Proceedings
of the
2014 Symposium on Experiential
Education Research

presented at the
42nd Annual International
AEE Conference

Chattanooga, Tennessee, USA
October 23- 26, 2014
Welcome to the 14th 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 SEER 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.

As in past years, we are pleased to host both oral presentations and a SEER poster session as venues to hear about the many quality proposals submitted this year. SEER oral presentations are presented during two large blocks of time (Thursday and Friday afternoons at the AEE Conference) made up sessions that include several papers. We also continue to include a key points and summary of potential research topics discussions to each of the SEER sessions. We are delighted to open the 14th SEER with a panel discussing experiential education research.

Along with the researchers who submitted their work for review, we also wish to recognize other people for their efforts in making the symposium a reality. First, we would like to thank the AEE and staff members, including Caitlin Leahy and the 2014 Conference host team for their support and coordination of SEER, as well as the JEE editorial team and the AEE Council on Research and Evaluation (CORE) for ongoing support of SEER. We owe a great deal of gratitude to the scholars who graciously served as reviewers of the submitted abstracts: Noël Cox Caniglia, Briget Eastep, Garrett Hutson, Marni Goldenberg, Jillisa Overholt, Keith Russell, Amy Shellman, and Anita Tucker.

We would like to especially thank all of you attendees of this year’s Symposium. It is your interest that ultimately drives the research and practice relationship in the AEE. We prepare and host SEER because of the continued need for us to understand how and why experiential educational practices work to make a positive difference in people’s lives.

Thanks to all of you for being a part of this year’s SEER.

Denise Mitten, Co-Chair
Stacy Taniguchi, Co-Chair
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SCHEDULE OF SEER SESSIONS

SESSION 1: Thursday, October 23, 2014 (2:00 PM – 3:15 PM)

2:00P-2:10P = Welcome to the Symposium on Experiential Education Research (SEER)

SEER Session I Speakers

  - Anita Tucker & Annette Pelletier, co-authors

- 2:40P-3:00P = Susan Carter, *Adventures in a caring community: Exploring the effects of an experiential bullying prevention program*
  - Jennifer Jeverton, co-author


3:30P-3:40P = Key Points and Research/Practice Implications

SESSION 2: Thursday, October 23, 2014 (4:00 PM – 5:10 PM)

4:00P-4:05P = Session Introductions

SEER Session II Speakers


- 4:35P-4:55P = Curt Davidson, *High challenge activities & levels of resilience, empowerment, restoration, achievement, & social support in adventure education students.*
  - Yun Chang, Jay Whitacre, & Alan Ewert, co-author

5:00P-5:10P = Key Points and Research/Practice Implications
Poster Session: Thursday, October 23, 2014 (5:00 PM – 7:00 PM)

- Andrew Bittner, *Day hikers’ self-reported reasons for hiking in the Arizona wilderness.*

- Eliza McCutchen, *Experiential nutrition education: Effects of a school garden program on fruit and vegetable intake among seventh grade students.*
  - Melissa Knight-Maloney, co-author

- Nathan Meltzer, *An investigation of the influence of the instructor on participants’ biophilic expressions.*
  - W. Brad Faircloth, Andrew J. Bobilya & Denise Mitten, co-authors

- David Scheinfeld, *From battlegrounds to the backcountry: The intersection of masculinity and Outward Bound programming on psychosocial functioning for male military veterans*

- Stephanie Speicher, *Social studies developing social justice: Cultivating preservice teachers experientially.*

Session 3: Friday, October 24, 2014 (1:30 PM – 3:05 PM)

1:30P-1:35P = Session Introductions

SEER Session III Speakers:

- 1:40P-2:00P = Brad W. Faircloth, *A confirmatory assessment of a new Outward Bound outcomes instrument.*
  - Andrew J. Bobilya, co-author

  - John Bennion, co-author

  - Jim Sibthorp, Mandy Pohja, & John Gookin, co-authors

2:55P-3:05P = Key Points and Research/Practice Implications
SESSION 4: Friday, October 24, 2014 (3:15 PM – 4:45 PM)

3:15P-3:20P = Session Introductions

SEER Session IV Speakers:

- 3:20P-3:40P = Anita Tucker, *The impact of a wilderness therapy program on attachment, separation, and mental health functioning in adults.*
  - Joanna Bettmann Schaefer, Ellen Behrens, & Michael DeLuca, co-authors

- 3:45P-4:05P = Ryan J. Gagnon, *Enhancing diabetes management through experiential education.*

- 4:10P-4:30P = Sunwoo Lee, *Development of spiritual empowerment in experiential education: An exploratory study of people’s experience during Outward Bound winter course.*
  - Ivo Jirasek, co-author

4:35P-4:45P = Key Points and Research/Practice Implications
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 fields that use 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 who use and research 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 experiential education theory and practice, research methodology, and logic and clarity in writing. The papers are ranked, and the top abstracts are selected for an oral or poster 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 about experiential education.

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 her/his 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 experiential education theory and practice. This has provided a unique opportunity for substantive dialogue around current research.

In 2008, SEER partnered with the Council on Research and Evaluation (CORE) to explore ways to support the needs of AEE members and expand research about experiential education. As the use of experiential education 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.
Beginning in 2010, AEE has named an annual Distinguished Researcher Awardee. The recipient of the Distinguished Researcher Award offers an opening address before the first SEER session. Awardees include Keith Russell, Michael Gass, Lee Gillis, and Alan Ewert.

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.

At the 12th Annual SEER held in Madison, WI, Co-chairs Alan Ewert and Stacy Taniguchi replaced the summary discussant at the end of each session with an open discussion concerning the relative nature of the studies presented and questions for further research. Graduate students were invited to lead these discussions.

In 2012, SEER welcomed Dr. Denise Mitten as a Co-chair. Her long dedicated service to AEE and experiential education research has been a valuable asset in putting together SEER these last two years.

At the 13th SEER, Co-chairs Dr. Mitten and Dr. Taniguchi continued with the SEER format of the previous year and re-introduced the SEER poster session. They also decided to go totally digital for SEER’s Book of Proceedings, making the Book available online through AEE’s website. Utilizing a QR code, all attendees could access the Book.

At this year’s 14th Annual SEER, again Dr. Mitten and Dr. Taniguchi are honored and pleased to bring the research of 15 experiential educators and researchers to the Conference in both the oral and poster formats. In the continuation of furthering our understanding of the positive impact of experiential education, this year’s SEER should be interesting and enlightening for researchers and practitioners alike.

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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Stacy Taniguchi is an Associate Professor at Brigham Young University, Provo, Utah, USA. Email: stacy_taniguchi@byu.edu
Family Enrichment Adventure Therapy: A Mixed Methods Study Examining the Impact of Trauma-informed Adventure Therapy on Children and Families Affected by Abuse

Christine Lynn Norton, Texas State University, San Marcos
Anita Tucker, University of New Hampshire
Annette Pelletier

Introduction
This project examines the impact of trauma-informed adventure therapy with children and families affected by abuse and neglect. Adventure therapy is the “prescriptive use of adventure experiences provided by mental health professionals, often conducted in natural settings that kinesthetically engage participants on cognitive, affective and behavioral levels” (Gass, Gillis, & Russell, 2012, p. 1). Specifically, this research asks if adventure therapy is 1) an effective mental health intervention for child survivors of physical and sexual abuse, and 2) an effective intervention for families affected by abuse and neglect. The effectiveness of the adventure therapy intervention was measured by a reduction in child trauma symptoms and improved family functioning.

Review of Literature
Given the relationship between family functioning and reduced childhood trauma symptomology, there is a need for innovative family-based interventions to trauma (Pernicano, 2010). One such intervention is trauma-informed adventure therapy. Launched in 2009 with a grant awarded from the Texas Parks & Wildlife Department, ChildSafe’s Family Enrichment Adventure Therapy (FEAT) program connects family members with one another while, as a unit, they connect with the outdoors and other families healing from the effects of child abuse and neglect. In conjunction with “talk therapy” in individual, group, and family settings, FEAT participants travel, hike, and camp outdoors, among other adventure-based activities. Based on protocol by the National Child Traumatic Stress Network (2008), adventure therapy personnel provide trauma-informed care in an adventure therapy context as they guide conversations and activities in ways that highlight a family’s unique strengths and the family’s preferred way of relating to and being with one another. They also connect with family members to recognize the family’s need to be respected, informed, connected, and hopeful regarding their own recovery (SAMSHA, 2013). The prevalence of childhood abuse and neglect create byproducts of PTSD and other mental health concerns. By demonstrating the efficacy of family-based adventure therapy interventions on trauma and family functioning, as well as the relationship between these two variables, this study sought to contribute clinically relevant and evidence-based information to mental health providers and consumers regarding the range of treatment options available to children and families affected by abuse and neglect, especially for those families living in underserved communities in the area of mental health. ChildSafe’s demographics consist of mostly Hispanic, low-income families who often receive less care and poorer quality of care in the realm of mental health treatment (NAMI, 2013), and are also considered a medically underserved community.

Method
This research project utilized a mixed-methods approach in which quantitative data were collected and analyzed via a quasi-experimental non-equivalent groups design, and qualitative data were collected via focus groups. Two purposive samples made up of ChildSafe clients were administered
pretests-posttests assessing trauma symptoms and family functioning. Sample A included children and families who received counseling services at ChildSafe and participated in FEAT. Sample B included children and families who received counseling services at ChildSafe, but did not participate in FEAT. Sample B served as a comparison group to better isolate the treatment impact of the adventure therapy intervention. At the time of this study, a total of 32 children and their families participated in the study with 18 youth in the study group and 14 youth in the comparison group ($N = 64$). Both sample groups were largely Hispanic or Caucasian, with the majority of youth having experienced sexual abuse. Overall more girls than boys participated, with youth as young as 8 and as old as 17 years old, and most youth in both groups had a primary diagnosis of Adjustment Disorder and lived with both parents. Chi square analyses found no significant differences between the groups in terms of gender, race, family income, primary diagnosis and number of parents in the home.

**Measures**

Children in both sample groups who were referred to ChildSafe as primary victims of abuse and neglect completed the Trauma Symptom Checklist for Children (TSCC) before receiving any services and three months post-admission. This assessment tool measured the impact of trauma as manifested both in symptoms of posttraumatic stress disorder and other psychological distress symptoms (Briere, 1996). One caregiver from each family that participated in this research study from both sample groups completed the Family Assessment Device (FAD) before receiving any services and three months post-admission. The FAD is based on the McMaster Model of Family Functioning (Epstein, Baldwin, & Bishop, 1983) and assesses the structure and transactions of the family system. Quantitative data were analyzed via SPSS to determine both statistical significance and effect sizes of change pre-to-post intervention. Qualitative data were collected via focus groups and transcribed and coded for textual and thematic analysis. Focus groups were conducted with sub-sets of both Sample A and B. These data were used to give voice to participants’ subjective experiences, as well as triangulate the quantitative findings. Per SAMHSA’s best practices (SAMHSA, 2013) to work in a collaborative and empowering way with trauma survivors, family and friends of the survivor, and other human services agencies, we involved consumers and family members in the design and implementation of this research project by engaging past FEAT family participants in 1) helping us draft focus group questions for research study participants and 2) helping facilitate focus groups so that families felt more comfortable in discussing their concerns with other consumers.

**Results**

Table 1 show improvements in the TSCC subscales of anxiety, anger, PTSD, and depression symptoms for youth who participated with their families in FEAT compared to youth who did not participate in the FEAT program. Depression levels for FEAT youth significantly improved at the three month mark, with mean differences in all four subscales associated with strong effect sizes greater than 1.0. Smaller to no improvements were reported in the three subscales for dissociation symptoms or sexual issues for the FEAT youth, which are not shown here. For youth who did not participate in FEAT there were no statistically significant differences on any TSCC subscales. Despite no statistically significant initial differences between the comparison groups demographically, it does appear that the FEAT group was more acute in terms of family dysfunction than the non-FEAT group. Though Table 2 does not show any statistically significant gains or losses for FEAT families pre-to-post intervention, data showed that FEAT families moved from clinical to subclinical scores in the areas of communication and general functioning. In fact, for FEAT families, FAD scores decreased in all categories (the lower the scores, the less “stressed” the family), with moderate effect sizes in the area of communication. Families that didn’t
participated in FEAT had no statistically significant improvements, and actually declined at a statistically significant rate in affective involvement. However, they did move from clinical to subclinical scores in the area of behavior control.

Table 1. Trauma Symptom Checklist Youth Self Report at Admission and Three Months Post Admission on Selected Subscales

<table>
<thead>
<tr>
<th></th>
<th>$M_{\text{Admission}}$ (SD)</th>
<th>$M_{\text{3 Months}}$ (SD)</th>
<th>t</th>
<th>d</th>
<th>95% CI (lower – upper)</th>
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<td><strong>FEAT GROUP</strong></td>
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<tr>
<td>Trauma Symptom Checklist</td>
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<tr>
<td>(n = 7)</td>
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<tr>
<td>Anxiety t-score</td>
<td>50.9 (8.5)</td>
<td>44.3 (8.3)</td>
<td>2.22</td>
<td>1.20</td>
<td>-5.10 – 7.35</td>
</tr>
<tr>
<td>Depression t-score</td>
<td>54.4 (7.4)</td>
<td>42.4 (9.2)</td>
<td>2.55*</td>
<td>1.37</td>
<td>-4.12 – 8.18</td>
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<tr>
<td>Anger t-score</td>
<td>48.6 (8.2)</td>
<td>43.6 (10.3)</td>
<td>1.32</td>
<td>1.55</td>
<td>-4.53 – 9.18</td>
</tr>
<tr>
<td>PTSD t-score</td>
<td>54.6 (10.1)</td>
<td>46.7 (6.7)</td>
<td>1.92</td>
<td>1.07</td>
<td>-6.42 – 6.03</td>
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<tr>
<td><strong>NON-FEAT GROUP</strong></td>
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<td>Trauma Symptom Checklist</td>
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<td>(n = 9)</td>
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<tr>
<td>Anxiety t-score</td>
<td>56.2 (9.6)</td>
<td>53.3 (9.6)</td>
<td>2.40</td>
<td>0.90</td>
<td>-5.37 – 7.17</td>
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<td>Depression t-score</td>
<td>53.3 (9.6)</td>
<td>56.6 (14.1)</td>
<td>-0.85</td>
<td>-0.44</td>
<td>-6.71 – 8.77</td>
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<td>Anger t-score</td>
<td>50.7 (7.3)</td>
<td>53.3 (13.4)</td>
<td>-1.01</td>
<td>-0.70</td>
<td>-5.47 – 8.06</td>
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<td>PTSD t-score</td>
<td>56.3 (7.2)</td>
<td>55.1 (9.7)</td>
<td>0.36</td>
<td>0.17</td>
<td>-4.53 – 6.51</td>
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* $p < .05$

Table 2: Admission and Three Months post Admission FAD Scores as Reported by Caregivers

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<th>$M_{\text{Admission}}$ (SD)</th>
<th>$M_{\text{3 Months}}$ (SD)</th>
<th>t</th>
<th>d</th>
<th>95% CI (lower – upper)</th>
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<td><strong>FEAT GROUP</strong></td>
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<td>Family Assessment Device</td>
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<td>(n = 12)</td>
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<tr>
<td>Affective Involvement</td>
<td>2.16 (.38)</td>
<td>2.14 (.58)</td>
<td>.247</td>
<td>.24</td>
<td>-0.06 - .71</td>
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<td>Affective Response</td>
<td>2.01 (.44)</td>
<td>1.92 (.43)</td>
<td>.997</td>
<td>.38</td>
<td>0.03 - .72</td>
</tr>
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<td>Behavior Control</td>
<td>1.74 (.38)</td>
<td>1.72 (.49)</td>
<td>.073</td>
<td>.19</td>
<td>-0.12 - .58</td>
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<td>Communication</td>
<td>2.15 (0.30)</td>
<td><strong>2.00 (.43)</strong></td>
<td>1.07</td>
<td>.65*</td>
<td>0.41 - 1.0</td>
</tr>
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<td>General Functioning</td>
<td>2.10 (.52)</td>
<td><strong>1.98 (.46)</strong></td>
<td>.766</td>
<td>.47</td>
<td>0.06 - .84</td>
</tr>
<tr>
<td><strong>NON-FEAT GROUP</strong></td>
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<tr>
<td>Family Assessment Device</td>
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<td>(n = 11)</td>
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<tr>
<td>Affective Involvement</td>
<td>1.77 (.56)</td>
<td>1.80 (.54)</td>
<td>-1.00</td>
<td>0.77*</td>
<td>0.34 – 1.22</td>
</tr>
<tr>
<td>Affective Response</td>
<td>1.61 (.43)</td>
<td>1.55 (.49)</td>
<td>.339</td>
<td>.18</td>
<td>0.16 – 0.57</td>
</tr>
<tr>
<td>Behavior Control</td>
<td>1.46 (.49)</td>
<td><strong>1.42 (.58)</strong></td>
<td>.189</td>
<td>.14</td>
<td>-0.25 – 0.61</td>
</tr>
<tr>
<td>Communication</td>
<td>1.80 (.34)</td>
<td>1.76 (.45)</td>
<td>.555</td>
<td>.43</td>
<td>0.16 – 0.79</td>
</tr>
<tr>
<td>General Functioning</td>
<td>1.59 (.38)</td>
<td>1.54 (.50)</td>
<td>.384</td>
<td>.24</td>
<td>0.06 – 0.64</td>
</tr>
</tbody>
</table>

* $p < .05$, **Bold** Scores reflect scores that moved below problematic or clinical range. *Moderate effect sizes

Qualitative data from focus groups was coded and analyzed thematically, and findings show that ChildSafe services improve family functioning both for FEAT and non-FEAT clients. FEAT families attributed this to adventure therapy; non-FEAT families reported that traditional counseling was the most important service they received. However, FEAT families (who also received
traditional counseling services) reported greater communication, closeness and problem-solving skills gained through the adventure therapy intervention. They also reported a faster return to normalcy, and a greater sense of empowerment and healing than non-FEAT families.

**Discussion**
Quantitative findings from the TSCC showed that FEAT appeared to be an effective intervention for decreasing trauma symptoms in children and adolescents, particularly related to depression and anxiety. According to the FAD, FEAT families appeared more stressed at intake and did not show significant changes in family functioning; however, FEAT seems to help families move from “stressed” to “non-stressed” in the areas of communication and general family functioning. These findings are supported by the qualitative data, which show the FEAT intervention had a profound impact on communication, cohesion and problem-solving in participating families. Qualitative data also showed that FEAT enhanced family behavioral and skill building. Considering the long term services provided for these families and their complex histories, three months may be too soon to see significant changes in the FAD, hence additional follow up is needed. The qualitative findings also showed that the multifamily group setting in which FEAT occurred appeared powerful in helping families heal. These findings reaffirmed prior research which showed that multifamily groups were effective in addressing the needs of families who had experienced trauma and were associated with positive parenting practices, parental self-efficacy, lower parental/families distress (Kiser, Donohue, Hodgkinson, Medoff, & Black, 2010) as well as higher rates of service use, reductions in child behavior problems and improvements in family functioning (Snell-Johns, Mendez, & Smith, 2004). Clearly more research is needed; however, this study begins to build a foundation for trauma-informed adventure therapy as an innovative and new intervention for children and families experiencing abuse.

*Christine Lynn Norton can be reached at cn19@txstate.edu*

**References**


Exploring the effects of an experiential bullying prevention program

Susan Lee Carter, PhD, Susan Lee Carter, Inc.
Jennifer Jevertson, MS, Santa Fe Mountain Center.

Introduction
In 2004, the Santa Fe Mountain Center (SFMC) created Adventures in a Caring Community (ACC), an experiential bullying/interpersonal violence prevention program for elementary students that creates a caring community by strengthening social engagement, empathy and internal assets, teaching bullying intervention skills, and decreasing stress and anxiety. ACC has continued to be implemented every year since 2004.

Specific risk factors that may indicate participation in, or victimization by, bullying behavior include poor social engagement skills, lack of awareness of how bullying affects others (empathy), and personal anxiety/stress which cause young people to act out in anti-social ways. Once bullying behaviors are established, they in turn become risk factors for other psychosocial, behavioral and educational outcomes. The ACC model recognizes each level. Protective factors are integrated into the program design, which teach youth positive social engagement (including empathy), constructive ways to reduce bullying behavior and more constructive ways to cope with stress and anxiety. The ACC theory of change posits that strengthening internal assets will contribute to the decrease in negative outcomes, including bullying and interpersonal violence.

The ACC works with the entire fifth grade level within an elementary school throughout the school year. Students participate in nine 2-hour experiential sessions (located at the school) and three full day 4.5 hour ropes course programs (located at local SFMC sites). Each student receives 32 hours of intervention throughout the school year. Students work as a class and in small groups participating in cooperative games, problem-solving initiatives, experiential lessons, role-plays, debrief/reflection time, and low and high ropes course events. In the following year, as sixth graders, students receive two 2-hour booster programs to reinforce and support the resiliency skills and caring community concepts that were focused on during fifth grade.

Review of Literature
The National Education Association has stated that in recent years, "bullying has become more lethal and has occurred more frequently" than in the previous two decades. A national survey found nearly 30% of students are involved in bullying, either being bullied or bullying others (Espelage, et al, 2004). Involvement in bullying often leads to other significant risk factors. Youth who are bullied have higher rates of suicide, depression, post-traumatic stress disorder, and substance abuse (USHHS/CMHS, 2003). Those who frequently bully their peers are four times more likely to engage in delinquent behavior and substance abuse (Pepler et al., 2001). Children who both bully and are bullied by others are at the highest level of risk for problems such as depression and anxiety and are more likely to become involved in risky or delinquent behavior (Pellegrini, 2002). Bullying also has an impact on other students at school, often creating a climate
of both fear and disrespect that results in a negative impact on learning for all students (NEA, 2003).

**Method**

Study participants included all fifth graders enrolled in two elementary schools in the southwestern United States. One school was designated as the intervention school, while the other served as the comparison school. The intervention school was chosen because of its history with the program and willingness to participate. The comparison school was chosen with assistance from the school district as the best demographic match to the intervention school. Baseline survey data were collected in classrooms from 114 youth. Analyses are based on those 64 cases with completed surveys at baseline and exit for 5th graders in the study; followed by an eight-month follow-up for study participants in 6th grade (T1, T2, T3).

Intervention participants received 32 hours of programming in classroom and off-site challenge course settings over the course of the school year. Fidelity assessments were completed for every program session to assure adherence to the curriculum.

The program survey measures include:

- **Resilience.** The WestEd California Healthy Kids Survey: Resilience Module, Internal Assets measure was used to assess resilience (Constantine et al., 1999). The scale includes 18 items that provide measures of goals and aspirations, problem-solving, self-efficacy, cooperation and communication, empathy, and self-awareness. A global internal assets score is also produced.

- **School climate.** The locally developed school climate scale includes four items which assess caring relationships, safety, and attitudes about interpersonal violence in the school environment.

- **Mental health.** The mental health measure includes 14 items related to depression and anxiety, adapted from Derogatis et al., 1976.

Because the study design was quasi-experimental and vulnerable to certain threats to internal validity, we used propensity score matching (D’Agostino, 1998) to provide more confident baseline equivalence between the two conditions. Propensity scores were based on pretest characteristics matching each treatment individual with one control individual sharing similar characteristics.

The primary analyses used General Estimating Equation (GEE) analyses to test the effects of treatment condition (treatment versus comparison) on outcomes. Predictors in the regression were Timepoint, Treatment Condition, and the Timepoint X Treatment Condition interactions. The comparison condition and baseline timepoint served as the reference categories, so that we could identify from the Timepoint X Condition interactions where statistically significant changes occurred (i.e., between baseline and T2, or between baseline and T3). We computed Cohen’s $d$ effect sizes using equations provided by Feingold (2009) for use with repeated measures models. GEE results reported here are from analyses using an unstructured covariance matrix, demonstrating good fit to the data.
Results

We did not observe overall between-condition differences, as reflected in statistically significant Time X Condition effects, for any of the outcomes from T1 to T2. In contrast, we observed overall between-condition differences for three outcomes from T1 to T3 (self-efficacy, communication and cooperation, and internal assets global score). Findings favored the treatment condition by showing improvements at T3 in terms of greater self-efficacy, and communication and cooperation, and greater overall internal assets. Cohen’s $d$ statistics indicate that the effect sizes for these findings were typically small to medium in magnitude.

Discussion

The program intervention holds promise as a means to develop social emotional competencies in youth, which are related to improvements in school climate and decreases in bullying. Findings indicate that two internal assets measures and the global assets measure improved significantly from baseline to follow-up (T1 to T3) for the ACC intervention group. Findings also indicate that while not statistically significant, the treatment group generally outperformed the control group on all but one measure of internal assets, as well as on the school climate measure from baseline to exit and follow-up. It is encouraging to note that these differences held up at follow-up (T3), suggesting that program effects may not be experienced immediately, but that they appear some months after the end of the intervention producing a sustained effect. Additional study is required to better understand the mental health measures. A recent focus group with program participants yielded valuable insights into perceptions of bullying among this population and may be used to improve future program interventions and measures.

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References


Adventures in parenting: Motivations for outward bound family course participation

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Review of Literature

The Outward Bound (OB) family course is an interesting form of family leisure, precisely because of its location, both physically and figuratively, away from the ordinary. In these courses, a parent (usually a father) and child(ren) participate together in an extended outdoor adventure experience. A number of studies have looked at outdoor adventure programs (OAPs) as a method to enhance family communication and lead to positive relationship development (e.g. Ewert et al., 2011; Freeman & Zabriskie, 2002; Huff, Widmer, McCoy, & Hill, 2003; Overholt, 2013). These studies have examined the ways in which OAPs foster relationship change and development, but have placed less emphasis on the reasons that families choose to participate in these programs, or the ways in which these experiences fit into broader notions of parenthood.

Social conventions surrounding fatherhood are in flux, and men are often expected to be more active participants in fatherhood than they were a generation ago (Palkovitz, 2002). Kay (2006) suggests that leisure time may be especially important to father-child interactions, and in some cases even more so than mother-child interactions, which tend to be focused on daily life events such as meals and transportation. This may be because of deeply entrenched conceptualizations of gender divisions in the home and the ways men prioritize the time they spend with their children. Similarly, according to Lamb (1997), fathers tend to be seen as “specializing” in play; even though mothers may actually spend more time playing with their children than fathers, the percentage of father-child time spent in play is greater. These phenomena suggest that providing dedicated time for men to spend with their children would capitalize on a preferred method of interaction in a setting that may be considered gender-appropriate (i.e., outdoor adventuring), while creating an atmosphere that also calls for interaction in daily life activities such as meal preparation, daily travel, and personal maintenance. Thus, understanding why men choose to participate in these experiences with their children is important to creating a course that meets the needs of modern families, while also recognizing the unique contributions of these types of experiences.

Methods

This abstract reports on a subset of data from a larger study designed to understand the phenomenon of father-child participation in an OB family course. This study utilized an ethnographic case study design, beginning with in-depth observation of an OB family course, coupled with pre-course interviews (1-2 weeks prior to course) and post-course interviews (three months after participation). Additional interviews were conducted with several groups of participants, including students who had participated in a family course within the previous one to five years, and family course instructors. Families in this study all participated in an eight-day wilderness-based adventure experience, which included rock climbing, rappelling, a peak attempt, and travelling and camping in rugged environments. In addition to eight consecutive days of
participant observation, 27 interviews were conducted with 21 participants, who were members of nine different families, or who were instructors. While Outward Bound family courses are open to family members of any type, all of the participants in this study, as well as the large majority of Outward Bound family course participants in general, consisted of fathers and their children. Data collection and analysis followed the recommendations for ethnographic and social science field work by Emerson, Fretz and Shaw (1995) and Lofland, Snow, Anderson and Lofland (2006). Data analysis was an iterative process that involved visiting and revisiting data as more sources were added; this open coding process gave way to the creation of themes and then returning to the data for more focused coding.

Results

This abstract reports on one section of a larger study, and focuses specifically on the motivations of fathers regarding their decision to participate in an OB family course, and the parenting strategies connected to this decision. In this abstract I argue that the OB family course experience can be seen as a form of “concerted cultivation” (Lareau, 2003), wherein middle class parents have chosen an experience that is not only beneficial to their relationship with their child(ren), but that will also be beneficial to the child(ren)’s development. Many fathers expressed that the OB family course was not a vacation, but rather a purposeful tool used to achieve a variety of goals. The experience was considered different from a vacation because the fathers found themselves in challenging and “equalizing” (Overholt, 2013) experiences with their children, often had to “let go of control”, were completely away from technology and distractions, and were able to connect with the natural environment in more meaningful ways.

The idea of having an adventure was an important element of choosing to participate in the course, but it was equally important that “you are both in it together.” The parent did not create the adventure for the child, but instead they became joint participants. This sentiment was expressed by one of the fathers, Nicholas, for whom the OB course meant trading mundane decisions such as what the family would eat for dinner, for more challenging tasks like getting over the next mountain pass. This experience was further characterized by giving up some of the control inherent to the parent role: “…the important thing is to realize that you’re not in control. And you’re not going to be.” (Nicholas, Family H). Many of the children in this study also discussed their experiences of reduced control, especially around choices of what to do or eat. One of the daughters said this led to fewer arguments with her father because “there was nothing to argue about.”

When asked about goals for the course, most of the fathers responded with goals they had for their children, such as gaining more self-confidence, or being more open to constructive criticism. For example, Kevin’s goal for his son Liam had to do with success and self-confidence because he was having a tough time in school: “The focus I had with Liam was ‘you can succeed, you can do things, you are stronger than what you think.’ … I wanted it to be a confidence builder for him. And so I really stressed that to him...” (Kevin, Family A). In their interviews, many of the fathers emphasized the importance of these developmental opportunities, and spoke of utilizing the course as a tool that fit within a broader scheme or parenting philosophy. The course instructors often stressed similar things, or picked up on what the fathers were emphasizing and tried to build that into the course structure. Another father, Edgar, told me that he actually spoke to his instructors at the beginning of each course (he participated in more than one) to tell them about his plan, and to ask them to help in emphasizing his goals.

“The reason I chose Outward Bound was it sort of fit with this philosophy I had of how to bring a boy, in this case--just because I don’t have any daughters--up. And letting them know along the way what you are expecting of them, and how they can live with integrity and respect, and remain true to themselves and that sort of thing.” (Edgar, Family H)
Additionally, some fathers chose this experience as a means of creating family ritual or rites-of-passage experiences that they felt were missing from other aspects of their family life. Rites of passage are symbolic, often cultural, markers of transition that exist in societies and cultures around the globe. However, today’s modern world has lost many of the ritual and rite-of-passage experiences that were once common to youth (Shepard, 1995). Most of the children in this study were adolescents who were in various stages of negotiating the transition to adulthood, and this course was identified as a means of marking this transition or aiding in it in some way. One father had actually created a series of four rite-of-passage experiences, of which the OB course was the second for each of his sons.

“…but I do know every ancient culture had a rite of passage for men…so I wanted to create kind of a rite of passage, so each one of these phases or each one of these times…between certain times in their life, there’s things they need to know, and they need to understand about what the world’s going to unfold for them over the next phase of their life. And then, where they stood with me.” (Edgar, Family H)

Others also recognized the value of the OB family experience as a rite of passage, although perhaps only in retrospect. For example, after participating once, both Kevin and Fred chose to create a family tradition by returning with their other children once they had each reached a certain age. In these cases, the OB family course provided an opportunity for a desired way of interacting within the parent-child relationship.

**Discussion**

While the experiences and backgrounds of the families in this study varied widely, commonalities centered around the desire to utilize the OB family course as a tool for both child development and parent-child bonding. Participation in an OB family course facilitates shared experience between father and child in a way that also fosters connection to place, and may help mark developmental milestones and coming of age. For some fathers the combination of these elements made for an ideal rite of passage experience for adolescent children, which became a family tradition. The combination of these motivations and the characteristics of the experience itself made for something that was very different from a family vacation, even though OB was also seen as a means of escape from ordinary life.

These opportunities are presented within a milieu that is socially acceptable and desirable for fathers, especially those who work long hours, or spend extended time away from home. Understanding these motivations allows practitioners to better craft course experiences and curricula to meet these goals, while simultaneously allowing researchers to better understand the outcomes of these courses in a variety of ways.

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**References**


SEER 2014 ABSTRACT

Multiple methods for identifying outcomes of a high challenge adventure activity

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Alan Ewert PhD, Indiana University
Yun Change MS, Indiana University

Introduction

Given the inherent risk often associated with Outdoor Adventure Education (OAE) experiences, it has remained challenging to measure selected psychological constructs during actual participation in the adventure activity. To date, data collection has typically consisted of a pre/post format, that is, usually immediately before and after the activity. This research project sought to identify the perceived gains in levels of Resilience, Empowerment, Restoration, Achievement, and Social Support (RERAS) in students engaged in a high challenge activity; rappelling.

OAE is believed to enrich individuals in a myriad of ways (Bowen & Neill, 2013). For example, Ewert, et al., (2011) suggest that students gain valuable enhancement in their levels of perceived resilience, empowerment, restoration, achievement, and social support through a close interaction with natural environments and participation in “Intentionally Designed Experiences” (IDEs) such as those experienced during an OAE program.

This study utilized an in situ data collection process which is part of larger project involving a semester long outdoor leadership program. This specific paper will be limited to reporting the findings from the data connected with the rappelling activity of that program. This project is unique because of the in situ portion that measures change while participants are actually engaged in a rappelling activity. This is important since very little is known about the way in which personal growth and psychological health variables, such as RERAS, are achieved while actually participating in the adventure experience (Bowen & Neill, 2013). In addition, this study utilized semi-structured interviews, coupled with pre/post quantitative measures to investigate personal growth and psychological health variables, such as RERAS, are achieved while actually participating in the adventure experience (Bowen & Neill, 2013).
growth and psychological health variables while participating in an adventure activity, namely, rappelling off of a 100 foot cliff.

**Literature Review**

The following is a brief description of the individual components that formulate the RERAS instrument which were developed to serve as the constructs investigated:

**Resilience:** Resilience is an outcome thought to be enhanced by OAE experiences (Ewert & Yoshino, 2011). Resilience is defined as an individual’s capacity to mitigate factors that threaten his/her psychological health and well-being (Kaplan, 2002). OAE experiences can be effective in strengthening resilience because participants are faced with progressively more challenging tasks and then mastering these tasks within the adventure setting. Furthermore, resilience becomes an important attribute for people when dealing with adversity and trying situations such as loss of a loved one, military service, changing work situations, or health issues (Jackson, Firtko, & Edenborough, 2007).

**Empowerment:** OAE programs can instill students with a sense of empowerment (Walsh & Golins, 1976). An enhanced sense of empowerment for students, provided through their OAE program, may help students improve their personal skills, experience success, and ultimately enhance their willingness to make positive contributions to society (Shellman & Ewert, 2010; Surrey, 1987).

**Restoration:** The restoration variable in this research is grounded in Attention Restoration Theory (Kaplan, 1995). This theory suggests that by exposure to a natural setting, such as that presented in an OAE, an individual’s attention span and cognitive functioning can be enhanced (Berman, Jonides, & Kaplan, 2008). These benefits are important when teaching students the value of living healthy lifestyles. A host of other benefits from restoration has also been found such as increased ability to focus and decreases in mental fatigue (Berman et al., 2008; Kaplan, 2001).

**Sense of Achievement:** Sense of achievement is a key component in increasing a student’s self-efficacy both during the OAE experience and afterward (Hattie, Marsh, Neill, & Richards, 1997). This sense of achievement is most likely obtained by engaging the students in a variety of physically and/or emotionally demanding activities, and through perseverance and self-motivation, they can be successful. Unlike traditional sports, the OAE setting often involves non-physical activities in which the group relies on a student for a particular skill that they possess.

**Social Support:** Literature suggests that individuals who have a strong social support system are more likely to: maintain a positive view of themselves and others, inculcate positive help-seeking habits, and provide higher levels of emotional support for others (Florian & Mikulincer, 1995). This positive social support can allow students to develop a stronger “sense of self.” Subsequently, this can aid in confirming new positive attributes that participants learned about themselves during their OAE experience. Additionally, this can lead to changes in personal growth and development having long-term beneficial impacts to students.

**Methods**

This study utilizes a mixed-method approach by employing survey data and semi-structured interviews in order to provide an in-depth understanding of what transpires psychologically within a subject during a high challenge adventure activity. In addition, this study involved three data collection components and five different collection times. First, a repeated measure using the quantitative instrument examining levels of RERAS. Second, a video solicitation component was used to record students in moments of “high stress” such as when they are in engaged in the rappel. Third, while being videotaped, the subjects were queried for information regarding the RERAS variables and their psychological and emotional state. During the video recording, the students were
asked what they are experiencing with special attention given to the RERAS variables and issues related to their psychological and emotional state.

Two instruments, quantitative survey and a qualitative semi-structured interview guide, were developed by the research team for the purposes of this study. Each instrument was constructed using current literature from the fields of OAE, Environmental Health, and Psychology and focused on expected psychological variables thought to be effected by a high challenge activity with an emphasis on the RERAS constructs (Ewert & Voight, 2012). Qualitative data were coded and analyzed thematically using NVivo 10 software for themes that represent what the students were experiencing and how they perceived changes to the variables of interest before, during, and immediately after the activity (Silverman, 2006). Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS 22).

**Results**

The sample consisted of 18 subjects all of which self-selected into a semester long outdoor leadership program at a Midwestern University. Subjects were primarily upperclassmen (juniors and seniors) and were evenly split in gender (9 males and 9 females).

*Quantitative*

A paired-samples t-test was used to determine if the rappelling experience had an impact on five constructs of RERAS. As shown in Appendix A, there were no significant differences between the pretest and posttest among five constructs of RERAS ($p<.05$). These results suggested that the rappelling experience had no significant impact on participants’ levels of resilience, empowerment, restoration, achievement, and social support. However, the mean differences showed a slight increase in resilience and empowerment. While levels of restoration and achievement and social support slightly decreased.

*Qualitative*

Interviews were recorded using GoPro helmet mounted cameras and interviews were conducted by the research team as the participants engaged in the rappel. Three interviews were conducted, at the edge of the rappel, halfway down the rock face, and at the bottom of the cliff. These interviews were then transcribed and the most prevalent themes were extracted.

This analysis revealed the top five themes that emerged from the interviews as being excitement, control, trust, nervousness, and learning. These themes occurred most frequently between subjects and provided rich description to the quantitative data. Further analysis investigating the strength of relationships between themes and across the subjects is needed to understand how subjects perceive benefits as they move past the highest stress portion of the activity (going over the edge).

**Discussion**

The quantitative findings in this study were limited in scope due to a small sample size. Although the data from the quantitative RERAS instrument resulted in statistically insignificant findings. These findings suggest that during high challenge activities, subjects may experience a decrease in these variables as they doubt their abilities and are confronted with the fears associated in high challenge activities. Further data collection to increase the sample size will be conducted in the spring of 2015 and differences reexamined.

The qualitative analysis provided a rich description of what participants were experiencing during the high challenge activity. As shown from the thematic analysis, excitement was the most common emotion experienced. Subjects reported being anxious and eager to try a new activity. As expected, control and trust emerged as important themes. These themes indicate that the students are conscious of their safety being somewhat reliant on external factors. Nervousness was another emotion strongly express throughout the activity. Finally, learning emerged to be an important
component for subjects. Participants frequently express excitement in learning new skills or gaining new insights about themselves for the activity. These data provide insight into some of the emotions/thoughts that are going through a student’s mind as he or she engages in a high challenge activity. These findings can be useful for programmers or facilitators hoping to facilitate a positive, life changing experience for their students or clients through exposing them to high perceived risk activities.

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References
Appendix A

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SEER 2014 ABSTRACT

Measuring the impact of daily routine and psychological resources on life satisfaction and happiness

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**Literature Review**

The pursuit of happiness is receiving increased attention in politics and academia. A boon in happiness research has revealed that individual attitudes, behaviors, and life routines may encourage or inhibit the emergence of happiness. Positive affect has been linked to: job satisfaction (Weiss et al., 1999), satisfaction with friends, self-confidence, spirituality (Lyubomirski et al. 2005), physical & mental health (Mroczek & Spiro, 2005), leisure satisfaction (Riddick, 1985), social capital and wisdom (Author & Author, 2012), and outdoor activities (Maas et al., 2009).

These studies investigated predictors of happiness, but often confound domains of life satisfaction with global happiness. For instance, a person may indicate that they are very happy with their life as a whole while also expressing dissatisfaction with their amount of leisure time. Previous research also lacks the depth of measures needed to elucidate the influence of psychological resources and routine activities on happiness. Much research (c.f. Seligman, 2002) suggests that a person’s happiness quotient is static, allowing for only marginal variation across their lifespan. Other research indicates that happiness is a malleable trait, and that one’s routine and their development of positive psychological resources (e.g. wisdom, spirituality, self-efficacy) can enhance his/her overall well-being (Author & Author, 2012; Frankl, 2006).

Experiential educators often promote happiness and its correlates (social capital, self-efficacy, wisdom) through intentional programming and non-traditional teaching methods. Outcome studies have shown promising results (Gillis & Speelman, 2008; Hattie et al., 1997) but programmatic reach is limited. A better understanding of the routines and resources that promote
happiness through non-formal, “incidental” educative encounters (Dewey, 1916) would help educators and programmers enhance the scope and duration of those outcomes. This study was conducted in cooperation with The Happiness Initiative, headed by John DeGraaf and a team of UC San Diego researchers. In their effort to promote happiness as a cultural indicator of progress, they have developed a Happiness Index, measuring ten domains of life satisfaction. The purpose of this study was to: 1) determine the influence of key domains of life satisfaction on global happiness, and 2) determine how routine leisure activities and psychological resources may influence satisfaction and global happiness.

Method

This study was conducted at a mid-sized private college in western Michigan. A survey was distributed to 1,000 randomly-selected college students via an online survey tool. A total of 380 students (61% female, Mean age = 21) completed the survey, resulting in a 38% response rate. The survey included: The Happiness Index (10 domains; 70 items), demographic information (3 items), wisdom (5 items), Locus of Control (LOC; 15 items), and routine participation in various leisure activities over the last month (5 items). The data were analyzed using Amos 20 to develop a Structural Equation Model. Using a hierarchical model-building process, the model was systematically constructed and reanalyzed after each step (Byrne, 2001). All constructs were initially tested for appropriate structural fit. Then, path analyses were conducted by adding paths to connect latent variables within the model.

Results

The final model (Figure 1) showed an adequate fit for the data (RMSEA = .06, CFI = .87). The variables accounted for 77% of global happiness, 75% of life satisfaction, and 23% of psychological resources. Higher satisfaction in four key domains of satisfaction (Psychological, Social, Physical, and Time) significantly influenced global happiness (.876). Psychological resources had a strong direct effect on satisfaction (.866) and a significant indirect effect on happiness (.759). Routine had a significant direct effect on resources (.480). The direct effect of routine on satisfaction was mediated by psychological resources. Finally, time spent outdoors, daily reflection time, and time spent volunteering had the strongest total effects on endogenous variables.

Figure 1. Final Model for the Path to Happiness
Discussion

These results provide insight into the influence of routines and psychological resources on the satisfaction and happiness of a college student sample. Overall happiness was strongly associated with domains of life satisfaction, especially the social and psychological dimensions. Wisdom, LOC and spiritual resources, in turn, had a potent influence on satisfaction and happiness. Given the strong emphasis placed on developmental and therapeutic outcomes through experiential programming (Gillis & Speelman, 2008), such educational methods may already have an indirect influence the subjective well-being of the participants. Further influence could be engendered through a change in participants’ daily routines.

While routines did initially influence satisfaction and happiness, psychological resources mediated that effect in this study. This could explain the lack of consistent findings regarding routines and happiness. While much “pop psychology” is dedicated to explaining simple steps to happiness, research remains dubious about the malleability of happiness and life satisfaction. The results of this study may help to demystify the relationship of routine activities and happiness, by illustrating the nature of meditational influence. Educators who wish to enhance psychological outcomes of programs and interventions could promote outdoor experience, volunteering, social capital, and daily reflection as routine activities that support personal development and happiness on a regular basis.

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A confirmatory assessment of a new outward bound outcomes instrument

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Whitney H. Montgomery, North Carolina Outward Bound School

Literature Review

Evidence-based practice and the important role of research is gaining attention in outdoor and adventure-based experiential education programming (Sibthorp, 2009) despite the difficulties that often accompany administering this type of field-based investigation (Bialeschki, Henderson, Hickerson, & Browne, 2012). Within this evidence-based climate, programs must often develop their own evaluation instruments, utilize existing tools, or partner with researchers in order to demonstrate the efficacy of their programs (Bobilya, Holman, Lindley, & McAvoy, 2010). One such program operating wilderness programs in the United States, Outward Bound (OB), recently experienced a major change as they returned from a centralized national organization to their original regional school model (Guerlin, 2013). In October, 2011 this organizational change stopped OB’s national efforts in the United States to design and implement an outcomes instrument linked directly to its educational framework. Luo (2011) had previously established construct validity and outcome model validation for the original Outward Bound Outcomes Instrument (OBOI) instrument. One of the regional OB schools, the North Carolina Outward Bound School (NCOBS), adapted the previously developed OBOI to match its specific educational outcomes and created the NCBO Outcomes Impression Survey (NCOBSCIS). A similar psychometric analysis conducted during a pilot study also demonstrated that the NCOBSCIS was a valid and reliable measure (Faircloth & Bobilya, 2013). The primary research question in the earlier pilot study examined differences in participants’ perceptions of their own Character Development, Leadership, and Environmental Awareness qualities prior to and immediately following participation in a NCOBS course (Bobilya, Faircloth, & Montgomery, 2013). In other words, participants were asked to report both their Pre and Post data immediately following their course in a retrospective Pre-test format. Based on the encouraging results of this pilot work, NCOBS revised their data collection schedule in 2013 to require that pre-tests be completed prior to participation in a course. The next step in understanding the usefulness of the NCOBSCIS was to assess the data that was collected using the tool in a true Pre-Post format. Therefore, the two-fold purpose of this study was to test the a priori factor structure of the NCOBSCIS provided by the pilot study, and to assess true change in participants’ scores following completion of an NCOBS course.

Methods

This study followed a mixed-method design with the quantitative questions as the dominant method (Creswell & Plano Clark, 2007). The sample for the current study was drawn from NCOBS participants who completed an open-enrollment wilderness course of four days or longer during June – August, 2013, provided consent and completed both the Pre and Post surveys (n = 189). NCOBS enrolled 572 total participants and ran 52 courses in that time frame. The current sample includes participants from 4-day courses (4 courses; n = 12), 7-day courses (1 course; n = 4), 8-day courses (5 courses; n = 20), 9-day courses (16 courses; n = 86), 14-day courses (9 courses; n = 36), 22-day courses (5 courses; n = 26), 28-day courses (1 course; n = 5). Participants were asked to provide consent and complete the pre-survey along with their other pre-course paperwork prior to arriving for their NCOBS course. The post-survey was completed in the field on the last day of their course. The NCOBSCIS is a 20-item measure using a 7-point Likert scale to rate the degree of
agreement with each statement (1 = strongly disagree to 7 = strongly agree). The measure can be scored to generate a total score, in addition to 3 separate factor scores for Character Development, Leadership, and Environmental Awareness. Higher scores indicate stronger agreement with the survey outcomes (Faircloth & Bobilya, 2013). In addition, the measure included various open-ended questions not included in this report.

Confirmatory Factor Analysis (CFA), using Maximum Likelihood (ML) estimation was conducted using SPSS (Bentler & Bonett, 1980; Marsh, Balla, & Mcdonald, 1988). CFA is a process that can be used to test the theoretical factor structure of the NCOBSCIS. The CFA reported here was grounded theoretically in the Exploratory Factor Analysis (EFA) structure previously reported (Faircloth & Bobilya, 2013). Goodness-of-fit (GFI) indices were examined to determine if the CFA structure matched the EFA structure. Changes in factor scores from Pre to Post were then assessed, and the moderating effects of age, course length, and gender were tested to determine if certain types or groups of people benefited more or less than others. Therefore, similar to the previous pilot study (Bobilya et al., 2013) a repeated measures ANOVA was conducted to compare Pre and Post means of the Character Development, Leadership, and Environmental Awareness factors. Additionally, a series of ANCOVA models were generated to assess gender, course length, and age as potential moderators.

**Results**

A CFA using ML estimation with varimax rotation and eigenvalues = 1 (Gorsuch, 1990; Tabachnick & Fidell, 2012), was fit to a 3-factor solution accounting for 52.95% of variance observed in the data. This 3-factor solution provided a good fit to the structure of the measure as indicated by the original OBOI guidelines with a significant Chi-Square $X^2(133, N = 175) = 271.43; p = .00$. The three factors correspond to the following categories: (1) Character Development (CD), (2) Leadership (L), and (3) Environmental Awareness (EA). Consistent with previous reports of the NCOBSCIS (Faircloth & Bobilya, 2013) individual item loadings are as follows: CD – items 1, 3, 4, 10, 12, 15, 17; L – items 5, 7, 8, 11, 13, 14, 16, 18, 19, 20; EA – items 2, 6, and 9. The Internal Consistency estimates for each of the three factors at Pre and Post were also in the acceptable range ($\alpha = .71 - .90$). Table 1 presents the results of a repeated measures ANOVA examining difference in Pre and Post Character Development and Environmental Awareness scores indicating significant change.

<table>
<thead>
<tr>
<th>NCOBSCIS factor</th>
<th>$\mu_{\text{Pre}}$ (SD)</th>
<th>$\mu_{\text{Post}}$ (SD)</th>
<th>(df)</th>
<th>$F$-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character Development</td>
<td>40.18 (6.30)</td>
<td>41.44 (5.60)</td>
<td>170</td>
<td>12.31**</td>
</tr>
<tr>
<td>Leadership</td>
<td>60.02 (7.26)</td>
<td>55.52 (5.67)</td>
<td>170</td>
<td>1.04</td>
</tr>
<tr>
<td>Environmental Awareness</td>
<td>17.02 (2.77)</td>
<td>16.58 (3.07)</td>
<td>170</td>
<td>16.45*</td>
</tr>
</tbody>
</table>

**p = .001, * p ≤ .05**

*Note. $\mu$ = Mean, SD = Standard Deviation*

Next, gender was tested as a moderator in an ANCOVA model examining difference in Post scores reported by male and female participants, while controlling for their Pre scores. There was no evidence of gender moderating program effects on the Character Development factor. The ANCOVA comparing men and women on Environmental Awareness revealed a marginal main effect for Gender $F(2, 187) = 2.84, p = .06$. Examination of marginal means revealed that female participants reported higher mean Post Environmental Awareness scores ($\mu = 17.52, SD = 2.47$) than did male participants ($\mu = 15.88, SD = 3.34$).
Additionally, Course Length was tested as a moderator in an ANCOVA model examining differences in Post scores by participants of different course lengths, while controlling for their pre scores. The ANCOVA comparing Character Development scores from participants of different course lengths was found to have a statistically significant main effect for Course Length, \( F(6,180) = 2.67, p = .02 \). Examination of marginal means suggests that participants of 4-day courses reported significantly higher mean Post Character Development scores following participation in a NCOBS course, controlling for Pre scores. Additionally, the ANCOVA comparing Environmental Awareness scores from participants of different course lengths showed a marginal main effect for Course Length \( F(6,188) = 1.87, p = .09 \). Examination of marginal means indicates that participants from 7-day courses reported higher mean Post Environmental Awareness scores, controlling for Pre scores. When it comes to differences in the ways that participants from different course lengths responded to the NCOBSCIS, it seems clear that courses of different lengths may have unique effects depending on the outcome of interest. There were no differences found for any outcome variable when examining age.

**Discussion**

These results indicate that participants reported improvements in Environmental Awareness through NCOBS participation but it appears that females experienced an even more profound shift, than did men, in the way they thought about their Environmental Awareness after their course. However, men and women benefit from NCOBS courses equally in the ways they report their own improvements in Character Development. Likewise, all participants reported improvements in Character Development and Environmental Awareness through NCOBS participation but it appears that courses of different lengths had differential effects on these two outcomes. Specifically, participants of four and seven-day courses reported higher mean scores in these two outcomes following participation. It is unclear why these shorter courses saw such different patterns of change. These findings may also assist our understanding of the interaction between Outward Bound course characteristics and participant characteristics. This study furthers our understanding of both the NCOBSCIS and the potential influence of program participation on these outcomes by asking participants to provide the Pre data prior to starting their course, allowing true Pre-Post questions to be asked about change in outcomes over time (Bobilya et al., 2013). Additionally, the current round of CFA moves our understanding of this tool from an exploration of the tool to a theoretically informed investigation of its psychometric properties (Gorsuch, 1990). This study provides further evidence of the validity and reliability of the NCOBSCIS and its factor structure. This instrument and these analyses may also be beneficial to other Outward Bound schools and outdoor adventure programs as they develop their own outcomes-based assessment tools.

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**References**


SEER 2014 ABSTRACT

Global explorers journaling and reflection initiative

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John Bennion, Brigham Young University

Introduction

Research suggests that youth participants in adventure, travel, service, leadership, environmental and other experiential programs often don’t receive sufficient opportunities or possesses the necessary skills to fully reflect on their experiences (Duerden, Witt, & Taniguchi, 2012). Reflective journaling may help students make meaning out of experience, but often group leaders are trained in recreation management, educational leadership, science, or other subjects, but not in the pedagogy of reflective journaling. Some leaders may believe that journaling requires skills that are innate or intuitive, so while many groups use a journal, they do not intentionally use this valuable tool for making meaning as efficiently as they might. Consequently teaching group leaders more intentional reflective journaling techniques may improve their efforts to incorporate this approach in their programming and ultimately help their youth participants get more out of the experiences they provide. Therefore, the purpose of this study was to test this assumption to see if reflective journaling interventions for youth program facilitators would have a positive impact on participant outcomes. The study addressed the following hypotheses:

1. Greater reflective thinking among participants would be associated with higher outcome scores.
2. Participants in the intervention group would show greater increases in reflective thinking than comparison group members.
**Methods**

This study involved a partnership with a non-profit, Global Explorers (GEx), which provides international immersion experiences for youth. Their programs are designed to teach youth participants principles of leadership, environmental awareness, service, and science. Programs consist of a preparatory course often held as part of an afterschool program and a two to three week international field expedition to locations such as Cambodia, Tanzania, and Peru. Before the Summer 2012 season researchers trained a sub-sample of GEx leaders in techniques for prompting reflective journaling. The participants in the programs overseen by these leaders over the course of the summer served as the intervention group for this study. The remaining participants served as the comparison group. Using this quasi-experimental design we tested whether this kind of training would make a difference on participant outcome scores.

In May 2012 one of the researchers met with GEx directors and trained the leaders of the intervention group in techniques for facilitating reflective journaling. The training involved teaching the following principles: 1) Meditative writing can increase the self-judgment that experience was meaningful, possibly prompting greater personal growth. 2) Leaders are meditative writing coaches who are willing to watch students, listen to them, engage them in conversation, focus on their growth, and create a relaxed environment. Leaders were directed to have the students write everyday (1/2 hour blocks of time, 1-2 times). They were taught to provide a writing time and place, seat the students in a circle, urge students to read out loud from their journals, and move students from guided exercises to less guided exercises. These leaders or writing coaches were taught how to design writing prompts to fit the curriculum goals for the specific program, because GEx uses different kinds of writing in different contexts. Coaches were taught the three general aims of journaling exercises: writing to reinforce and retain knowledge, writing to create bridges between knowledge and experience, and writing which prompts personal wandering or reflection. Journal coaches were asked to follow a specific process: discussing the prompt and linking it to the educational goals, giving the prompt, giving the students writing time, asking for volunteers to read their journal entries out loud, discussing each entry read to emphasize the educational goals.

During their expeditions the leaders used these techniques with the intervention group and kept a log describing the incidence and quality of the journaling experiences. The comparison group also used a journal, which is already a part of the GEx curriculum, but the leaders of those groups were not encouraged to give more time to journaling and were not trained in a process of facilitating journaling. Both the intervention group and the comparison group took the standard GEx program retrospective pre-test (Sibthorp, Paisley, Gookin, & Ward, 2007) evaluation, which included a number of reflective thinking scales. These included a four-item reflection scale and four-item critical reflection scale from a larger reflective thinking questionnaire (Kember et al., 2000) along with a two item non-purposive reflection scale developed by the researchers. Pre and post-test data were collected on the reflection and non-purposive reflection scales whereas only post-test data was collected on the critical reflection scale. Cronbach’s alphas ranged from .72 to .78 for the reflection scale, .82 for the critical reflection scale, and .65 to .69 for the non-purposive reflection scale. The outcome measures used in this study were ecological affinity (Larson, Green, & Castleberry, 2008), civic engagement (Lough, McBride, & Sherraden, 2009), and social and cultural awareness (Off Bound Adventures, 2011). Cronbach’s alphas for these scales ranged from .87 to .89.

**Results**

Data were collected from 154 intervention group members (112 females, 42 males, 1 did not report gender, mean age = 16.09) and 163 comparison group members (98 females, 65 males, mean age = 14.61). To test the first hypothesis, that greater reflective thinking among participants would be associated with higher outcome scores, three hierarchical regressions were conducted. For each
regression the T2 outcome was regressed upon gender and age (step 1), T1 outcome means of the same measure (step 2), and the three T2 reflection means (step 3). Results from the analysis supported hypothesis number one. The three reflection measures were significant predictors of all three T2 outcome means after controlling for gender, age, and T1 outcome means. Full results of these analyses are in table 1.

Table 1. Hierarchical Regression Results

<table>
<thead>
<tr>
<th>Step/Predictor (T2 Eco Affinity)</th>
<th>$R^2$</th>
<th>$R^2\Delta$</th>
<th>$\Delta F$</th>
<th>$B$</th>
<th>SE</th>
<th>$B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Gender</td>
<td>.00</td>
<td>.00</td>
<td>.05</td>
<td>.01</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td>-.001</td>
<td>.02</td>
<td>-.07</td>
</tr>
<tr>
<td>2 T1 Eco. Affinity</td>
<td>.287</td>
<td>.287</td>
<td>122.2**</td>
<td>.33</td>
<td>.03</td>
<td>.45**</td>
</tr>
<tr>
<td>3 Reflection</td>
<td>.464</td>
<td>.177</td>
<td>33.1**</td>
<td>.15</td>
<td>.04</td>
<td>.18**</td>
</tr>
<tr>
<td>Critical Reflection</td>
<td></td>
<td></td>
<td></td>
<td>.29</td>
<td>.05</td>
<td>.27**</td>
</tr>
<tr>
<td>Non-Purpose Reflection</td>
<td>.10</td>
<td>.05</td>
<td>.11*</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Step/Predictor (T2 Civic Engagement)</th>
<th>$R^2$</th>
<th>$R^2\Delta$</th>
<th>$\Delta F$</th>
<th>$B$</th>
<th>SE</th>
<th>$B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Gender</td>
<td>.045</td>
<td>.045</td>
<td>7.24</td>
<td>-.18</td>
<td>.06</td>
<td>-.11**</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td>.02</td>
<td>.02</td>
<td>.05</td>
</tr>
<tr>
<td>2 T1 Civic Engagement</td>
<td>.306</td>
<td>.26</td>
<td>113.9**</td>
<td>.29</td>
<td>.03</td>
<td>.44**</td>
</tr>
<tr>
<td>3 Reflection</td>
<td>.50</td>
<td>.20</td>
<td>39.8**</td>
<td>.22</td>
<td>.04</td>
<td>.27**</td>
</tr>
<tr>
<td>Critical Reflection</td>
<td></td>
<td></td>
<td></td>
<td>.26</td>
<td>.06</td>
<td>.22**</td>
</tr>
<tr>
<td>Non-Purpose Reflection</td>
<td>.13</td>
<td>.05</td>
<td>.12**</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step/Predictor (T2 Soc/Cul Awareness)</th>
<th>$R^2$</th>
<th>$R^2\Delta$</th>
<th>$\Delta F$</th>
<th>$B$</th>
<th>SE</th>
<th>$B$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Gender</td>
<td>.02</td>
<td>.02</td>
<td>3.09</td>
<td>-.06</td>
<td>.05</td>
<td>-.06</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td>.02</td>
<td>.01</td>
<td>.06</td>
</tr>
<tr>
<td>2 T1 Soc./Cul. Awareness</td>
<td>.190</td>
<td>.17</td>
<td>63.57**</td>
<td>.20</td>
<td>.03</td>
<td>.40**</td>
</tr>
<tr>
<td>3 Reflection</td>
<td>.294</td>
<td>.10</td>
<td>14.71**</td>
<td>.07</td>
<td>.03</td>
<td>.12*</td>
</tr>
<tr>
<td>Critical Reflection</td>
<td></td>
<td></td>
<td></td>
<td>.14</td>
<td>.04</td>
<td>.18**</td>
</tr>
<tr>
<td>Non-Purpose Reflection</td>
<td>.09</td>
<td>.04</td>
<td>.13*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Significant values and unstandardized and standardized regression coefficients reflect the results of the final regression equation. *p < .05. **p < .01.

In order to test the second hypothesis, that participants in the intervention group would show greater increases in reflective thinking than comparison group members, ANOVA’s were conducted on the change in reflection and non-purposive reflection and T2 critical reflection means between the intervention and comparison groups. Results indicated no significant differences at the .05 probability level between the two groups on any of the reflection measures.

**Discussion**

The results from this study partially supported the stated hypothesis. While reflection measures were positively related to end of program outcome measures, no differences were found between the intervention and control groups on the three reflection measures. In other words, reflection did appear to influence program outcomes but the reflective journaling intervention did not seem to significantly impact the measure reflection constructs. This may have been due to a variety of factors related to the implementation of the reflective journaling, including lack of adherence to the stated protocols (Dane & Schneider, 1998) and inadequate program differentiation between the intervention and control groups (Dusenbury, Brannigan, Falco, & Hansen, 2003). For example, intervention leaders may not have fully implemented the designed reflective journaling protocols and or the journaling that was occurring in the control group was too similar to the reflective journaling done in the intervention group. While this study provides evidence of the positive relationship between reflective thinking and participant outcomes of experiential
programming, more research is needed to understand how to effectively promote the development of reflective thinking through journaling and other within program interventions.

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**References**


**SEER 2014 ABSTRACT**

**Social connection among adolescents in outdoor adventure education**

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*John Gookin, The National Outdoor Leadership School*

**Literature Review**

The social group is recognized as a critical component to the outdoor adventure education (OAE) experience (Walsh & Golins, 1976) and plays an incredibly important role in the type of experience students have on these courses (Goldenberg, McAvoy, & Klenosky, 2005). One aspect within the social group that is of importance, particularly to adolescents, is the development of interpersonal relationships with others in their group.

Interpersonal relationships or “connecting” with peers are a central focus for youth navigating the uncertainty of adolescence (Scholte & Van Aken, 2006). Social relationships have the ability to strengthen, solidify, and compliment an adolescent’s development and understanding of self (Pugh & Hart, 1999). However, the development of interpersonal relationships is not always
easy for adolescents because of the biological, psychological, and social changes they are experiencing. If not fostered appropriately, social relationships can be developmentally detrimental and have long-lasting negative impacts (Pugh & Hart, 1999).

Due to the nature of OAE and the importance of social connections for adolescents, we chose to operationalize social connections within a group identification framework. Historically group identification has been theorized as a multi-dimensional construct. Two dimensions that have been consistent throughout the literature have been the cognitive and affective dimensions. The affective dimension stems from the group cohesion literature and represents an individual’s emotional attraction toward others in the group. The cognitive source stems from the social identity literature and represents an individual’s attachment to the group.

Four variables that represent different components of the group and theoretically related to group identification include goal conflict, leadership consideration, social status, demographics, and time. Goal conflict represents the difference of goals students have with other students or instructors (Locke & Latham, 2002). If students have conflict with others in terms of the outcomes they seek, the ability to identify with others may be hindered. Instructors have also been widely recognized as an important component within the social group (Schumann, Paisley, Sibthorp, & Gookin, 2009). Leadership consideration refers to the ability of the leader to maintain close relationships with students that are characterized by concern, respect, and the expression of appreciation and support for students (Judge, Piccolo, & Ilies, 2004). This person-centered leadership approach, as opposed to task-centered, should lead to stronger social connections between students (Pillai & Williams, 2002). As groups develop and students interact with one another, a social hierarchy emerges and differentiates members of the group based on status. Others have looked at groups in the wilderness context and found that individuals had lower levels of attraction toward the group when perceived by others as having less status (Eys, Ritchie, Little, Slade, & Oddson, 2008). The student demographics that were of interest to this research were sex and whether a student was receiving a scholarship (a proxy for socioeconomic status). Group level measures of these were also taken as sex ratio (the number of females per course) and scholarship ratio (the number of students on a course receiving scholarship). Lastly, OAE courses vary in duration and these different components may have different levels of influence as the course progresses in time. Therefore, the purpose of this research was to understand the importance of goal conflict, leadership consideration, social status, demographics, and time had in relation to the affective and cognitive dimensions of group identification.

**Methods**

In the summer of 2013, data were collected from 22 groups (which consisted of either all students receiving scholarship, no students receiving scholarship, or a mix of both) who participated in a 30-day backpacking course with the National Outdoor Leadership School (NOLS). Questionnaires and social network analysis data were collected at approximately days 10, 20, and 30 of the course. The affective and cognitive sources of group identification were measured using The Group Identification Scale (Henry, Arrow, & Carini, 1999). Leadership consideration was measured using a sub-scale of the Leader Behavior Description Questionnaire (LBDQ-XII; Stogdill, 1963). Goal conflict was measured with items that were written by the authors that assessed if student goals were in conflict with other students on the course and their instructors. Lastly, social status data were sociometrically collected by asking students to choose three members from their group they would prefer to be with based on a particular wilderness scenario.

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

H1: Group identification will be negatively related to goal conflict and positively related to leadership consideration, and social status.

H2: Group identification will be different for females than males and be positively related to the sex ratio.

H3: Cognitive identification will be positively related to the scholarship ratio for students who are receiving scholarship.

H4: Students receiving scholarship in “all scholarship” groups will have a higher level of cognitive identification than students receiving scholarship from “mixed scholarship” groups.

Results

The affective dimension showed significant predictors at level one and level two. For the level one predictors, the results suggest that goal conflict with others had a significant negative relationship ($\beta = -0.11; p < .001$) and social status nominations had a significant positive relationship ($\beta = 0.03; p = .016$) with the affective dimension. That is, group identification decreased the more goal conflict students had with one another and group identification increased the more social status nominations students received. For the level two predictors, the results suggest that there was a significant positive relationship with leadership consideration ($\beta = 0.40; p = .036$) and sex ratio ($\beta = 0.54; p = .039$).

The results for the cognitive dimension suggest that there were two significant level one predictors. Goal conflict with others was negatively related to identification ($\beta = -0.30; p < .001$) while social status was positively related ($\beta = 0.04; p = .05$). To test hypothesis three, a scholarship ratio by students receiving scholarship cross-level interaction was tested but was not significant. In addition, we hypothesized that there would be a difference between students receiving scholarship on “mixed” courses and “all” scholarship courses and that this difference would change over time. A 2 (group) x 3 (time) MIXED ANOVA was conducted. The group x time interaction was significant ($F(1, 42) = 6.17; p = .05$). Post hoc tests suggest that students who were in a group with all students receiving scholarship had higher levels of cognitive identification at time 1 (day ten) than the mixed group, but that this difference diminished as the course progressed. Using Cohen’s $d$, a large effect size ($d = 0.77$) was found at time 1.

Discussion

The purpose of this study was to better understand what aspects within the social group facilitate or deter adolescents from making social connections in OAE. These relationships can be difficult to predict due to the complex individual differences, group differences, and length of time students spend on OAE courses. Two individual level variables were statistically significant in both dimensions while two group level variables were statistically significant in only the affective dimension. Goal conflict was the strongest predictor in both dimensions and research that has looked at goal conflict and psychological well-being has shown that goal conflict is associated with negative affect (Boudreaux & Ozer, 2013). The findings in this study showed a negative relationship between goal conflict and group identification. With the plethora of outcomes that are possible for students to achieve, it is not surprising that students may have conflict with one another based on these motivations. The nature of the conflict between students is in need of further understanding.

Social status nominations were also related to increases in both dimensions of group
identification. The more social nominations students received from others in the group, the more they identified both affectively and cognitively. One of the fundamental aspects of developing positive affect is the formation of meaningful social bonds (Baumeister & Leary, 1995). Jostad, Paisley, Sibthorp, and Gookin (2013) looked at reasons why students on OAE courses preferred to be with others in social situations. Based on the relationships at the end of the course, two of the three themes identified were: “connections with others” and “experienced best times with.” These results suggest that relationships at the end of the course are based on the experiences, memories, and social and emotional connections students have with one another.

Leadership consideration and sex ratio were significant predictors at the group level for the affective dimension. Schumann et al. (2009) identified both instructor behaviors and traits that impacted student learning on NOLS courses. One of the important characteristics noted was empathy, which they identified as the “instructors’ ability to listen to their [student] concerns and make them feel validated and understood” (p. 22). When students see and feel their instructor show appreciation and support, they may be more likely to replicate these actions toward others, which in turn can lead to a greater affective state for individuals. The other group level variable that was significant was the sex ratio. Little research has been conducted on the ratio of males and females on a course, but this result suggests that the more females that are on the course, the more students affectively identify with one another.

Although time was modeled for both dimensions, it failed to significantly predict any changes. This may have been because the first measurement was given at day ten of the course, whereby a student’s identity may have already developed. However, one finding that was interesting was that students receiving scholarship in the “all scholarship” groups cognitively identified more with others in the group only at day ten than students receiving scholarship from “mixed” groups. Future research should consider the timing of measurement when investigating the development of individual and group level processes.

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References


**SEER 2014 ABSTRACT**

The impact of a wilderness therapy program on attachment, separation and mental health functioning in adults

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*Joanna E. Bettmann, The University of Utah*  
*Michael DeLuca, The University of New Hampshire*

**Introduction**

Wilderness therapy programs, also referred to as Outdoor Behavioral Healthcare (OBH), utilize wilderness experiences provided by licensed mental health professionals to meet the therapeutic needs of clients (AEE, 2014). Wilderness therapy is an effective, alternative treatment option for individuals with emotional, behavioral and substance abuse problems (Russell, 2003). In wilderness therapy programs, youth engage in prolonged wilderness expeditions which include individual therapy, group therapy, outdoor challenges, healthy diet, exercise, and personalized treatment plans (Bettmann & Jasperson, 2008). Research indicates that wilderness therapy consistently improves the mental health of youth (Norton et al., 2014); however, there is little outcome research regarding young adults in wilderness therapy.

Among the few studies which have been completed, findings support the use of wilderness therapy with adults. Hyer, Boyd, Scurfield, Smith and Burke’s (1996) study of a five-day Outward Bound experience as an adjunctive treatment with inpatient PTSD veterans found participants gained in the areas of self-esteem, problem-solving, and behavior change. Similarly, Paxton and McAvery (2000) and Goldenberg, McAvoy, and Kenosky (2005) found that adult participants reported positive therapeutic impacts of their Outward Bound programs specifically in terms of increased self-awareness and self-efficacy. Finally, Hoag, Massey, Roberts and Logan’s (2013) three-year evaluation of the impact of a wilderness program for approximately 300 adult participants found significant decreases in clinical levels of dysfunction from intake to discharges, as well as significant changes on measures of life effectiveness, motivation for therapy, therapeutic
alliance, and dysfunctional attitudes. This study was the first to specifically evaluate wilderness therapy with adults. Clearly, more research is needed.

The present study aimed to add to the outcome research on adults who attend wilderness therapy programs by specifically exploring the impact of treatment on mental health functioning, attachment and independence from parents. This is the first study to consider these three factors and their interactions in contributing to outcomes of wilderness therapy.

Methods

The present study utilized a longitudinal one-group design to explore the outcomes of 150 adults participating in one wilderness therapy program in the Rocky Mountain Region of the U.S. Study participants consisted of clients ages 18 and over enrolled in the wilderness therapy program. The mean age of clients was 20.0 years (SD = 2.1), with clients ranging in age from 18 to 28 years. There were more male (65.0%) than female participants (35.0%). The majority of participants were Caucasian (94.0%). The three most common Axis I diagnoses for clients, most of whom had co-morbid issues (96.7%) included Depression (68.8%), followed by Substance Dependence (52.7%) and Substance Use (47.7%).

Data was gathered at intake and discharge using multiple measures to assess program outcomes with participating adult clients. The Adult Attachment Scale (AAS: Collins & Read, 1990), an 18-item self-report survey, was used to provide information regarding the participants’ feelings about attachment relationships. The Outcome Questionnaire 45 (OQ-45: Vermeersch, Lambert, & Burlingame, 2000) was administered to gauge participants’ self-reports of general mental health and level of functioning. The Psychological Separation Inventory (PSI: Hoffman, 1984), a 138-item self-report instrument, measured psychological individuation from one’s parents. Paired samples t-tests with Bonferroni corrections to minimize Type I error were conducted comparing means from clients at intake and discharge.

Results

At admission, wilderness therapy young adult participants’ self-reported levels of clinical dysfunction measured by the OQ Total Score and subscales of Symptom Distress, Interpersonal Relations and Social Role were above the clinical cut-offs normed by the instrument creators. At discharge, all OQ scores were below the associated clinical cut off scores except Social Role with a discharge mean of 13.9 (SD = 3.3) which was at the clinical cut off of 13. Improvements reported at discharge for all the OQ scores were large enough to be considered statistically significant (p < .001), with moderate to strong effect sizes (.65 – 1.52). In addition, improvements on the OQ Total Score and Symptom Distress subscale were large enough to be considered clinically significant as measured by the Reliable Change Indices (RCI) for each score.

At discharge, participants reported significant changes in attachment as measured by the AAS and PSI. The AAS Total Score increased significantly [t(118) = 3.95, p < .01, d = .52], and mean levels of Depend which measured participants’ belief in others being there or depended upon when needed increased significantly [t(117) = 4.44, p < .001, d = .51]. In addition, mean levels of Close which measured participants’ comfort with intimacy or closeness increased significantly [t(143) = 6.53, p < .001, d = .77], yet there were no significant differences reported for Anxiety which measured how anxious participants’ felt about being abandoned or not loved. Participants’ scores on the PSI showed that mean levels of Separation from Mother increased significantly [t (119) = 4.77, p < .001, d = .71] and Independence from Father decreased significantly [t(89) = -2.87, p < .05, d = .26]. There were no differences in Separation from Father or Independence from Mother.
Discussion

Consistent with the research by Hoag et al. (2013) the present study found that wilderness therapy significantly improved the mental health functioning of young adult clients. In addition, young adults reported important changes in the quality of their attachments. Findings suggest that wilderness therapy significantly improved young adult clients’ comfort with intimacy and closeness as well as their increased sense in the dependability of others. Considering the intense nature of living in a small group out of doors for extended periods of time, it may be that this setting offered young adults opportunities to begin to depend on and become close with others in a safe and supportive environment and gain confidence in their skills in these areas.

It is unclear why young adults’ sense of positive separation for mom increased significantly, but not for their fathers or why independence from father decreased significantly, but not for mother. Research has shown that these two subscales represent different unrelated constructs. The Separation subscale relates more to “hopeful, non-anxious, and unresentful reactions” to separation experiences while the Individuation subscale relates to an individual’s ability “to manage their own daily responsibilities, freedom from needing parents' approval and emotional support, and beliefs or values that are distinct from those of their parents” (Rice, Cole & Lapsley, 1990, p. 200). In fact, Rice et al. (1990) found that positive separation, not individuation was significantly related to positive adjustment in young adults. Hence, young adults may show positive psychological functioning when they begin to separate from their parents, even though they may still not be emotionally and functionally independent. Clearly, more research is needed to better understand these findings; however, this research begins to shed more light on how wilderness therapy impacts not only the psychological functioning of young adults, but also how it impacts attachment and their ability to be independent from their parents.

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References


**SEER 2014 ABSTRACT**

Enhancing Diabetes Management through Experiential Education

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**Literature Review**

Research has demonstrated that the effective management of Type 1 diabetes leads to long-term positive health outcomes (DCCT, 1993; Williams, Friedman, & Deci, 1998). In spite of this evidence youth have demonstrated an inability to manage their diabetes (Hill & Sibthorp, 2006). This lack of self-care can lead to emotional issues such as aggression, antisocial conduct, anxiety, and depression. Poor diabetes care can lead to medical complications including kidney failure, stroke, amputation, and even death (Bryden et al., 2001). These problems are only magnified by the fact that the rate of Type 1 diabetes among youth continues to grow, with rates expected to increase 77% over the next 25 years (Imperatore et al., 2012). The troubling consequences of poor diabetes care are only magnified by a recent meta-analysis of 569 studies found that youth with chronic disease demonstrated significantly more mental, social, and academic problems than their healthy peers (Pinquart & Shen, 2011).

The link between high-quality diabetes self-management now, and improved quality of life in later adulthood is often unclear for youth afflicted with this disease. One promising venue to enhance diabetes care among youth is through the use of theory-based camps, for example those camps utilizing self-determination theory as their programming rationale. Several studies have shown that theory-based camps enhance self-esteem, self-image, and motivation among those youth afflicted with chronic diseases such as diabetes (Brannan, Fullerton, Arick, Robb, & Bender, 2002; Hill & Sibthorp, 2006; Hill, Ramsing, & Hill, 2010; Taylor, Piatt, Hill, & Malcom, 2012). However, this research is limited in scope specifically relating to the psychosocial implications and outcomes of youth participation in diabetes camps (Hill & Sibthorp, 2006).

This study builds on previous research into the benefits of diabetes camps for youth, including the development of behaviors that positively influence their disease management. We hypothesize that the mechanism of experiential learning (learning by doing) will lead to enhanced autonomy, relatedness, and competency in those youth afflicted with diabetes. Learning will be facilitated through “traditional” education seminars facilitated by medical professionals relating to insulin and glucose management; camp experiences such as canoeing, archery, rock climbing, and a high element challenge course; and the development of peer relationships with those who are experiencing the same issues.
Methods

Participants were recruited from a 3-day family diabetes camp held in southeastern Virginia that included parents, siblings of campers, and campers. 101 individuals participated in the camp. Campers' ages ranged from 6-17 years ($M = 10.63$ years). Campers were primarily male (46.7% Female), had an average of 3.61 years since their Type 1 diabetes diagnosis ($SD = 2.84$ years), and their last known HbA1C level averaged 7.78 ($SD = 1.49$). HbA1C levels are used to monitor glucose concentrations over extended time periods, a score lower than six is typically ideal. Due to issues with camper completion of survey instruments (pre-program) when signing up for the camp, some campers completed only the post instrument. A total of 23 campers participated in the study prior to the diabetes camp and 34 immediately following camp completion. All participants in this study were diagnosed with Type 1 diabetes. The non-diabetic campers, such as siblings and parents, were excluded from the data collection process.

Data was collected from campers via self-report using the Family Diabetes Camp Questionnaire which contained four sub-scales: Diabetes Competence, Autonomy Support, Camper Relatedness, and Camper Satisfaction. This scale was designed for this study; however, all subscales have been utilized and validated in other similar studies. Data were collected from camp participants and parents (although only camper outcomes are reported in this paper) using three-item Basic Psychological Needs Scale (BPNS) to measure camper relatedness, the four-item Perceived Competence Scale (PCS) on their perceptions of their own diabetes management, and a camper satisfaction scale. The BPNS was administered as a post-test only, and has been used in previous diabetes camp studies (Hill, Ramsing & Hill, 2007). The PCS, administered as a pre-posttest for camp, has been previously validated as an accurate measure of competence, one of the three psychological needs within Self-Determination Theory (Hill, Ramsing & Hill, 2010; Williams, Rodin, Ryan, Grolnick, & Deci, 1998) with Likert questions on a 1-6 (Not True - Very True) scale that included such questions as “I feel confident in my ability to manage my diabetes.”

The Family Diabetes Camp Questionnaire (BPNS, PCS, and satisfaction) was completed by 23 campers prior to the diabetes camp and 34 immediately following camp completion. Data were also collected relating to camper satisfaction using questions such as “I enjoyed diabetes camp” and “I plan on returning to diabetes camp next year.” Finally data was collected post program relating to relationship development with fellow diabetes diagnosed campers including questions such as “While at camp I felt cared about” and “I made new friends at camp.”

Pre-Program Data. The minimum amount of pre-program data for factor analysis was present as indicated by a sample of 23 participants for four items measuring diabetes competence (a ratio of over five cases per variable). The factorability of the 4 PCS items (diabetes competence) were examined. Exploratory factor analysis of the pre-program 4 item scale indicated all items correlated with each other at least .5 ($p \leq .01$). The Kaiser-Meyer-Olkin measure of sampling adequacy was .749, Bartlett’s test of sphericity was significant ($\chi^2 (6) = 48.594, p \leq .01$). Furthermore, communalities were above .5, confirming that all four items shared common variance. These analyses indicate that factor analysis for pre-program data was deemed appropriate.

As the primary function of the pre-program factor analysis was to compute a composite score for diabetes competence, principal components analysis (PCA) was utilized. Eigenvalues indicated that the three item pre-program factor explained 74% of the variance. This one factor solution was desired as it was in line with both prior research (Williams, Grow, Freedman, Ryan, & Deci, 1996; Williams, Rodin, Ryan, Grolnick, & Deci, 1998) and showed a distinct single factor and leveling off upon examination of the scree plot eigenvalues. PCA results indicate strong item loadings on only one factor and did not cross load onto other potential factors. Internal consistency of items was measured using Cronbach’s alpha and a strong alpha was present ($\alpha = .877$) for the factor of pre-program diabetes competence ($M = 5.11, SD = 1.05$). These results indicate that the pre-program diabetes competence measure is both valid and reliable.
Post-Program-Data. Participants were surveyed on their perceived competence, relationship development with peers, and program satisfaction using a self-report survey method. The factorability of the four post-program Perceived Competence Scale (PCS) items and three-item peer relationship development (Basic Psychological Needs Scale (BPNS) were examined. However, upon initial examination it was indicated that one PRD item was not a good fit with this particular sample and as such was removed from further analysis. The minimum number of cases were present for factor analysis as indicated by a sample of 34 respondents post program for six total items (a ratio of over five responses per item). The factorability of the four post-program PCS items (diabetes competence) and PRD (two items) were examined. For the post program (4 items) was observed that all items correlated at least .5 with a minimum of one other item ($p \leq .05$). The Kaiser-Meyer-Olkin measure of sampling adequacy was .721 and Bartlett’s test of sphericity was significant ($\chi^2 (15) = 106.91, p \leq .01$). Furthermore, communalities were above .5 indicating items shared common variance. As a result of these analyses, factor analysis was deemed appropriate to validate the measures used in this study. Eigenvalues indicated that a two factor solution (6 total items) explained 79.4% of the variance. As with the pre-program data, this result was desired as it was in line with prior scale development and research. This two factor solution was further illuminated by examination of the scree plot which indicated two distinct factors and then a large drop. Strong internal consistency was found for the Post PCS items using Cronbach’s Alpha ($\alpha = .904$) and a moderate bivariate correlation was present for the PRD items ($r = .521, p = .002$). As a result of these analyses both the Post PCS ($M = 5.15, SD = 1.02$) and the PRD ($M = 5.82, SD = .37$) are both valid and reliable.

Results

Data were examined using Pearson’s correlations to explore potential relationships. A one-way ANOVA was conducted to determine if there was a statistical difference between pre-diabetes camp and post diabetes camp participants’ perceived competence levels (PCS). Campers reported significantly higher levels (albeit a minimal increase) of perceived competence from pre camp ($M = 5.11, SD = 1.05$) to post camp ($M = 5.15, SD = 1.02$), a mean increase of .04, 95% CI [4.78, 5.68], ($F(1, 11) = 8.56, p = .014$, partial $\eta^2 = .438$).

The next analysis explored differences between groups in terms of camp efficacy (an increase in perceived competence) post camp. Campers were divided into three groups based on their time since diagnosis in years (Low Experience 0 - 24 Months, $n = 9$; Moderate Experience 25 - 48 Months, $n = 10$, and Highly Experienced 49 - 160 months, $n = 9$). This division was accomplished by examining frequency tables and histograms for “natural” breaks in the data. There were no outliers and the data was normally distributed for each group, as assessed by box plot. There was homogeneity of variances as assessed by Levene’s statistic ($p = .075$). PCS scores were statistically different between the three experience level groups, $F(2,24) = 5.25, p = .013$, partial $\eta^2 = .44$. PCS scores decreased from low ($m = 5.61, SD = .55$), to moderate ($m = 5.31, SD = 1.01$), to high experience ($m = 4.25, SD = 1.15$) in that order. Tukey post-hoc analysis revealed the decrease in PCS score from low to high (1.36, 95% CI (.26 to 2.46)) was significant ($p = .013$) and the moderate to high experience group indicated a decrease in PCS score (1.06, 95% CI (-.045 to 2.16)) at a level approaching significance ($p = .062$). No other group differences were statistically significant.

A simple linear regression was performed to examine the effect of post program perceived competence (PCS) on relatedness (TPRD). This regression established that a participant’s perceived competence level could predict participant relatedness level, $F(1, 30) = 7.32, p = .011$ and PCS level accounted for 16.9% of the explained variability in relatedness levels. The regression equation was: perceived competence level = $0.857 + 0.777x$ (relatedness level).
Discussion

The current study was designed to test the application of self-determination theory within a family diabetes camp. Over the three day camp, overall campers felt an increase in perceived competence with regards to managing their Type 1 diabetes. It is also important to note that individuals who had the newest diagnosis of Type 1 diabetes (those with low level of experience between 0-24 months) gained the most from camp with perceived competence, followed moderate and high experience respectfully. Through this, it was also found that when campers improved their perceived confidence this could predict relatedness levels. Finally we also found that when campers had higher levels of relatedness (connections with others) there was a statistically significant predictor of their satisfaction level with the camp. These results indicate that experiential education is a powerful mechanism for the development of self-efficacy and relationships, particularly for those afflicted with chronic diseases.

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References


SEER 2014 ABSTRACT

Development of spiritual empowerment in experiential education: an exploratory study of people’s experience during outward bound winter course

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Literature Review

As spiritual growth becomes a key constituent in higher education, numerous pedagogical discussions have been made to incorporate the conception of spirituality into the educational realms in terms of the acquisition of religious pluralism, development of the ethical values and purpose of life (Tisdell, 2003). In this regard, we note that the field of experiential education has demonstrated constructive outcomes that lead to the increased spiritual development (e.g., Henderson, 1996, 2000; Hoover, 2007; Martin, Leberman, & Neill, 2002). However, there is still little empirical evidence how the spirituality can be expressed and fostered among participants. That is, it is necessary to develop a solid theoretical framework and research methods to systematically investigate the spiritual linkage to experiential education in order to advance the theoretical, methodological, and practical implications in experiential education (Henderson, 2000; McKenzie, 2000, 2003).

Discussing spiritual empowerment in experiential education, we note that connectedness to the natural environment accounts for a substantial part of experiential education (Carver, 1996). A number of experiential education programmes depend on natural environment experience—adventure education, survival training, and outdoor orientation programmes. Studies have presented the acquisition of spirituality in the context of natural environment and wilderness experience (e.g., Bobilya, Akey, & Mitchell, 2009; Paxton & McAvoy, 2000; Uhlik, 2009). We found more research in a different field of study, such as environment psychology, that reinforces the positive relationship between spirituality and nature (Kaplan & Kaplan, 1989). For example, Fredrickson and Anderson (1999) suggested that being in nature is an important antecedent of spiritual development and well-being. We wondered in what ways experiential education programmes, in particular nature experience oriented, facilitate the opportunity for spiritual development to pave the way to incorporate natural environment and spirituality into the context of experiential education.

Building on this idea, the current inquiry explores the dynamic mechanism of spiritual experience among participants in an Outward Bound winter field trip. The objectives of our study are twofold: 1) to provide better understanding of the meaning of spirituality arising from experiences in wilderness-like environment, and 2) to develop a theoretical framework and research method in the field of experiential education. Multi-method assessments used in our current study provided quality data which turns to the evidence of a strong association between natural environment experience and improved sense of spirituality that underpins the constructive outcomes of experiential education. It is important to note that we here regard natural environment, spirituality, and experiential education as equally important concepts; while this current study focuses more on the findings related to the spiritual experiences among winter course participants.

Methods

Our research was initiated during a winter field trip course entitled “Life Is a Gothic Dog”, organized by the Vacation School of Lipnice, Outward Bound Czech Republic (January and March 2012). The main part of the course was to wander on snow shoes for two weeks in the Bukovské Hills in the Poloniny National Park at the border of Slovakia, Poland, and Ukraine. The naturalistic inquiry serves as a basis for our investigation which draws on qualitative data achieved
by several techniques such as participant observation, and in-depth and unstructured interviews (Lincoln & Guba, 1985). Additionally, we employed a method of Systemic Constellations to further our findings and research methods.

The main research stage was realized in September 2012, a few months after the course. A total of 19 winter course participants were invited for a research weekend. The research weekend aimed 1) to evaluate the outcomes of the course participation, and 2) to conduct individual interviews and Systemic Constellations for data construction. The unstructured interview with each participant took approximately 45 minutes and was voice recorded for accuracy and for transcription purposes with the participants’ consent. The transcribed interviews were assigned open codes for a context analysis, in which semantic units and subcategories were identified (Lincoln & Guba, 1985).

A technique of Systemic Constellations was used to capture non-verbalized/non-discursive aspects of the participant’s experiences during the course. Systemic Constellations is a method that broadly used for psychiatric assessment, therapeutic intervention, and coaching in education (Hellinger, 2002, 2003; van Kampenhout, 2001; Ulsamer, 2003). A trained and educated constellator was involved in the research week to conduct the Systemic Constellations. Throughout the Systemic Constellations, the study participants were allowed to demonstrate their experience freely, using body expression and practice to build the empathy for a representative each respondent selected to play. We realized a total of 9 Constellations and the procedure of each Constellation accompanied with verbal statements was video recorded for interpretation. The interpretation of the Constellations was consistent with the data achieved through the interviews, but a more internalized and deepened perceptual image was achieved which increases the clarity and understanding of the participants’ experience.

**Results**

On the basis of the analysis, four different thematic categories interpreted as experience subjected to the spiritual dimensions were created. The most frequently demonstrated spiritual aspect among the respondents was the inner focused thoughts. Throughout the course, the participants were to spend time for self-reflection and searching the purpose of life. Research has shown that the process of searching for the purpose and meaning of life is highly relevant to the phenomenon of spirituality (Jirásek, 2013; Stifoss-Hanssen, 1999). This aspect induced the participants to their natural behaviors which allowed them to experience ‘real-me.’ The respondents stated that the journey supported and stimulated the process of the reflection of themselves, their everyday life, and even contemplation for the future direction and life satisfaction.

We also found that the participants deepened their spirituality reciprocally interacting with one another. The journey involved limited resources, so each participant was to increase patience and concession by learning and helping each other to survive the difficulty in a given situation. Emotionally and physically demanding situations during the course allowed the participants to develop a sense of community and strengthen the tie among them. This allowed the journey to be more open-mined, amiable, and sociable atmosphere, so the participants experienced feelings of resonance and harmony, stronger empathy and willingness to cooperate. The participants regarded the mutual relationships with others as unaffected and unbounded, which is symbolized by “clear open heart.” Robinson (2007) stated “response of the person to the other then becomes an embodiment of spirituality, life meaning in action” (p. 29). That is, throughout the winter course, spirituality was cultivated and manifested by learning and respecting other people’s need and desire.

During the course, the participants repeatedly expressed their doubt as to whether they would be able to succeed the winter course. Each participant was forced to focus on their basic needs, and learned to admit and manage critical situation. They were to overcome one’s limitation...
along with the demanding endeavor such as exhaustion, tiredness, and lack of sleep. For the participants, coping with fear of the cold, expected physical performance, social inclusion, and uncertainty is beyond the accustomed boundaries of certainty and safety which is accompanied with a sense of comfort and contentment. All of this suggests that the participants were more likely to develop and realize self-transcendence throughout the course.

The participants expressed a strong attachment to the natural environment and appreciated the magnificence of untouched nature becoming aware of an ecological way of life. The participants experienced the magnificence of untouched nature and felt how they are frail creature within a nature which humbled them. Intense and consistent communion with winter landscape allows the participants to develop the perception of the beauty of nature in esthetic form (e.g., awe and pathos) and experience of the sacred (e.g., holy quietness). Many reported they perceived nature as a part of oneself or the whole, the integrity and complexity of life, a sense of belonging or a feeling of home.

**Discussion**

A number of the most salient themes of spirituality, such as pursuing inner authenticity, and important if more subtle themes, have become apparent. The winter field trip course enabled the participants to encounter the raw reality of the outdoor environment by forcing them to involve their self-protective mechanisms for survival in the difficult natural conditions. An intense and cohesive social world was created during the course that the participants develop a sense of gratitude from shared and joint responsibility. Challenge of endurance and physical limits led the participants to realize self-perseverance and transcendence. All of this suggests that participants’ involvement of the winter course is a manifestation of spiritual experience in many different manners. Findings of this current study further our understanding of the perceptual facets of spirituality by providing insightfulness in what ways natural environment empowers a sense of spirituality. This current investigation added qualitative evidence of the relationship between spirituality, natural environment, and experiential education. Future research should be able to develop an empirical model incorporating the three. Our study also provides several implications for theory and methodology, and practical suggestions in the field of experiential education. The most unique contribution of our research was that we examined the applicability of the Systemic Constellations as a research means to the qualitative research. Our research and quality data achieved from the Systemic Constellations provide the evidence of the benefit of using the Systemic Constellations; future research can use this tool in the wide range of experiential education.

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**References**


**SEER 2014 ABSTRACT**

**Day Hikers’ Self-reported Reasons for Hiking in the Arizona Wilderness**

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**Review of Literature**

The wilderness of North America has evolved and so have the people who explore it. Wilderness once ‘needed’ to be conquered, and now it is a destination for relaxation, revitalization, and recreation. White Europeans defined wilderness as uncontrolled, mystical, and evil, for they “feared what he [sic] did not control or understand” (Nash, 2001, p.8). United State citizens see the
wilderness differently now than our predecessors. The word, wilderness, “the root seems to have been ‘will’ with a descriptive meaning of self-willed, willful, or uncontrollable. From ‘willed’ came the adjective ‘wild’ used to convey the idea of being lost, unruly, disordered, or confused” (Nash, 2001, p. 1). The word wilderness is a quality or mood as suggested by the suffix ‘ness’…while the word is a noun it acts like an adjective. There is no specific material object that is wilderness” (Nash, 2001, p. 1). Therefore, wilderness means self-willed land (R.F. Nash, personal communication, May 6, 2013) and the wild, uncontrolled feelings humans experience in the wild country create wilderness. The experiences humans have in the wilderness are personal journeys, but it is ultimately about the human nature relationship or what Robert Greenway (1995) describes as ecopsychology: “a search for language to describe the human-nature relationship,” or in this sense the wilderness experience (p. 122).

Investigations surrounding wilderness visitors came about through a desire to understand humans choosing to explore and experience the wilderness. Wilderness visitor research began to address simple questions: What are visitors experiencing? How is the natural environment influencing the quality of the experience? What are the concerns for visitors, the environment, and how can managers and park officials contribute to this experiential learning? (Cole & Williams, 2012). The need for managers and park officials to understand these questions led to wilderness visitor research in the late 1950s (Manning, 2012). In 1956 and 1958, the first wilderness visitor research was conducted in the Quetico-Superior, or what is now called, the Boundary Waters Canoe Area Wilderness Area (Stone & Taves 1956; 1958). This research continued to build and grow into the 1960s and 1970s. Monumental research published in 1962 provided detailed information about wilderness users, demographics, commitments, appeals, attitudes, interviews, and more (ORRRC, 1962). This research drove management decisions and influenced experiential educators’ programming decisions. Little research about wilderness users was completed in the 1980s and 1990s, and virtually no research has been completed in the last 20 years. Therefore, programming and management decisions are being made using outdated data. There is a need for more research as the wilderness users may have changed over time.

**Methods**

This study was an explorative phenomenological investigation to research the phenomenon that surrounds the wilderness experience and visitors’ reasons for their explorations in the wilderness. The research inquiry states: What are wilderness users' self-reported reasons for exploring the wilderness? The data collection took place on three weekends in March 2013 at three different trailheads located on the wilderness boundaries of the Red Rock-Secret Mountain Wilderness and the Sycamore Canyon Wilderness. Over 200 participants contributed data. The study used trailheads as the setting to recruit participants as they embarked on their experiences. Participants were asked to sign a consent form, complete a demographic form (adopted from other trailhead research), and fill out a questionnaire as they entered the wilderness. Participants also responded to an open-ended question as they left the area, which is the topic of a different paper. Results were compared with earlier studies. Additionally, statistical testing was conducted in order to determine differences in the demographics of hikers from each wilderness location (Bear Mountain, Fay Canyon, and Sycamore Canyon). A t-test was first run on the variable of age between each hiking population and a Chi-square tests were then run between trailhead users in order to determine if specific demographic information—gender, education level, and income—was dependent on which wilderness area visitors chose to hike. Finally, chi-square tests were also run on the open-ended questions, once the responses had been categorized—only the top five response categories for each question were analyzed between the three wilderness area populations. The chi-square tests were run between wilderness area users to determine if the reasons for choosing to hike
the specific location were dependent on which wilderness area people chose to hike, as well as if specific anticipations were dependent on which wilderness area users chose to hike.

Results

The demographic information provided insight into the type of people who were at Bear Mountain Trailhead, Fay Canyon Trailhead, and Sycamore Canyon on the weekends of March 16-17, March 23-24, and March 30-31, 2013. This information does not represent all the people who hike in this area, but it does provide insight of about 25% of the people. The average age of the wilderness user was 46 years old, but other ages are well represented. There were more males than females, but the ratio is almost even with 51.5% male, and 48.5% female. Overall, wilderness users are highly educated with 88% of participants holding a college degree or higher, which correlates to the 131 participants (66%) with an average to above average income. The responses to the questionnaire were coded into categories by frequency for each question. Themes were developed by frequency and common words or saying. The top five responses from each trailhead combined were used. Overall participants stated they chose to come to this area for their wilderness exploration/experience for the following reasons: 49 participants stated because the area/trail was recommended, which is almost 25 percent. Thirty-four participants (17%) stated beauty, 30 participants (15%) stated they had been here before, and 21 participants (11%) stated the natural environment, which included terrain, climate, and rocks. Overall participants stated what they were anticipating on their wilderness exploration/ experience: Sixty-four participants (32%) stated the natural environment, which included terrain, climate, and rocks. Sixty-three participants stated the views, which is over 30 percent. Fifty participants (25%) stated exercise, 31 participants (16%) stated beauty, and 19 participants (less than 1%) stated the hike.

Discussion

The results provided insight into the wilderness phenomenon and participants’ lived experience. The demographic data were compared to those in other wilderness studies to identify trends in wilderness users. This information is important to chart humans’ progression and relationship to the wilderness. The results from the questionnaire provided information about the participants’ reasons and motivations for going to the wilderness. The questionnaire served as a tool to allow participants to ponder their future experience and have them think about why they came to the trailhead. The questionnaire also served as a connection to experiential education by providing an experience and allowing time for the participant to reflect upon the experience. This allowed them to reflect and assess the value of the experience. The data collected served to address the research inquiry: “What are wilderness users' self-reported reasons for exploring the wilderness.” Insight into this question allows for a greater understanding of what draws people to wilderness areas. This information can help inform experiential programing as well as policy, new areas, and insight to ways wilderness management can better serve the public. The data collected from the questionnaire were compared to wilderness visitor research from Lucas (1964), ORRRC (1962), and other wilderness studies to uncover why they explored the wilderness. Data show a shift from wanting to conquer the wilderness to exploring the wilderness for pleasure. These different aims will result in different experiential learning. The research also found a continuation of trending age, female population, and education. All three have been increasing over the years of wilderness research. The research also found many participants journey to specific trailheads due to recommendations, which is a new trend not previously cited as a popular reason/motivation.

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## References


R. F. Nash (personal communication, May 6, 2013)


## SEER 2014 ABSTRACT

**Experiential nutrition education: effects of a school garden program on fruit and vegetable intake among seventh grade students**

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*Melissa M. Knight-Maloney, Ph.D.*

### Introduction

Obesity and related health problems are epidemic among children in the United States, and nutrition education that influences intake of fruits and vegetables is necessary (Centers for Disease Control and Prevention [CDC], 2007; Guenther, Dodd, Reedy, & Krebs-Smith, 2006; United States Department of Health and Human Services [USDHHS], 2010; Wang & Dietz, 2002). Traditional classroom instruction is often insufficient to influence children’s eating habits, and experiential methods have shown to be more successful. School garden programs, called garden-based learning (GBL), are promising strategies to influence healthful eating habits. (Castro, Samuels, & Harman, 2013; Evans, Ranjil, Rutledge, Heim, Stang, & Ireland, 2009; Parmer, Salisbury-Glennon, Shannon, & Strempler, 2009; Somerset & Markwell, 2008; Stingler & Hoelscher, 2012).

The current research assessed The Montezuma School to Farm Project (MSTFP), a school garden program in Colorado that uses GBL as an experiential approach for teaching nutrition, practical life skills, and interpersonal skills. The MSTFP incorporates an experiential format from design and construction of gardens to care and harvest of produce. Students learn interpersonal skills of communication, teamwork, and leadership in the small-group structure as they build familiarity and connection with the produce they grow. With their dynamic, experiential curricula the MSTFP instructors noticed many benefits for their students, and reported that students are
engaged and seemed to have healthy appetites for fruits and vegetables (FVs) (S. Syverson, personal communication, Sept 14, 2013). The program lacked empirical data to support or deny these observations, and research was needed to quantify the effectiveness of MSTFP in relation to similar programs. This study sought to determine if there was a link between the program and their students’ FV intake.

Methods

The study used an experimental design with a one-time food frequency questionnaire to determine student FV intake in test and control groups. The research was reviewed and approved by the Fort Lewis College Institutional Review Board for ethical research. The questionnaire was developed for this study based on food frequency measures for similar programs. The test group was comprised of MSTFP students in the seventh grade from Mancos and Dolores, CO (n=21), who have participated in the program since 2011. The control group consisted of seventh grade students in Bayfield, CO (n=18) which does not have a school garden program. All students who returned an informed consent form were eligible to participate in the survey, with total participation of 39 students.

The survey contained two questions concerning (1) frequency of food intake over the previous three days using a five-item Likert Scale (Table 1); and (2) a multiple choice question about where students learn about healthy eating (Table 2). The original questionnaire contained six Likert items and had category crossover from columns labeled “3-4 times,” “4-5 times,” and “5-6 times.” Responses on all surveys for “4-5 times” were changed to “5-6” times. All surveys were changed equally and did not skew the results. Two questions were removed because of ambiguity and unintended bias. They asked how many times the students had eaten locally-grown food and eaten at a fast-food restaurant.

### Table 1. Survey Question 1 “In the past three days, how many times have you done the following?”

<table>
<thead>
<tr>
<th></th>
<th>0 times</th>
<th>1-2 times</th>
<th>3-4 times</th>
<th>5-6 times</th>
<th>7 + times</th>
<th>Chi Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSTFP</td>
<td>3</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>2</td>
<td>19.62</td>
</tr>
<tr>
<td>Bayfield</td>
<td>1</td>
<td>8</td>
<td>4</td>
<td>5</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2: df = 4, P&lt;.05 = 9.49</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>1. Eat fruit with a meal</th>
<th>2. Eat vegetables with a meal</th>
<th>3. Eat fruit for snack</th>
<th>4. Eat vegetables for snack</th>
<th>5. Eat sweets, chips, or “unhealthy food”</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSTFP</td>
<td>4</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Bayfield</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>85.71%</td>
<td>13</td>
<td>72.22%</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. Survey Question 2: “Where do you learn about food and healthy eating?”

<table>
<thead>
<tr>
<th>Categories</th>
<th>MSTFP (n=21)</th>
<th>Averages</th>
<th>Bayfield (n=18)</th>
<th>Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>As part of a classroom lesson</td>
<td>18</td>
<td>85.71%</td>
<td>13</td>
<td>72.22%</td>
</tr>
</tbody>
</table>

51
The researcher predicted that there would be a link between the MSTFP garden program and higher FV intake among their students than the control group. Food frequency (question 1) was measured using a 2x5 Chi Square Test for Independence. The MSTFP programming and FV intake was statistically significant for each part $X^2 (df = 4, N = 39) = 9.49, p < .05$. The results showed that MSTFP participants had higher intake than the control group in each of these areas: (1) eat fruit with a meal = 19.62; (2) eat vegetables with a meal =19.05; (3) eat fruit as a snack = 18.36; (4) eat vegetables as a snack = 18.99; (5) eat chips, sweets, or ‘unhealthy food’ = 16.50. All of the results were above the critical value of 9.49. Results also show that the test group was more likely to eat sweets and unhealthy food (Table 1). The study also assessed whether or not the garden program was an important source of health knowledge. The second survey question was calculated by averaging total responses and deriving the percentages. The highest ranked categories were: (1) as part of a classroom lesson (85.71%); (2) in the school garden program (also 85.71%); (3) books (42.85%); and (4) students’ families (also 42.85%). In the control group, the highest ranking categories were: (1) [students’] family (88.88%); (2) as part of a classroom lesson (72.22%); and (3) television (38.88%) (Table 2).

Conclusions

The results suggest that the MSTFP programming is an effective addition to nutrition education, and may increase student’s intake of fruits and vegetables. Due to statistical significance, the null hypothesis that there is no link between the MSTFP programming and fruit and vegetable (FV) intake in their students can be rejected. The MSTFP participants show higher intake of both fruit and vegetables with meals, and report eating more fruit and vegetables as snacks than the test group. However, the intake of unhealthy foods was also statistically higher for the test group than the control group. Students in the MSTFP program reported that the classroom and school garden program were the two primary providers of information about food and healthy eating, whereas the control group reported that students’ families and classroom lessons were the prominent sources of health knowledge.

Discussion

School garden programs like the MSTFP often find that fruit and vegetable intake is increased because of the experiential programming. Several studies using pre- and post-intervention tests found that fruit intake is usually higher than vegetable intake at baseline, and does not change as significantly as vegetable intake at posttest (Castro, et al., 2012; Heim, et al., 2009). In lieu of pre/posttest measures, the comparative results between the test and control groups of this study show that MSTFP participants eat more fruit and vegetables with meals, but consumption of FVs for snack is lower. The test group also report eating much more vegetables for snack than the
control group. The higher consumption of vegetables is notable, as some school garden research has found that their programs were not as effective at increasing vegetable consumption as fruit consumption (Evans, et al., 2012). However, the results from this study add to research by Herman, et al. (2006) and Parmer, et al. (2009) who found that their school garden programs strengthened the likelihood that children would eat more vegetables.

Results for the second question offer insight into the value of the garden project as a catalyst for change on both the individual and their home environment. In the control group, 89% reported that “my family” was the primary source from which they learned about healthy eating, and was second to classroom learning (72%). In the test group, the school garden program and classroom lessons were tied as the most prominent categories (85.7%). This is significant because, as Heim, et al. (2009) argue, the home environment is critical in providing food and forming children’s eating habits.

Several limitations may affect the outcomes of this study, which include small sample size, convenience samples and self-report, inconsistency of nutrition education between schools, and demographics. Additionally, the survey was administered in late winter when the gardens were not in operation and limited produce was available. Due to these and other limitations, further research is recommended. The results from the present research support the Montezuma School to Farm Project school gardening curricula as effective means to influence fruit and vegetable intake among their students. The results add to a large body of research that shows school gardens to increase fruit and vegetable intake in youth. The results also support school gardening as an effective addition to classroom-based nutrition education, and that gardens are a promising strategy for influencing eating behaviors.

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**References**


An investigation of the influence of the instructor on participant’s biophilic expressions

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Denise Mitten, Prescott College

Literature Review

Instructors play a fundamental role in adventure education (AE) programs (Bobilya, McAvoy, & Kalisch, 2005; Kalisch, 1999; Schuman, Paisley, Sibthorp, & Gookin, 2009), and have been identified as one of the five Outward Bound course components that influence student learning (McKenzie, 2003). Instructor influence was also identified as one of the leading “critical areas for future study” in AE programming (Hattie,Marsh, Neill & Richards, 1997, p. 73). Participants’ concern for the natural environment is a common outcome in AE programs (McKenzie, 2003) however, Mitten (2009) states that this outcome has diminished in recent years. Furthermore, an “appreciation for nature” was one of the top five reported lessons learned after completion of a National Outdoor Leadership School course, with instructors cited as one of the “specific mechanisms that helped participants learn these lessons” (Sibthorp, Furman, Paisley, Gookin, & Schumann, 2011, p. 116).

The theory of biophilia, defined as “the innate tendency to affiliate with life and lifelike processes” (Wilson, 1984, p. 1), offers a framework through which to understand how people relate to the natural world (Kellert, 1997). Biophilia can serve as a lens to understand the human-nature relationship through its nine unique biophilic expressions. One’s biophilic expression is fostered or repressed through the combination of social learning, cultural conditioning, and direct experience with the natural world (Shorb & Schnoecker-Shorb, 2010). Prior research exploring change in participants’ scores on the Kellert-Shorb Biophilic Values Indicator (KSBVI) revealed statistically significant change in eight of the nine biophilic subscales (Meltzer, Bobilya, Mitten & Faircloth, 2013). Additionally, prior summer camp and prior wilderness experience program (WEP) participation have been previously shown to moderate change in biophilic expression (Meltzer,
Faircloth, Bobilya & Mitten, 2014). However, no research has explored possible instructor influence on change in participants’ biophilic expressions. Therefore, the purpose of this study was to examine the influence of instructors’ KSBVI profile scores on change in their participants’ KSBVI scores.

Methods

These results are part of a larger study conducted in the fall of 2012 with the Prescott College wilderness orientation program. This 21-day, Outward Bound-type trip included backpacking, an academic component, and a solo. There were 126 participants, subdivided into thirteen expedition groups. Data were removed listwise for the purpose of analyses, resulting in a sample of 85 participants with both pre and post KSBVI profiles, and 27 instructor pre KSBVI profiles. The KSBVI is a 99-point questionnaire consisting of a series of statements on a four-point Likert scale, ranging from strongly agree to strongly disagree (Shorb & Schnoeker-Shorb, 2010). The KSBVI reveals a person’s biophilic profile, or a snapshot of their relative expressions of each of the nine biophilic responses. These profiles can then be examined using profile analysis (Tabachnick and Fidell, 2012) to determine the influence of instructors’ KSBVI profiles on change in the profiles of their participants. Profile analyses were conducted as a way of simultaneously assessing the multiple dependent variables (KSBVI subscale scores). Change in participant’s reports on each of the KSBVI subscales was assessed using Repeated Measures MANOVA. Instructor groups can be compared by plotting the multivariate KSBVI data for each group, using the instructor as a between group variable. Instructors’ KSBVI scores were collected on campus prior to the wilderness course.

Results

Analyses using repeated measures MANOVA revealed a significant main effect of time for eight of the nine KSBVI subscales (see Table 1), confirming prior findings regarding change in biophilic expression over time (participants’ scores changed on 8 of 9 subscales, with dominionistic as non-significant; Meltzer et al., 2013). There was also a time by instructor interaction effect for the humanistic, scientific, and utilitarian subscales. In other words, the participants’ set of instructors affected the extent to which change occurred on these three subscales.

Table 1

MANOVA Examining Time and Time x Instructor Interaction Effects

<table>
<thead>
<tr>
<th>Biophilic Subscale</th>
<th>Time</th>
<th>Sig.</th>
<th>Time x Instructor</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetic</td>
<td>16.263</td>
<td>.00**</td>
<td>1.303</td>
<td>.24</td>
</tr>
<tr>
<td>Negativistic</td>
<td>5.680</td>
<td>.02*</td>
<td>.790</td>
<td>.66</td>
</tr>
<tr>
<td>Humanistic</td>
<td>7.051</td>
<td>.01**</td>
<td>2.339</td>
<td>.01**</td>
</tr>
<tr>
<td>Naturalistic</td>
<td>17.229</td>
<td>.00**</td>
<td>1.811</td>
<td>.06†</td>
</tr>
<tr>
<td>Symbolic</td>
<td>5.313</td>
<td>.02*</td>
<td>.849</td>
<td>.60</td>
</tr>
<tr>
<td>Scientific</td>
<td>29.975</td>
<td>.00**</td>
<td>1.887</td>
<td>.05*</td>
</tr>
<tr>
<td>Utilitarian</td>
<td>4.653</td>
<td>.03*</td>
<td>1.979</td>
<td>.04*</td>
</tr>
<tr>
<td>Dominionistic</td>
<td>1.615</td>
<td>.21</td>
<td>1.108</td>
<td>.37</td>
</tr>
<tr>
<td>Moralistic</td>
<td>11.976</td>
<td>.00**</td>
<td>.659</td>
<td>.78</td>
</tr>
</tbody>
</table>

† < .10; * < .05; ** < .01

Note. df for all F tests were (1,85)

Visual inspection of the plots indicated multiple variables that may have been different from one another. The test of between subject effects revealed a significant difference between the
instructor group scores $F(1, 48) = 17.22, p = .00$, indicating that the profiles for the groups were significantly different from one another. The test of within subjects effects also revealed significant differences between subscale scores within each group $F(3, 147) = 29.41, p = .00$. This means there were clear differences between KSBVI subscale scores within each group, with some of the difference scores being positive (indicating increases in scores over time) and others negative (indicating decreases over time). Finally, instructor profiles were generated to reveal the individual KSBVI scores for the instructors leading each of the 13 student expedition groups. Visual inspection of these instructor KSBVI profiles did not reveal any that differed significantly from each other.

Discussion
This current study explored the possibility that instructors influenced change in participants’ KSBVI scores, and served to help answer the calls for continued investigation of instructor influence (Hattie et al., 1997) and the role of the natural world in AE programming (Mitten, 2009). When the data were organized by instructor group, a moderating effect was found for the three subscales: (a) humanistic, (b) scientific, and (c) utilitarian expression. These results suggest that the instructors affected the extent to which change occurred for a participant on these three subscales thus supporting prior research identifying the powerful role of instructors on student learning (Bobilya et al., 2005; Kalisch, 1999; McKenzie, 2003; Schuman et al., 2009; Sibthorp et al., 2011).

Interestingly, when profile analyses were conducted and instructor profiles generated, visual inspection of the instructor KSBVI profiles showed that all the instructor profiles seemed to follow a similar pattern, without any profiles that were significantly different from one another. This seems to suggest that the moderational effect of the instructors was not rooted in the instructor’s individual, internal biophilic expressions. It is possible that different instructors enacted their biophilic expressions in different ways, and the opportunity for this different enactment could have explained the observed moderational differences between different instructor teams. Since the KSBVI measures internal biophilic expression, as opposed to external biophilic enactment, it is not possible to know the differences in instructors’ enactments of these biophilic expressions. Thus, these findings neither support nor refute Martin’s (1999) assertion that an instructor could send specific messages to students about how to behave towards the natural world through their own modeling.

Finally, there may have been other factors embodied by the instructors that weren’t measured by the KSBVI, but that did influence change in participants’ scores. Additional variables that could have had an influence include group dynamics, curriculum, weather, and terrain, among others. This study is limited in its ability to explore some of these additional factors, however these findings indicate a need for continued research into their possible influence on change in KSBVI scores. Practitioners and researchers should continue to explore how curriculum elements, instructor characteristics, or teaching methods may affect change in participants’ biophilic expression and other program outcomes.

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SEER 2014 ABSTRACT

From Battlegrounds to the Backcountry: The Intersection of Masculinity and Outward Bound Programming on Psychosocial Functioning for Male Military Veterans

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Review of literature

The mental health consequences for U.S. Veterans who have served in war zones has been well documented (Tanielian & Jaycox, 2008). Nearly 37% of Veterans returning from the wars after September 11, 2001 have been diagnosed with mental health disorders (Seal et al., 2009). However, it is estimated that only 1/3 of Veterans diagnosed with mental health problems seek help (Hoge et al., 2004). Of 130,331 Veterans diagnosed with posttraumatic stress (PTSD), anxiety, or depression disorders, 51% received did not receive a clinically optimal dose (1-3 sessions) of therapy sessions.
to address their disorder(s). Moreover, having a single mental health diagnosis, being under the age of 35, and being male appear to decrease the likelihood that a Veteran will seek out mental health services (Hundt et al., 2014).

Masculine norms within U.S. civilian and military cultures appears to limit male Veterans openness to seek mental health assistance. Within the military culture, stigma associated with utilizing mental health services often leads to Veterans’ resistance to seek help (Burnam, Meredith, Tanielian, & Jaycox, 2009). Compared to female Veterans, male Veterans are more reluctant to talk about mental health issues (Jakupcak, Blais, Grossbard, Garcia, & Okiishi, 2013) or seek out mental health services (Alfred, Hammer, & Good, 2013).

To transcend stigma-related barriers to mental health treatment, it is critical to explore alternative avenues through which male Veterans can receive mental health assistance. One complementary and alternative approach that shows much potential, but has received limited scholarly attention, is the Outward Bound Veterans Program (OB4V). This program combines outdoor group adventure activities (e.g., hiking, canoeing, etc.) with facilitated therapeutic group process sessions that engage participants cognitively, affectively, and behaviorally. The primary goal of the OB4V is to provide a supportive service to help Veterans “readjust to life at home through powerful wilderness courses that draw on the healing benefit of teamwork and challenge through use of the natural world…to create positive emotional and mental outcomes” (Outward Bound, 2012). The limited research suggests that Outward Bound also helped Vietnam Veterans address posttraumatic stress disorder symptoms (Hyer, Boyd, Scurfield, Smith, & Burke, 1996; Rheault, 1980), and increased Veterans’ sense of coherence and resilience (Ewert, Van Puymbroeck, Frankel, & Overholt, 2011).

A review of the literature on Veterans, men, and masculinity suggests multiple reasons why OB4V aligns well with male Veterans interests and needs within a therapeutic context. Outward Bound’s focus on working as a team aligns with men’s and Veterans’ affinity toward coming together through shared physical activity (Hoge, 2010; Kiselica & Englar-Carlson, 2010). Men seem drawn to therapeutic experiences where camping and outdoor pursuits are a core aspect of the program (Scheinfeld & Buser, 2013; Scheinfeld, Rochlen, & Buser, 2011). Outward Bound for Veteran’s emphasis on establishing goals, leadership, and decision-making relates well with men’s and Veterans’ typical values and strengths (Hammer & Good, 2010; Hoge, 2010). Finally, OB4V’s use of high adventure activities is well suited to meet Veterans’ need for adrenaline-inducing activities as a physical and psychological outlet (Hoge, 2010), and their desire to stay physically fit and be physically challenged (Buis et al., 2011). The combination of group-based therapeutic interventions intermixed with outdoor adventure activities appear particularly beneficial for Veterans’ psychosocial development.

**Methods**

This study sampled 177 male U.S. military Veterans who enrolled in an Outward Bound for Veterans (OB4V) course between spring 2012 and spring 2013. Treatment group participants (N = 159) and waitlist-control participants (N = 18) were primarily Caucasian and employed. Age of participants ranged from 22 to 66 with a mean age of 34 (SD = 9.70). The majority of the sample was deployed and experienced combat overseas (engaged with the enemy or received enemy fire). Under half of the sample reported having a mental health diagnosis, with the majority of diagnoses being Post-Traumatic Stress Disorder and Depression. Group demographics were similar between the treatment and waitlist control groups.

The Conformity to Masculine Norms Inventory (CMNI; Mahalik, Locke, Ludlow, Diemer, Gottfried, & Freitas, 2003) measured the level of conformity to traditional masculine norms, which was examined as a moderator variable. The CMNI Total Adjusted score was comprised of seven subscales: Winning, Emotional Control, Risk-Taking, Violence, Dominance, Self-Reliance,
Primacy of Work. The dependent/outcome variables included overall mental health (Outcomes Questionnaire-45.2 (OQ-45); Wells, Burlingame, Lambert, Hoag, & Hope, 1996), openness to seek mental health treatment (The Attitudes Toward Seeking Professional Psychological Help Scale (ATSPPHS); Fischer & Farina, 1995), and emotional suppression (Emotion Regulation Questionnaire – Suppression Subscale (ERQ); Gross & John, 2003).

A quasi-experimental design was implemented using a treatment group and control group. Time was established as the predictor of the outcome/dependent variables (OQ-45, ATSPPHS, and ERQ) with the CMNI variable being examined as an interaction term to determine whether the CMNI moderated the outcomes. The sample size of the treatment group (n=159) was sufficient for the proposed statistical analyses and participants were recruited from thirty-one different OB4V groups ranging in location throughout the U.S. and type of outdoor activity (see outwardboundforveterans.com). Only male Veterans who enrolled in an OB4V course were eligible for the study. To reduce selection bias, participants were not recruited for the study if they had previously attended an Outward Bound course of any kind.

Multiple regressions were employed to evaluate the relationship between the CMNI variable and the dependent variables of interest. Demographics were entered as covariates and controlled for within the analyses. Dependent (outcome) variables were represented as change scores; calculated by subtracting each dependent variable’s Time 1 (T1) score from its Time 2 (T2) score. The PI emailed treatment group participants survey links, which included the above battery of measures, at two time points using a Qualtrics online survey program. Data was collected at the following time points: 1) T1 – within two weeks before their course began; 2) T2 – within one week after completing their course. The waitlist control participants received the T1 and T2 battery of measures before they attended the course at the same time intervals as the treatment group. All participants took part in Outward Bound Courses that were consistent with the OB4V model.

Results

Research Question 1 (RQ1): Does the change in the treatment group’s outcome variables from T1 to T2 significantly differ from the waitlist control group’s change?

Hypothesis 1 (H1): The treatment group, compared to waitlist control group, would show a significant negative change (improvement) in OQ-45 and ERQ scores and positive change (improvement) in ATSPPHS scores from T1 to T2.

Results RQ 1: Results indicate H1 was supported. The OQ-45, ATSPPHS, and ERQ change score variables in the treatment group significantly differed from the control group. This suggests that the OB4V treatment helped promote participants’ improvement in these outcome variables. As compared with the control group, on average the treatment group’s OQ-45 score dropped by 8.42 points from Time 1 to Time 2 (F [12, 34] = 19.50, p < .00, R² = .26); the ATSPPHS score increased by .13 points from Time 1 to Time 2 (F [9, 34] = 2.84, p < .01, R² = .10); the ERQ score dropped by 2.14 points from Time 1 to Time 2 (F [11, 34] = 3.22, p < .01, R² = 11).

Research Question 2 (RQ2): Do participants’ CMNI scores moderate the change from T1 to T2 in outcome variables that are associated with the effect of the OB4V treatment?

Hypothesis 2 (H2): Participants’ CMNI scores would moderate their outcome variable change scores when comparing the treatment group to the control group; higher CMNI scores would show less improvement in outcome variables than participants with lower CMNI scores.

Results RQ 2: Results indicate H2 was not supported. The OQ-45 (p-values range from .06 to .92), ATSPPHS (p-values range from .15 to .96), and ERQ (p-values range from .34 to .81) change scores for the treatment group compared to the waitlist control group were not influenced (moderated) by participants’ level of conformity to masculine norms.
Discussion

This study addresses scholars’ concerns about the dearth of outcomes-based research and program development within the field of alternative therapeutic interventions for men and Veterans. The primary goals were twofold: 1) to determine whether improvement in Veterans’ therapeutic outcome variables are associated with the effect of the OB4V intervention; 2) to discover whether male Veterans’ level of conformity to traditional masculine norms influences the amount of change in their outcome variables. Overall, the results support the use of OB4V programming to meet male Veterans’ unique therapeutic needs and interests. These findings address the Department of Defense and the Department of Veteran’s Affairs call for greater innovative, community-based interventions to help mitigate returning Veterans’ reintegration challenges (Tanielian & Jaycox, 2008).

Veterans who attended an OB4V course (treatment group) showed improvement in all outcome variables. A significant effect of treatment was found, suggesting that the OB4V treatment helped to promote this improvement; participants’ change scores in the treatment group significantly differed from the waitlist control group. These results show that the Outward Bound for Veterans treatment model helps to increase overall mental health, openness to emotions, and openness to seek psychological help.

Considering that the results from RQ 1 show that the treatment group’s change in outcome variables significantly differed from the waitlist control group, the results from RQ 2 suggest that participants who attend Outward Bound show change in therapeutic outcome variables in the hypothesized direction regardless of their level of conformity to masculine norms. This suggests that OB4V can be an effective program for participants who are low, moderate, or high conformers to traditional masculine norms. In other words, regardless of a male Veteran’s level of conformity to traditional masculine norms OB4V helped him to decrease overall mental health symptoms, increase openness to relate to his emotions, and openness to seek professional psychological help. In sum, OB4V shows strong potential to be an appealing and effective alternative therapeutic intervention for male Veterans that may be reticent to engage in traditional psychotherapy.

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References


Social studies developing social justice – Cultivating preservice teachers experientially

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Literature Review

The greatest gift we can give to another human being is a voice; a voice in a true democratic society, where an individual is heard and valued, regardless of their race, ethnicity, gender or disability. Educators are an integral link in the attainment of this gift. Unfortunately, teachers are often unconsciously and sometimes consciously silencing the voices of individuals. Predominantly due to the lack of awareness, social studies teachers are not engaging in the methods that would provide all students the opportunity for equity across learning environments. Social justice lessons grounded in experiential education, specifically outdoor education, can be the catalyst for the development of personal and professional agency in educators’ conversations regarding race, ethnicity, gender or disability practices. The cycle begins with the teacher, transfers to the students, is shared within the community and finds its way back into the voices of all people.

More understanding on effective experiential education methodologies and their ability to effect change in the 21st century classroom is needed to help build positive diversity and equity practices in preservice teacher preparation programs. Currently, there is a lack of empirical research studies describing the use and effectiveness of experiential education methodologies to teach social studies concepts. McKenzie (2000) stresses the majority of literature related to the utilization of experiential education methodologies to achieve program outcomes is largely based on anecdotal experiences, not empirical research. Storms (2012) echoes this point in concluding that studies specifically exploring how content or pedagogy prepares students for social justice engagement is limited. Most teaching practices are grounded on assumptions and possibly an incomplete understanding of why certain methodologies are effective.

Preparing teachers to teach for social justice is prevalent in numerous teacher education programs, partnerships, recruitment efforts, and other initiatives. (Cochran-Smith, et al., 2009). A large part of social studies teacher education is preparing new teachers to challenge the cultural biases of curriculum, educational policies and practices, and school norms (Howe, 1997). However, the majority of research and scholarly initiatives continues to question the viability of traditional teacher education programs to prepare new and experienced teachers for today and tomorrow’s classrooms (Blair, 2004). Moreover, research has shown that the vast majorities of teacher educators have not been disciplined in social justice and so lack a commitment to it (Ukpokodu, 2007).

The use of experiential education methodologies has been used to raise awareness of preservice teachers (PST) in the areas of diversity and equity and its transference to the classroom (Wright & Tolan, 2009). It is imperative preservice teacher preparation programs incorporate experiential education methodologies to enhance the equity practices and beliefs related to social justice agency of future teachers. The combination of experiential education methodologies woven into an intense outdoor education experience (Browdy, 2004), within a traditional teacher preservice program, can potentially produce more reflective, self-directed learners/teachers with enhanced meta-cognitive skills (Green & Ballard, 2011).

There is rich potential to use experiential methods to promote interpersonal and intrapersonal agency development among preservice social studies teachers. Experiential education
tends to emotionally engage the learner in the same way social justice education is predicated on the student’s direct experience of privilege or oppression (Bell, 1997). The physical activity associated with outdoor education elicits strong affective responses due to challenges with perceived and/or actual risk (Timken & McNamee, 2012). Coupled with agency development, students have the opportunity to think about the context of their life, an ability to contribute to social change and continuity, and about the consequences of their actions, all of which are dynamics evident with the utilization of experiential methodologies (Barton & Walker, 2011). Including outdoor education into the curriculum could promote unique engagement with social justice content and deep student learning.

The purpose of this case study (Yin, 2003) was to discover the impact of the use of experiential education methodologies to cultivate agency for secondary social studies teacher education students.

**Methods**

This quasi-experimental case study employed a mixed-methods design and was framed through a transformative framework with an underlining lens of critical theory. The Teacher Education Department based within a large semi-urban university in the Western United States served as the site for the study. Classrooms, the campus challenge course, community climbing gym and local hiking areas in Logan Canyon were the primary settings utilized. Students were **purposefully selected** based on their enrollment in a Secondary Social Studies Methods Course. The PST’s ranged in educational experiences with some new to teacher education as second career changers and others in their first or second year of their teacher education program. The class met weekly for a 2½ hours. The sample size comprised of 17 participants.

Exploring the real-life experience of PST’s participating in a series of three-targeted lessons in a secondary social studies methodology course was a focus of the research. The targeted lessons emphasized the use of experiential methodologies to build personal and professional social justice agency. Over time, through detailed, in-depth data collection involving questionnaires, journaling, interviews, audiovisual material, and lesson plans, a programmatic case description and themes were developed.

With the aim of understanding experiential learning theory, agency and social studies teacher education in this study, the data sources were coded for emerging themes by using several data analysis techniques (Creswell, 2013; Krippendorff, 2004; Strauss and Corbin, 1998). Data was analyzed by reducing codes to themes and from there pinpointing patterned regularities in the data (Stake, 1995).

**Results**

Findings propose the majority \( n=15/17 \) of PST’s represented in this sample found the experiential activities pleasurable, informative and a different approach to engaging with social studies content. The majority \( n=13/17 \) of preservice teachers expressed three major challenges to teaching social studies experientially:

- **Role as agents of change in school settings** - unclear and lack the strategies to create classroom environments where students’ voices and stories are taken into consideration. *(More class time focused on HOW to connect social studies curriculum and experiential pedagogy to their students’ interests and background is needed)*

- **Uncertainty/Obstacles of securing support from colleagues, parents, and administration.** *(Financial, scheduling, and pedagogical buy-in)*

- **Effective assessment of experiential activities.** Are the students REALLY learning anything? *(Greater exploration on assessing the impact and effectiveness of experiential activities in the traditional classroom)*
Discussion

Social studies curriculum grounded in outdoor education can be the catalyst for a paradigm shift in classroom instruction to engender transformative learning experiences. It is crucial that social educators explore how best to apply experiential learning theory to social studies content that will provide students an opportunity to creatively problem-solve, think critically, and learn the skills to openly dialogue about complex issues.

Histories and narratives of minority groups must be a part of social studies curriculum if preservice teachers are to engage in personally meaningful learning and if equity is properly provided (Jenks, Lee, & Kanpol, 2001). Curriculum must be transformative, and educators as agents for change must enter into democratic dialogue with each other to develop methods that promote critical reflection and inclusionary knowledge (Jenks et al., 2001). Social Studies content coupled with outdoor education can work to disrupt the oppression of certain voices and listen to people expressing themselves in their own words. By raising awareness and generating dialogue, this study aimed to understand how Experiential Learning Theory and agency are connected, influenced, and shaped by each other in preservice teachers’ becoming agents of change within the context of social studies education.

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References


