer in your community? (m) Are you currently involved in any conservation efforts in your community? (n) What future goals have you set for yourself? How confident do you feel that you can achieve those goals? Why? (o) Is there anything else that you would like to share with us?

After pilot-testing the instrument with 10 alumni of the program, an SCA graduate student intern was trained on the questionnaire and survey and was directed to follow the prompts of the interview guide as consistently and systematically as possible. A total of 1052 SCA alumni names were obtained through a database that tracked previous participants of the program and constituted the sampling frame used for the study. A total of 370 "bad numbers" were identified, 436 students were unreachable after multiple attempts, and 21 alumni were contacted and refused to be interviewed, either because they were too busy or simply could not arrange a time to complete the interview. A total of 81 alumni were contacted, agreed to be interviewed, and were asked for consent either directly or with their parents if they were a minor. All interviews were recorded and each interview took about 10-15 minutes each depending on the respondent.

To identify constructs associated with each interview theme, a constant comparative method was used (Glaser & Strauss, 1967). The data also serves as an initial indicator of program impact on alumni, as they are asked to reflect back on their experience in SCA, and recall specific things they learned, and what aspects of the program were most influential. All of the recorded interviews were first transcribed verbatim from the audio files. A total of 81 interviews were transcribed. Each interview was analyzed according to each question asked and linked back to the specific student. Data analysis began by conducting initial reviews of each interview, where notes were written in the margins of transcriptions and a reflective notebook was maintained. To identify constructs associated with each interview theme a constant comparative method was used (Glaser, 1992). Data were stored and analyzed using Excel, where the responses from each student could be linked across workbooks to look for intersections. This allowed for: (a) searching for themes, (b) diagramming, and (c) analyzing and reporting the data in meaningful ways (Creswell, 1998). Open and pattern coding of data was driven by interview questions (Miles & Huberman, 1994). By this process, the "building blocks" of analysis were

variables and their relationships, rather than the individual interviews (Miles & Huberman, 1994). The goal of this approach was to develop more sophisticated descriptions and, thus, more powerful descriptions of well-being, the meaning of SCA to each individual, specific knowledge and concepts learned, and future goals and aspirations of SCA alumni. Various search techniques were used to identify common patterns across these descriptions.

Results

The 81 respondents were on average 17.9 years of age at the time of the interview, and had participated in their SCA experience on average 24.1 months prior to the interview. The sample consisted of 42.1% of alumni who identified as African American, 21.2% as Caucasian, and 3.6% as mixed race or other (30.4% did not answer the question). The sample was evenly split between males ($n = 41$; 50.2%) and females ($n = 40$; 49.8%).

When alumni were asked what they remembered about their experience, their responses were coded into nine distinct themes or categories. This is an important question in the study because it was an open-ended question that asked them to reflect, for the first time in years, about the program. Thus, responses that emerged from this question are considered to be potentially the most salient aspects of the program for alumni. The nine themes presented in order, from most to least referenced by respondents, were: (a) Conservation Work ($n = 49$ references), (b) Teamwork/Meeting People ($n = 24$ references), (c) Fun Positive Experience ($n = 24$ references), (d) Transformative Experience ($n = 16$ references), (e) Environmental Education ($n = 15$ references), (f) Help Community Environment ($n = 13$ references), (g) Travel ($n = 11$), (h) Adventure Camping ($n = 4$ references), and (i) Job Skills ($n = 4$ references). These themes represent broad programmatic elements that alumni facilitated learning about themselves and the environment.

Results also showed that alumni learned important lessons about themselves, including their ability to work in groups of diverse individuals towards a common goal ($n = 39/81$; 48.0%), felt a sense of accomplishment when overcoming adversity and challenge ($n = 38/81$ students; 46.9%), and each respondent reflected on a discovered appreciation and awareness for nature. Outcomes were also linked to programmatic factors, including conservation work in urban environments that benefitted the communities from which the participants lived. Self-determination theory appears to be a suitable framework for exploring how the program characteristics inherent in the CP facilitate a sense of autonomy, competence, and relatedness in participants, which were linked to motivation, and engagement in positive activities for CP participants post-program. The study results supported the mission and goals of SCA and served as a framework to support the development of a quantitative instrument focusing on the above program outcomes and associated youth development constructs grounded in the literature.

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SEER 2012 ABSTRACT

VALIDATING, NORMING, & UTILITY OF A YOUTH OUTCOMES BATTERY FOR OUTDOOR PROGRAMS AND CAMPS

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Introduction

Accountability and evidence remain central to many evaluation efforts as outdoor programs for youth seek to validate their efforts. This culture of accountability has pervaded many aspects of experiential outdoor programs for youth, especially areas targeting academic outcomes, seeking grant funding, or needing to compete with alternative programs for participants and resources. In a direct response to this need, the American Camp Association (ACA) conducted a multi-year study and, in 2005 published the report “Youth Development Outcomes of the Camp Experience.” That study was unprecedented in its size and scope, involving more than 5000 youth and their families from across the country. Despite the significance of this groundbreaking study, effect sizes were relatively small and the scale had several key limitations that necessitated additional work, which provided the genesis of the current Youth Outcomes Battery (YOB). Currently in its second printing, the YOB is a battery of self-report instruments that can be easily administered to youth 10-17 years old, scored, and used by youth program professionals seeking an evidence-based outcome evaluation.

As the YOB was being developed, special attention was given to measuring outcomes that were included as part of the original study, that might potentially be influenced by outdoor programming, and that were needed by practitioners involved in programming for positive youth development. While an expansive literature review on the included outcomes is beyond the scope of this abstract, interested readers may refer to the reports and articles on portions of the YOB (e.g., ACA, 2011; Eastep et al., 2011; Ellis et al., 2007; Sibthorp et al., 2010). The current version of the YOB has 11 subscales: Friendship Skills (FS), Family Citizenship Behavior (FCB), Responsibility (RESP), Independence (IND), Teamwork Skills (TW), Perceived Competence (COMP), Affinity for Exploration (AE) Problem Solving Confidence (PS), Affinity for Nature (AN), Camp Connectedness (CC), and Spiritual Wellbeing (SWB).

The purpose of this current study was to establish norms and provide further evidence of the construct validity for the YOB. Thus, youth attending summer camps during the summers of 2010 and 2011 were invited to participate in this study.

Methods

Given previous differences between resident and day camps, 44 day camps and 44 resident camps were randomly selected from all ACA accredited not-for-profit camps. Each camp was asked to provide a minimum of 100 completed questionnaire packets. Given that 11 camper outcomes were contained in the YOB, the camps were systematically assigned to one of two possible packets of outcome instruments. Packet A included the six shorter outcomes: FCB, COMP, RESP, IND, TW, PS. Packet B included the remaining four outcomes: AE, AN, CC, FS, and SWB. For ten of the outcomes, items measure change only and were scored on a five point

rating scale. Camp connectedness, which does not exist prior to a camp experience, was measured on a 6-point status scale ranging from “false” (1) to “true” (6).

Descriptive statistics were run for the norming analysis, segmented by camp type. Convergent and discriminant validity were assessed using established criteria (Fornell & Larker, 1981) through the use of confirmatory factor analysis (CFA), where the subscales were treated as correlated latent constructs. As the packet A outcomes were collected from different youth than the packet B outcomes, two separate CFAs were conducted.

Results

Packet A Outcomes

A total of 1993 youth from 22 different camps completed the six subscales of the YOB included in Packet A. Thirteen of these camps were resident camps. Six camps were day camps. Three camps included both day and resident participants. The youth in this sample were 69% female and averaged 11.9 years of age. They reported attending this camp, on average, 1.5 weeks/year; 49% of the sample self-reported an ethnicity other than Caucasian.

Most of the means were between 3 and 3.5 on the scale of 1-5. Day camps have slightly lower means than resident camps. The distributions are approximately normal, and thus meet the assumption of normality necessary for parametric inferential statistical analyses.

CFA results for Packet A Outcomes

The initial model tested included the six packet A outcomes as correlated latent constructs each indicated with between 6 and 8 items. Without additional modification the model fit adequately (RMR = .03, GFI = .90, CFI = .95, RMSEA = .045) and all the standardized loadings were above .65. The correlations between the subscales ranged from a low of .70 (FCB and IND) to a high of .87 (COMP and RESP) and indicate that the outcomes may not be distinct.

Packet B Outcomes

A total of 1757 youth from 17 different camps completed the subscales of the YOB included in Packet B. Ten of these camps were resident camps. Two camps were day camps. Five camps included both day and resident participants. The youth in this sample were 66% female and averaged 12.1 years of age. They reported attending this camp, on average, 1.6 weeks/year; 49% of the sample self-reported an ethnicity other than Caucasian.

The means on AE, AN, FS, and SWB are all over 3.7 on the scale of 1-5. The distributions for AE, AN, FS, and SWB are approximately normal, and thus meet the assumption of normality necessary for parametric inferential statistical analyses. Camp Connectedness scores were also high, with a mean of approximately 5.2 out of 6.

CFA results for Packet B Outcomes

The initial model tested included the five packet B outcomes as correlated latent constructs each indicated with between 6 and 14 items. The initial model fit was only fair, thus we decided to allow some of the error terms for items within the same subscale to correlate, as suggested by the modification indices. This improved model fit without conceptually changing the model (RMR = .09, GFI = .83, CFI = .94, RMSEA = .049) and all the standardized loadings were above .53, with most in the .7 and .8 range. The correlations between the subscales ranged from a low of .13 (CC and SWB) to a high of .83 (FS and AE) and indicate that this group of outcomes (packet B) were likely more distinct than those in packet A. However, some overlap is still evident. Both packet A and packet B outcomes largely met the criteria for convergent and discriminant validity (Fornell & Larker) and produced reliable estimates of the constructs.

Discussion

The YOB is a customizable and easy to use outcome assessment tool specifically designed for youth outdoor programs. It can be tailored to the program's intended purpose and can help with accountability, program improvement, marketing, and funding. The results of this study largely support the reliability and content, convergent, and discriminant validity of the subscales. The YOB is now one of the few assessment options with normative data and a track record of sustained use, adaptation, and translation. Recently the YOB was acknowledged as a promising tool for youth program assessment by the Forum for Youth Investment (2011) in *From Soft Skills to Hard Data: Measuring Youth Program Outcomes*. Furthermore, ACA has worked to make the tools highly useable and supports analysis templates and web-based support.

Despite its merits, the YOB also has its limitations. Development through camp programs may limit its application to other youth serving agencies. Its focus on simplicity and utility mean it is, perhaps, not as sensitive as other measurement options. Many of the subscales remain correlated, indicating that there may be another, yet untapped, construct influencing the scores. Lastly, its use with children 10+ years old leaves a large segment of youth out of a comprehensive evaluation strategy. However, the YOB offers a component to a quality program improvement process that supplies youth outcome data that augments staff training, intentionality, and effectiveness of the overall program.

Questions about this study can be directed to Dr. Jim Sibthorp at jim.sibthorp@health.utah.edu

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SEER 2012 ABSTRACT

Evaluating the Impact of Outdoor Orientation on Incoming Students' Perceptions of Social Norms about Alcohol Use on Campus

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Introduction & Review of Literature

Outdoor orientation programs assist students in gaining familiarity with the college environment (Bell, Holmes, & Williams, 2010). Specifically, Gass described one goal of outdoor orientation programs as increasing the “compatibility between student expectations and university actualities” (1986, p. 57). Bell and Williams (2006) found participants in outdoor orientation programs were often more concerned with social adjustment than academic adjustment. One aspect of social adjustment in which many incoming students do not experience compatibility between their expectations and reality is alcohol use. By addressing issues related to alcohol use during outdoor orientation programming, programs can better achieve their goal of helping students make a successful transition from high school to college.

Educating incoming students about responsible alcohol use and alcohol use norms is not the only reason why outdoor orientation programs should consider adding these topics to their curricula. Gass suggested outdoor orientation programs should be “evaluated in the same manner as traditional orientation programs” and must also adopt many of the same goals to be equally valued (1987, p. 30). Almost 25 years later, Bell & Vaillancourt (2011) found outdoor orientation programs that were isolated from the broader campus community were subject to discontinuation. Since educating incoming students about responsible alcohol use is of primary concern to most colleges and universities, incorporating this theme into outdoor orientation programs should be seen as a way to make these programs more relevant in the broader context of higher education.

Alcohol use by undergraduate students is a serious issue linked with numerous consequences such as lower academic performance and more frequent trouble with authority (Perkins & Berkowitz, 1986). Baer (2002) described numerous studies linking perceptions of peer alcohol use with heavy drinking. The social norms approach seeks to reduce students' misperceptions about alcohol norms on campus. Social norms interventions have been shown to reduce both misperceptions as well as actual consumption of alcohol (Schroeder & Prentice, 1998). Wardwell (1999) found that outdoor orientation helped to correct participants' misperceptions of other students' “desire to party.” The current study investigated the effects of outdoor orientation on students' perceptions of alcohol use on campus. To achieve this goal, three research questions were examined: (a) What effect did outdoor orientation have on incoming students, and was specific social norms leader training beneficial, (b) What effect did on-campus orientation have, and (c) Was there an interaction between outdoor and traditional on-campus orientation?

Method

This study used a quasi-experimental, repeated measures, non-equivalent groups design. Within this design, a two-group randomized design assessed the impact of leader training. A total of three groups were measured across three times (before outdoor orientation, before on-campus orientation, and after on-campus orientation). Trip groups were randomly assigned to either the

OOP or OOP+SN condition (OOP – standard outdoor orientation, OOP+SN – outdoor orientation with social norms training, NPO – did not participate in any pre-orientation program).

All three groups participated in a standard on-campus college orientation. Two of the groups (OOP and OOP+SN) participated in an eight-day outdoor orientation program. The student leaders of the OOP+SN trips received additional social norms training which consisted of a three hour program focused on educating them about social norms, alcohol use, and providing them with tools to have productive and unbiased conversations about alcohol use on campus. Attrition prevented the use of time-series analysis across all three sample times, therefore, matched pairs were used to examine changes between two times for each question. Sample sizes for each question are listed below.

	OOP+SN		R	O ₁	X ₁₊	O ₂	X ₂	O ₃
		N		O ₁	X ₁	O ₂	X ₂	O ₃
	OOP		R					
		N				O ₂	X ₂	O ₃
	NPO							

O ₁ – first day of outdoor orientation	X ₁₊ – outdoor orientation with social norms training
O ₂ – first day of orientation	X ₁ – outdoor orientation
O ₃ – last day of orientation	X ₂ – on-campus orientation

	OOP	OOP+SN	NPO
Question 1	93	85	n/a
Question 2	50	49	84
Question 3	46	46	84

Students were assessed on their use and approval of alcohol as well as their perceptions of peers’ use and approval. Alcohol use was measured as: quantity (i.e. number of drinks) and frequency (i.e. how often alcohol was consumed). Approval was measured using Lee et al.’s (2007) four-item scale that assessed approval of drinking frequency and drinking related behaviors.

Results

Question one assessed the impact of participation in the outdoor orientation program and the social norms training for program leaders. Students in the OOP group reported increases in own frequency and approval of alcohol use as well as perceptions of other students’ quantity and approval (see Table 1). In comparison, students in the OOP+SN group reported no significant increases in the same period of time.

Question two examined the effect of a traditional on-campus orientation program on students’ perceptions of alcohol use. Students in the OOP group again reported a significant increase in own frequency, as did the NPO group (see Table 1). The OOP+SN group did not report any significant increases. Both the OOP+SN group and the NPO group reported decreases in perceptions of other students’ quantity, whereas the OOP group did not decrease significantly. Finally, all three groups reported a decrease in perception of other students’ frequency of alcohol use.

The final research question assessed the effect of the combined orientation experience (outdoor plus on-campus orientation). All three groups reported increases in own frequency of alcohol use. Notably, the increase in the OOP group’s frequency was nearly twice that of the other groups. In addition, only the OOP group reported a significant increase in social approval. The NPO group reported decreases in both perceptions of other students’ quantity and frequency, while the other groups had no significant changes.

Table 1. Mean Alcohol Use and Approval for Questions 1, 2, and 3

Variable	Question 1			Question 2			Question 3		
	Pre Time1	Post Time2	Mean diff	Pre Time2	Post Time3	Mean diff	Pre Time1/2	Post Time3	Mean diff
Own Frequency									
NPO				3.45	3.83	.38**	3.45	3.83	.38**
OOP	2.88	3.22	.34**	3.64	3.93	.29*	3.02	3.79	.77***
OOP+SN	3.44	3.49	.05	3.67	3.91	.24	3.52	3.82	.30**
Own Social Approval									
NPO				2.46	2.52	0.06	2.46	2.52	.06
OOP	2.18	2.39	.21**	2.45	2.58	0.13	2.21	2.47	.26**
OOP+SN	2.38	2.45	.07	2.47	2.59	0.12	2.37	2.54	.17
Other/Student Quantity									
NPO				5.72	4.95	-.77**	5.72	4.95	-.77**
OOP	4.96	5.40	.44**	5.69	5.48	-.21	4.67	5.13	.46
OOP+SN	5.31	5.73	.42	5.96	5.42	-.54*	5.21	5.51	.30
Other/Student Frequency									
NPO				4.90	4.53	-.37**	4.90	4.53	-.37**
OOP	4.96	5.12	.16	5.28	4.94	-.34**	4.89	4.93	.04
OOP+SN	5.08	5.16	.08	5.20	4.82	-.38**	5.00	4.80	-.20
Other/Student Social Approval									
NPO				2.96	3.01	0.05	2.96	3.01	0.05
OOP	2.77	3.07	.30***	3.09	3.12	0.03	2.81	3.02	0.21
OOP+SN	2.92	3.08	.16	3.10	3.06	-0.04	2.89	3.02	0.13

* $p < .05$, ** $p < .01$, *** $p < .001$

Discussion

The results of this study point to several important implications. First, these findings contradict Wardwell (1999) who found that untrained leaders contributed to decreases in participant misperceptions. Rather, this study finds that untrained outdoor orientation program leaders may be “carriers of the misperception” of alcohol use (Perkins, 1997, p. 201). These leaders, regardless of their personal attitudes, may unintentionally support the perception of prevalent alcohol use. This study found that training leaders helped counteract that effect. Hypothetically, a larger “dose” of training may actually help reduce these misperceptions.

Second, participants in the OOP groups reported increases in both their perceptions of other students’ alcohol use and approval as well as their own frequency and social approval of alcohol use. These results indicate that two things were happening during these trips. First, incoming students were “learning” from their peers and their leaders that alcohol use was more prevalent and more accepted by other students than they believed before they went on these trips. Second, and more strikingly, they were then increasing their own self-reported use and approval of alcohol. Since it can be reasonably assumed they were not actually consuming more alcohol during these trips, it stands to reason that they made these adjustments in order to feel more like they “fit-in” with their new peer group. This explanation is consistent with conformity and cognitive dissonance research that suggests that individuals will often change their attitudes and beliefs in order to fit in with important referent groups. In contrast, the OOP+SN participants showed no such increase, indicating they did not receive the same information and therefore did not feel the same pressures to conform.

Ideally, outdoor orientation programs would decrease students’ misperceptions about alcohol use. In order to achieve this goal, programs must not only train student leaders to talk about alcohol, but also make these discussions an important part of the program’s culture. Incorporating social norms into the culture aids student leaders in feeling less like “disciplinarians” and more like this topic is an integral part of the curriculum (Curtis, 2006). This will likely increase student buy-in, thereby increasing “treatment fidelity” and ultimately participant outcomes.

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SEER 2012 ABSTRACT

The Hidden Curriculum in Adventure Education: A Delphi Study

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Review of Literature

Adventure education in the United States has a long history of influence by white, class-privileged males. In the period from the late 1970s to the turn of the 21st century, there were significant scholarship and program development to support the greater inclusion of females in outdoor adventure (Culp, 1998; Hardin, 1979; Henderson, Bialeschki, Shaw & Freysinger, 1996; Mitten, 1985; Mitten & Woodruff, 2010; Warren, 1995; Warren, 1996). As a result, the number of females participating in many parts of outdoor adventure has increased (Outdoor Industry Foundation, 2005). However, the growth in the number of women and girls participating in adventure education courses has outpaced the growth in the number of women in leadership positions in the adventure education field. The women who are in leadership positions continue to have substantial barriers to their longevity and successful growth in the field (Lotz, 2008). For example, advanced outdoor technical skill development opportunities have fewer women taking part (Warren & Loeffler, 2006). This leads to the question of why women progress more slowly and/or tend to not to pursue sustained professional involvement in adventure education.

This study was designed to gather and disseminate information about the hidden curriculum (HC) affecting female participants and leaders in adventure education. The HC includes the lessons learned by participants but not openly intended or part of the planned or taught curriculum. These unintended lessons, conveyed during instruction and the social environment, often include the transmission of norms, values, and beliefs (Martin, 1983). The HC tends to perpetuate the current cultural and economic norms. Brooks (2006) identified a potential hidden curriculum in safety guidelines for outdoor activities, which he implicated in potentially mis-educating participants about environmental education. Our current work complements his work and looks at the educational implications of the HC curriculum in adventure education. Some effects of HC can be beneficial to participants and further promote program goals while others can herald a need for improvement.

Methods

This study examined the phenomena of the HC using a Delphi method (Linstone & Turoff, 1975) in order to systematically explore components of curricula and assumptions of adventure education leaders. The objective was to use three questionnaires to solicit knowledge from a structured panel of experts in order to obtain a reliable semi-consensus of opinion. The Delphi technique helps panelists reflect and consider the subject area in order to offer considered and reliable responses.

The first questionnaire, comprised of seven qualitative questions, was sent to 39 individuals (21 females and 18 males) selected for their tenure of at least 15 years in the adventure education field within North America. The research team developed a thorough list of HC assumptions offered by the experts to use in the second questionnaire.

The second questionnaire, comprised of 13 questions, had 31 respondents, for a 79% retention rate. The primary focus of this questionnaire was to share the data gathered in the first questionnaire so the experts could see the breadth of opinions about HC offered by their colleagues including aspects they might not have thought of. Using an eight point Likert scaled questionnaire, respondents were asked to rate concepts and assumptions as to their agreement about their importance or impact on the HC. Consistent with the Delphi protocol, this allowed the experts and researchers to delve deeper into the problem. The researchers used descriptive statistics to show the level of agreement among study participants and 2-tailed T tests were used to determine significant differences between gender, parental status, age, years in the field, and class background at birth.

The focus of the third questionnaire was to scrutinize the researchers’ analysis of the data by checking it with study participants. Respondents were asked for their agreement or disagreement of the concepts found in the interpretation of the data in previous rounds.

Results

Figure 1 shows the components or assumptions of the HC in adventure education that ranked as having the greatest impact on students in the second questionnaire (of 26 total aspects identified in the first questionnaire). Additionally, responses to the questionnaires suggested many commonalities between the HC in adventure education and larger societal norms. As shown in Figure 2, overall respondents felt that the importance of physical skills over interpersonal skills (F) is slightly more prominent in adventure education than in greater society.

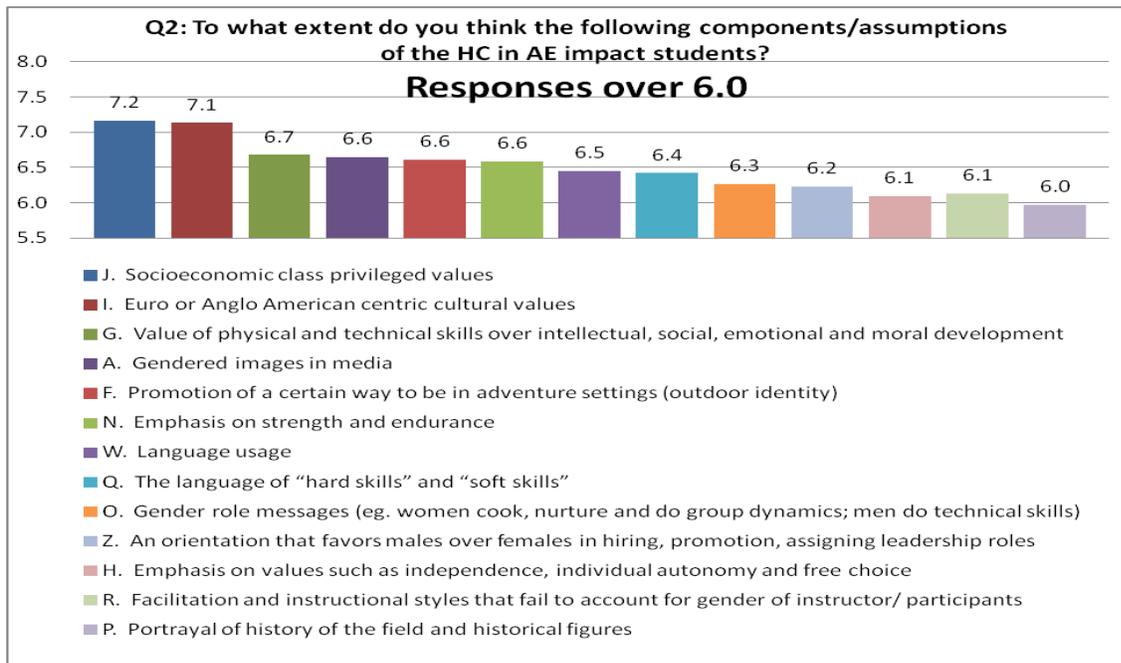


Figure 1. The thirteen curriculum components/assumptions that scored over 6.0 on an eight point scale as impacting students in adventure education.

When combining that which was more prevalent in adventure education with that equal in society and adventure education, respondents overwhelmingly indicated that women are expected to use their interpersonal relationship skills more than men (C) and challenges exist for

women that do not exist for men (I). Conversely, respondents indicated three situations more common in greater society than in adventure education: (a) Sexism; (b) men are better suited for the outdoors than are women (D); and (c) women's careers need to allow them to also be a primary caretaker at home (B).

Additional themes from the questionnaires explored in the third round are (a) HC factors often associated with social justice issues were highlighted in the second survey as having the most impact on students, yet the adventure education field was seen as largely addressing social justice issues effectively; (b) within the HC in adventure education *physical skills* are valued more highly than *interpersonal/emotional skills* while at the same time, women are expected to use interpersonal skills more than men; (c) the HC in adventure education promotes the undervaluing of the skill sets women are expected to perform in adventure education; the influence of top scoring factors on the origins of the HC in adventure education; and the effects of the HC in adventure education on women participants and women practitioners.

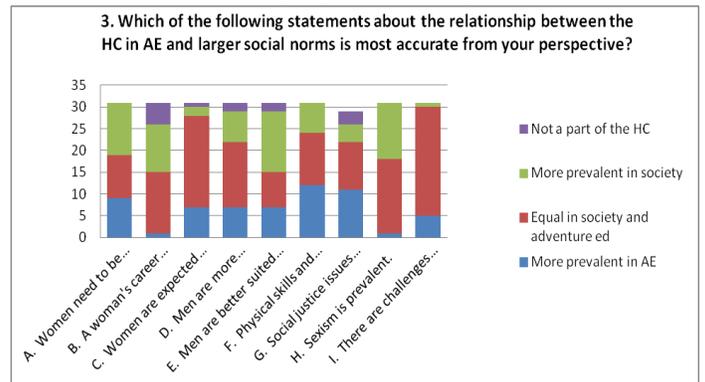


Figure 2. A comparison as to the prevalence of certain values and behaviors in adventure education and society

Discussion

In this study, components of the HC in adventure education have been identified by long-term educators in the field. Through an understanding of several key components, prospective adventure educators can learn how to mitigate the negative and highlight the positive components of the HC. Identifying possible origins of the HC in adventure education and making them known within the field allows for reexamination of training programs, literature, and learning outcomes of adventure education programs.

This study sheds light on elements of the HC that potentially create barriers and double binds to successful and sustained female engagement in adventure education. Researchers found messages that value physical and technical skills over intellectual, social, emotional and moral development; gendered images in media; language of “hard skills and “soft skills”; an orientation that favors males over females in hiring, promotion, and assigning leadership roles; and facilitation and instructional styles that fail to account for gender of instructor/participants. Women in adventure education may be able to negotiate some of these barriers similarly to the women in Little’s (2002) study on reconstructing adventure, however educational programs and professional standards should be examined and educators would be wise to intentionally design curricula that reduce aspects of HC that replicate the hegemonic culture in order to achieve a more equitable learning experience and that will foster positive outcomes for a diversity of students of adventure education.

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SEER 2012 ABSTRACT

THE RELATIONSHIP BETWEEN SOCIAL CLIMATE AND PEER INTERACTIONS ON ADVENTURE BASED OUTDOOR COURSES: A MIXED METHODS INVESTIGATION

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Michael J. Middleton, The University of New Hampshire

Introduction

This mixed-methods study examined how adolescents experienced the social climate of week-long outdoor courses and how those perceptions related to peer interactions. This study contributes to knowledge of how the social climate on adventure-based outdoor programs facilitates adaptive shifts in social motivations for youth.

With rising concerns that digital environments have become a dominant context for adolescent development, some argue that virtual interaction may displace activities that involve face-to-face interaction with peers (Subrahmanyam & Lin, 2007). This may be problematic since, for example, successful peer interaction at school has been associated with student engagement, cognitive strategies, problem solving, adjustment to school, and academic achievement (Berndt & Keefe, 1995; Ryan & Patrick, 2001; Wentzel, 1998).

Successful peer interactions may be considered through the *social achievement goals* with which students approach their peer relationships. Goal theories of motivation (Ames, 1992) presume that (a) behavior is intentionally focused toward the attainment of various goals individuals pursue (Meece, Anderman, & Anderman, 2006), and (b) regardless of individuals' reasons for engaging in social situations, they also desire a feeling of social competence. To obtain this, some individuals are motivated to *develop* relations with others, while others seek to *demonstrate* their social competence in order to obtain status or avoid rejection (Ryan & Shim, 2006, 2008). The manner in which individuals pursue these goals may determine how they interact with their peers (Mouratidis & Sideridis, 2009).

The need to understand the manner in which adolescents approach peer interaction and the development of social competence is essential to effective program design in various settings, which includes establishing appropriate social climates. 'Social climate' is the unique personality of a setting; like people, social settings have distinctive characteristics that are more or less supportive of developmental outcomes (Moos, 2003). The relationship between peer interactions and social climate is reciprocal; individuals influence the social climate and the social climate created by individuals further influences their experiences.

Outdoor courses may function in this way; by creating a unique context outside the parameters of traditional school and peer groups, they are likely less encumbered by preconceived notions of peer relationships and thus provide social climates that foster opportunities for adaptive forms of social motivation. Despite the fact that social growth is a stated goal of many outdoor programs (Hattie, Marsh, Neill, & Richards, 1997; Mitten, 1999), little is known about the social motivation of participants or the perception of the social climate that emerges during these trips.

A focus in the literature has been on creating positive group experiences, a construct that has been operationalized in a number of ways including sense of community, group cohesion,

and interpersonal relationships (Mitten, 1999; Todd et al., 2007). Research supports the idea that sense of community is positively related to trip duration and balanced leadership styles (Todd et al., 2007), that group cohesion plays significant roles in individual perceptions of development (Sibthorp, Paisley, & Gookin, 2007), and that field instructors play a critical role in program success (Raioli, 2003).

This study examined the relationship between the social climate of outdoor courses and participant social achievement goals in their peer relationships during those trips. It was hypothesized that the role of instructors and group cohesion may influence the social climate of outdoor courses and that the related constructs will be closely related to changes in social goals.

Method

Participants and Procedures. Questionnaires were collected from 72 youth, ages 14-19, before and after 5-day field courses run by a private boarding high school in New England. Surveys occurred one week prior to the course and one week after the course. After the collection and initial analysis of quantitative data, the sample was stratified into groups reporting high and low levels of *group cohesion*. Six participants across both groups were chosen to participate in in-depth phenomenological interviews about their experiences.

Measures. For the pretest, students responded to Ryan and Shim's (2006) 18-question survey assessing their pre-trip social goal orientation. At posttest, participants were given the Group Environment Scale (GES) (Moos, 2002) in addition to the social achievement goals survey. The GES assessed the relevant dimensions of the social climate of group settings.

After initial analysis of the surveys, two stages of phenomenological interviewing examined the group experience in participants' own words. The primary author analyzed transcripts and identified sections relevant to the research questions. The 123 selected sections were then reread and coded to find emerging themes; resulting in 7 primary themes. A final round of coding was completed and inter-rater reliability of 93% was established.

Results

Survey Results. Mean scores for the all subcategories of the GES, a normalized scale, grouped around the predicted mean score of 50. Results demonstrated significant correlations among the subscales *cohesion*, *leader support*, *task orientation*, *self-discovery*, *anger and aggression* (divergent construct), *order / organization*, and *innovation* ($p < .01$) yet no relationship to *leader control* or *independence*. Notably, there were few positive relationships with leader control in this sample. This short treatment (5 days) utilizing a small sample ($n=72$), did not evidence significant change in social achievement goal orientations, on average, but individuals did shift goal orientations in an adaptive direction; on average, social development goals were increased while decreasing social demonstration goals.

Interview Results. Interviews were used to clarify attributes of the social climate that might facilitate adaptive forms of social motivation. Seven themes emerged:

- ***Social development goals.*** Participants enact social development goals during these trips
- ***Instructor Modeling.*** Instructors play a meaningful role in the social experience of participants through modeling social development goal orientation and fostering a positive social climate
- ***Leader support versus leader control.*** Participants perceive a difference in leader support versus leader control and the related benefits

- **Order and organization.** Positive group dynamics are fostered through good order and organization, helping create a social climate where social development goals are fostered
- **Task focus.** The need to work together to accomplish manageable tasks assists students in setting and achieving goals, aiding in group cohesion
- **The role of unstructured time.** During unstructured time, participants reverted to preexisting social groups. Trips with higher cohesion were those with less unstructured time and more time spent playing games and engaging in facilitated activities
- **The lack of technology.** Outdoor trips' lack of technology leads to more quantity and quality of face-to-face communication – which is different than typical modern life

Several of these themes are demonstrated in the following quotations:

There is no technology, nothing else to distract other people, so in that sense they're kind of diverted from what they would usually do with technology and computers and ... actually more, kind of communicating with the group and forced to interact. So I think that definitely develops social skills a lot more because ... you're with a group of people that you're going to be with for about five days, so you might as well get to know them better and try to integrate with what they're doing, what they say. – Mark (high perception of group cohesion)

So when they (instructors) made groups, like cooking groups and cleaning groups they tried to mix every level of high school... and I think that definitely helped me out a lot because it helped me kind of integrate myself with everyone else versus just hanging out with the freshman and no one else. – James (discussing a previous orientation trip)

Discussion

Students' group experiences related strongly to the interpersonal relationships within the group. Participants moving toward adaptive peer interactions and noting high cohesion in their groups often described the importance of the context of being in the outdoors in general. Specifically, several individuals interviewed noted that their experience was enhanced by instructor support including facilitation of games and fun activities as well as structured and organized tasks, which the group must work toward accomplishing. Individuals who described their groups as low cohesion felt a lack of organization and task focus on their courses and noted that during unstructured time, cliques formed and maladaptive group behaviors emerged.

Instructors play a vital role in how participants experience the group during outdoor courses. A lack of *instructor support, order and organization, or task orientation* may result in low *group cohesion*. Interviewees felt their instructors played a meaningful role in the way the group functioned and the social climate of the trip, and therefore group cohesion. This points to the importance of the instructor as social engineer (Walsh & Golins, 1976). During courses that have high group cohesion, the role of instructor goes far beyond keeping youth safe and extends into the social domain through careful and intentional groupings for activities such as cooking as well as facilitating games, and creating a generally supportive atmosphere.

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A Brief History of the Symposium on Experiential Education Research (SEER)

Keith Russell (SEER Co-Chair 2006-2008)

Stacy Taniguchi (SEER Co-Chair 2011-Present)

The Symposium on Experiential Education Research (SEER) is a research symposium providing an outlet and venue for researchers in the field of experiential education to present, share, dialogue, and further develop their research ideas.

The first SEER took place at the Association for Experiential Education's (AEE) 2001 International Conference in Charleston, West Virginia. Fittingly, it was Dr. Alan Ewert of Indiana University who conceived of and led the effort to establish that first SEER. A widely published researcher and author in the field of adventure-based education, Dr. Ewert is also known for his distinguished career in academia, three decades as an Outward Bound instructor, as holder of the Patricia and Joel Meier Outdoor Leadership Chair, past editor of the *Journal of Experiential Education*, and as fellow and past president of the prestigious Academy of Leisure Sciences. In providing the leadership to launch SEER, Dr. Ewert was giving back to the field he has helped develop throughout his academic and professional career. The symposium occurs concurrently with the International AEE Conference each year and involves the presentation of research papers from leading international scholars in the field of experiential education. The process by which papers are selected for SEER begins each spring, when a call for papers is released in the *JEE*, on listservs, and other outlets, asking researchers, graduate students, and practitioners to submit their abstracts to a blind, peer-reviewed process facilitated by the co-chairs of SEER. After receipt of the abstracts, the affiliations are stripped from each paper and they are sent out for blind review to a panel of researchers in the field. Abstracts are reviewed for relevance to the field of experiential education, research methodology, and logic and clarity in writing. The papers are then ranked, and the top abstracts are selected for presentation at the Annual International AEE Conference. In addition to the presentations, the abstracts are published as a proceedings booklet, which is distributed at the conference. For about 10 years, the spring edition of the *Journal of Experiential Education* published these abstracts as a way to make them available to a wider readership. Currently, AEE publishes the abstracts of the last year online. Reading these abstracts is a great way to glimpse current research interests and cutting-edge research methodologies in the field.

In Little Rock, Arkansas (2007), the SEER program was modified to 90-minute, theme-based sessions. In this way, papers were grouped by topic in order to better promote SEER to practitioners and other conference attendees so they could attend sessions of interest.

Each presenter is allotted 20 minutes to present his/her research, which typically includes an introduction, a description of the methods employed, and the results and conclusions developed from the research. In addition to the papers presented, discussant remarks have been offered each year by leading scholars, practitioners, and leaders in the field of experiential education. This has provided a unique opportunity for substantive dialogue around current research. This year, the co-chairs have wanted to include students in the field who are studying the research topics presented and have invited guest graduate students to summarize the main topics and questions

presented at each SEER session and facilitate discussions among the SEER audience on questions for further research.

Beginning in 2008, SEER partnered with the Council on Research and Evaluation (CORE) in to explore ways to support the needs of AEE members and expand research in the field. As the field continues to grow and evolve in a social, political, and economic context, research will play a vital role in helping maintain and further the mission of experiential education in helping children, youth, families, and communities. To this end, research in educational, therapeutic, recreational, and other experiential learning settings are all welcome in SEER.

In 2011, SEER Co-Chairs Jayson Seaman and Alan Ewert initiated a research poster session for those important research studies that needed to be disseminated, but could not fit into the oral presentation schedule of SEER. This poster session will continue on an as needed basis.

It is our hope that SEER will be one of the many mechanisms for helping further AEE's mission in the years to come.

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