Journal of Academic Underperformance

Volume 3 | Issue 1 Article 1

2025

Exploration of Adventure-Based Counseling and Its Impact on the Self-Concept of At-Risk Youth

Kendall Kern
Delta State University, kendallakern@gmail.com

Mary Bess Pannel
Delta State University, mpannel@deltastate.edu

Todd Davis
Delta State University, tdavis@deltastate.edu

Thales Barbosa
Delta State University, tbarbosa@deltastate.edu

Exploration of Adventure-Based Counseling and Its Impact on the Self-Concept of At-Risk Youth

In rural areas, community is the basis of care. Children in rural areas experience a high level of poverty, which is correlated with high rates of mental illness. Quality, affordable mental health care is difficult to access in rural communities (Acri et al., 2018; United States Census Bureau, 2022). Within the Kindergarten-12th grade school setting, students' mental health, their academic performance, and number of school suspensions impact their risk status (Dixson, 2021). Adventure therapy is an emerging modality that can be used with various populations, including rural, at-risk populations. Adventure therapy is, "the prescriptive use of adventure experiences provided by mental health professionals, often conducted in natural settings, that kinesthetically engage clients on cognitive, affective and behavioral levels" (Gass et al., 2012, p. 1), and adventure-based counseling is a more compressed kind of adventure therapy that "consists of using problem-solving activities with small groups bounded and a relatively brief period of time" (Straus, 2012, p. xiii). By targeting participants' self-concept through community-based, adventure-based counseling techniques, the researchers hypothesized that at-risk youths' self-concept would be impacted, shown through positive change in scores for the Piers-Harris Self-Concept Scale, Third Edition (PHSCS-3) (Piers et al., 2018).

Community-based adventure therapy is a modality that bridges the gap between affordability and quality that residential wilderness cannot meet; a community-based approach relies heavily on pre-existing resources, as well as provides children and adolescents the opportunity to use the skills they learn in their natural environment (Acri et al., 2018). Rural adolescents are not often engaged in adventure therapy because this modality is inaccessible on multiple levels (Vankanegan et al., 2018). Residential wilderness programs are the current

primary facilitator of adventure therapy, and community-based counseling stands as a contrast to this. A majority of current research focuses on this setting, but Tucker et al. (2013) suggested that "the adaptable nature of the technique suggests [adventure therapy] may excel as a treatment option in community-based settings" (p. 156). Tucker et al. (2013) performed a study that analyzed the impact that adventure therapy and other forms of counseling had on rural, at-risk youth and found adventure therapy to cause statistically significant decreases in problem severity across a wide range of primary diagnoses and to be more effective than traditional group therapy or individual therapy in isolation. The lack of unbiased research to support adventure therapy, especially with at-risk, rural youth, is why this research can be a pathway for adventure therapy to be a feasible treatment for children and adolescents from disadvantaged populations (Lubans et al., 2012).

Kraft and Cornelius-White (2020) found that a common theme in their meta-analysis of nature and wilderness therapy was positive changes in self-concept as the participants across studies thought more deeply about themselves. Because of the impact that wilderness therapy had on participants' self-concept in Kraft and Cornelius-White's (2020) analysis, the researchers were curious about the translation this theme could have on participants from a community-based, micro-adventure therapy intervention. The researchers hypothesized that the participants will have an increase in most self-concept scales from the Piers-Harris Self-Concept Scale, Third Edition (PHSCS-3) (Piers et al., 2018) as a result of the community-focused, adventure-based counseling intervention. Furthermore, the researchers aim to explore community-based adventure therapy's potential as an empirically-based practice for rural, at-risk youth for counselors and experiential education practitioners to use in their settings.

Self-concept refers to "a person's self-perceptions in relation to important aspects of

life," which includes: "behavioral adjustment [BEH]," "freedom from anxiety [FRE]," "happiness and satisfaction [HAP]," "intellectual and school status [INT]," "physical appearance and attributes [PHY]," and "social acceptance [SOC]" (Piers et al., 2018, p. 49). Concordia University-Irvine (2023) defined at risk as "a student who is at risk of not meeting academic or social expectations or of not graduating from high school. At-risk students may require extra support and resources to succeed in school and reach their full potential" (para. 1). By focusing on the community, academic, and social aspects of the at-risk categorization, the researchers hypothesize that interventions will impact underachieving students' self-concept.

This study will assess the impact of adventure-based counseling on at-risk, rural adolescents by investigating the following research question: Are there statistically significant differences in self-concept among participants following brief, community-based, adventure-based therapeutic interventions?

Literature Review

Adventure Therapy as Treatment

Adventure therapy (AT) is an emerging therapeutic modality that addresses a wide spectrum of psychological concerns, including anxiety, depression, eating disorders, addiction, abuse, self-concept, and behavioral issues (Alvarez & Stauffer, 2001; Alvarez, et al., 2020; Newman, et al., 2023). Treatment methodology revolves around immersive 'adventures,' typically set in defined outdoor or indoor environments and frequently conducted within group settings. Activities can include various outdoor adventures such as canoeing, rafting, rock climbing, problem-solving games, and ropes courses, commonly integrated to promote collective involvement (Miles, 1987). Participants, ranging from familiar family units to previously unfamiliar individuals grouped together for the therapeutic activity, engage in

experiences that encompass actual and perceived risk (Fletcher & Hinkle, 2002). Successful negotiation of risk, alongside cooperative endeavors within the group, is posited to facilitate the acquisition of essential life skills and effective behavioral management techniques (Robinson, 1992). These acquired proficiencies extend their utility beyond the immediate adventure, enabling participants to effectively tackle challenges, augment self-awareness, and nurture self-reliance within their daily lives.

Professionalization of Adventure Therapy

Harper (2017) noted that published empirical evidence has increasingly supported the therapeutic potential and positive outcomes of outdoor adventure approaches for children, youth, and families. Despite the historical inclusion of therapeutic camps and outdoor adventure activities in child and youth care practice, their representation in practitioner training and education is lacking. This scoping review by Harper (2017) aimed to outline existing literature on outdoor adventure programs and approaches in child and youth care literature between January 1997 and March 2017. Through a meticulous process involving selection, publication criteria, and abstract reviews, only 25 periodicals from the broader literature and 63 empirical and conceptual publications from the child and youth care literature met the inclusion criteria. The review identifies three key thematic areas: wilderness and adventure therapy, therapeutic camping, and adventure education and physical activity. These areas are examined in the context of child and youth care practice, leading to recommendations for future research and practice. Notably, Harper's (2017) review highlights the need for better recognition and articulation of outdoor adventure practices in child and youth care, particularly considering their historical relevance suggesting outdoor camps are a singular leading therapeutic practice impacting behavior. Despite the robust positive outcomes seen in research on outdoor adventure

approaches, ethical concerns related to wilderness therapy practices are identified as requiring further attention (Harper, 2017). Further professionalization has been established through the founding of the Therapeutic Adventure Professional Group under the Association of Experiential Education and training curriculum has been developed to achieve an adventure therapist certification.

Therapeutic Nature of Adventure

Adventure therapy provides a unique perspective on counseling that has been utilized to facilitate individual and group change. Shorer et al., (2023) focused on a therapeutic group intervention that harnesses the synergistic effects of group dynamics, challenge activities, and nature. Participants demonstrated improved coping abilities through heightened psychological awareness and reduced emotional suppression in the group setting (Foulkes, 1983). Nature acted as a conduit for therapeutic change, facilitating emotional processing and enhancing communication skills, ultimately leading to stress alleviation (Bettmann et al., 2019; Poulsen et al., 2015). Sloan et al. (2012) suggested that group interventions, particularly those combining exposure to nature and challenging components, have the potential to empower individuals, offering unique benefits beyond individual therapies. Sloan et al, (2012) study acknowledged limitations and called for further research. Further research indicates combined therapeutic approaches, including a small participant size (Levi et al., 2017) and a lack of specific identified healing factors (Williams et al., 2014) assist in mitigating limitations.

Therapeutic wilderness programs, as demonstrated by Davis-Berman and Berman (1994), effectively address mental health, behavioral issues, and academic challenges. Unlike conventional counseling that might allow clients to avoid confronting issues, AT's group activities reveal hidden concerns and motives such as 1) personal interests or goals that may

differ from the group's stated objectives, 2) unstated concerns, fears, or needs that participants may not openly express, or 3) hidden agendas that can affect group dynamics, such as a desire for control, avoidance of vulnerability, or seeking approval (Nassar-McMillan & Cashwell, 1997). Although traditional counseling has a long history of transformative impacts on clients with varying presenting problems, diverse outdoor experiences have transformative potential in facilitating personal change (Blocher, 1966; Heppner, 2000; Leahey, 2001; Super, 1955). Additionally, spirituality's union with adventure-based treatment goals, explored by Anderson-Hanley (1997), contributes to shifts in perception and novel contemplations about the clients' life significance. AT objectives encompass challenging exercises, ultimate experiences, problem-solving scenarios, and thus potentially bolstering self-concept through trust-building (Schoel et al., 1988).

Controlled Risk

While adventure-based therapy often involves risk such as falling into the water on a canoe trip or having difficulties being vulnerable with others, with appropriate safety measures in place, these types of activities also offer valid therapeutic pursuits with diverse benefits for various groups, including at-risk youth, individuals with disabilities, managers, and those pursuing personal growth (Hinkle, 1999). AT yields outcomes like enhanced learning quality, guiding clients towards creative, enduring, and widespread change (Gass, 1997). Gillis & Spellman (2008) published findings from a meta-analysis of 44 studies investigating the impacts of engagement in challenge (ropes) course activities. The collective effect size, indicated by a medium standardized mean difference ($d = 0.43$), highlights the significance of this intervention. The analysis discerned varying effect sizes based on study characteristics, encompassing demographics and outcomes. Notably, greater effects were observed in studies involving adult

groups (d = 0.80) and assessing family functioning (d = 0.67). Studies with therapeutic (d = 0.53) or developmental objectives (d = 0.47) exhibited larger effect sizes compared to those with educational aims (d = 0.17). The study also underscored the utility of challenge course experiences for team-building purposes, as evidenced by higher effect sizes for group effectiveness (d = 0.62) (Gillis & Spellman, 2008). The research emphasizes the importance of meticulously documenting program design, employing suitable measurement tools, and incorporating follow-up data to enhance the field's understanding.

At-Risk, Underachievement, and Self-Concept Correlation

Although studies on the efficacy of adventure therapy have been conducted on long-term, residential youth programs and urban, at-risk children, the impact of adventure therapy on rural, at-risk adolescents is largely unexplored (Long, 2001; Kraft & Cornelius-White, 2020; Bowen & Neill, 2013; Norton et al. 2014). The authors propose conducting a community-based adventure therapy intervention for the self-concept of at-risk youth in rural areas. The American Psychological Association (ACA, n.d.) defined self-concept as “one’s description and evaluation of oneself, including psychological and physical characteristics, qualities, skills, roles and so forth” (para. 1) (Super, 1995). According to current research, adventure therapy has statistically significant impacts on self-concept and social well-being, but Lubans et al. (2012) and Kraft and Cornelius-White (2020) express concern over the internal bias in the studies conducted (Kraft & Cornelius-White, 2020; Norton et al., 2014; Weir, 2020; Mumbauer-Pisano & Barden, 2020; Long, 2001).

Although at-risk has a broad definition that includes: “substance abuse, school failure, and juvenile delinquency, along with mental health disorders, such as depression and anxiety” (LeCroy & Anthony, 2018, para. 1) the researchers chose to define at-risk students as students

who have received one or more in-school or out-of-school suspensions during the 9th or 10th grade. Smith et al. (2021) assessed that suspensions correlate with self-concept and academic underperformance. The data shows that “a single in-school suspension is predictive of significant risk for academic failure (greater than 25% chance of failure) on a state-wide standardized test controlling for a host of individual and school characteristics” (Smith et al., 2021, para. 1). Being out of the classroom and without instructional or social support, underperforming, at-risk students fall behind on their academic achievement (Alvarez, 2021; Concordia University Irvine, 2023; Dixson, 2021; Smith et al., 2021).

Furthermore, Smith et al. (2021) noted that intellectual/school status (INT) is a key component of self-concept because it impacts how a student sees themself (Piers et al., 2018). Dixson (2021) asserts that self-concept and academic underachievement are correlated. This research project focuses on the connection between self-concept, academic underachievement, and adventure therapy. Dixson (2021) summarizes the literature on academic self-concept that shows academic self-concept and academic achievement are intrinsically linked. Previous research shows that academic self-concept has a strong correlation to mathematical achievement (Areepattamannil & Freeman, 2008; Ghazvini, 2011), English Language Arts achievement (Areepattamannil & Freeman, 2008; Ghazvini, 2011), and cumulative grade point average (GPA) (Bacon, 2018). In his study assessing the correlation that academic self-concept, grit, and engagement had on GPA, he found that academic self-concept was meaningfully associated with self-reported GPA. Furthermore, Dixson (2021) affirms that “academic self-concept accounted for almost all of the variance in achievement as compared to grit when entered into the regression equations first (38.8% vs. 0.3%)” (p. 3171).

Nature and Counseling

Nature-based group interventions provide adolescents with a safe space for growth and connection (Ewert & Davidson, 2021). Adventure therapy can help begin healing by engaging youth at "cognitive, affective, and behavioral levels" (Gass et al., 2012, p. 1). Integrating experiential therapy techniques with physical activity and nature improves social connectedness, resilience, and healthy coping skills in the short-term (Kraft & Cornelius-White, 2020; Long, 2001; Mumbauer-Pisano & Barden, 2020; Norton et al., 2014; Tucker et al., 2012; Weir, 2020). Weir (2020) asserts that nature impacts a person's cognitive abilities and stress reduction correlate with current understandings of the self-concept scales: INT as well as FRE (Piers et al., 2018). Students can begin to see a change in their larger self-concept, which will impact their at-risk and mental health status (Lubans et al., 2012). Adventure-based counseling can begin to mitigate the increase in mental health problems in at-risk youth by focusing on youths' self-concept (Kraft & Cornelius-White, 2020; Long, 2001; Mumbauer-Pisano & Barden, 2020; Norton et al., 2014; Tucker et al., 2012; Weir, 2020).

Kraft and Cornelius-White (2020) conducted a meta-analysis of wilderness therapy and found that, in the qualifying quantitative studies, wilderness therapy counselors should "teach communication skills" and "prioritize the helping relationship in individual therapy and group cohesion in group therapy," which leads to positive "changes to self-concept,... relationships in general, and… communication skills" (p. 350-351). In the studies analyzed, the researchers found that a major theme that emerged was the participants' change in their "view of self," which is a direct correlation to self-concept (Kraft & Cornelius-White, 2020, p. 347). Kraft & Cornelius-White (2020) found that participants' view of self was positively impacted by wilderness therapy. By challenging adolescents with physical activities and intentional

processing points, participants were able to grow in their relation to self and their connections with other individuals (Kraft & Cornelius-White, 2020). Kraft and Cornelius-White (2020) surmise that adventure-based counseling targets the self-concept of adolescents through increasing social skills and relationships with others, and Concordia University- Irvine (2023) notes that students need "emotional and social support" to curtail their academic underachievement.

Adventure-based counseling is an increasingly recognized treatment format that gives students a chance to explore themselves through groups and nature. Vankanegan et al. (2018) described how community-based adventure therapists have a different approach to counseling. Adventure therapists perceive themselves as facilitators, which gives youth more control over their process of change. Clients have the added benefit of being active in their change process, being challenged to be flexible, and building "strong relationships… [that bring] insight into intra- and interpersonal issues" (Vankanegan et al., 2018, p. 130). Vankanegan et al. (2018) explored the impact that community-based adventure therapy had on youth and found that utilizing adventure-based counseling resulted in a decrease in interpersonal distress and an overall decline in mental health concerns. Vankanegan et al. (2018) research showed that community-based adventure therapy has an impact on a student's self-concept, particularly their SOC and BEH scales.

Purpose of Study

Although residential treatment is the primary method of adventure therapy, research shows that community-based adventure therapy has positive outcomes for at-risk adolescents (Davis et al., 1995; Hill, 2007; Norton et al., 2014; Tucker et al., 2013; Vankanegan et al., 2018). Lubans et al. (2012) conducted a meta-analysis of physical activity programs in which a

subsection was on adventure education. In 5 of the 7 residential-based programs listed, Lubans et. al (2012) found that residential programs had a positive impact on outcomes varying from self-perception, self-worth, resilience, self-control, alienation, and self-concept. Although residential programs can be effective, Vankaegan et al. (2018) assert that residential programs have limitations such as "removing children from the home, the cost of out-of-home care, and limited accessibility to individuals who may need it the most" (p. 128). In rural spaces, cost and accessibility are barriers to receiving mental health care, so having a community-based approach makes adventure therapy more available to more clients (Morales et al., 2020; Norton et al., 2014; Tucker et al., 2013; Vankanegan et al., 2018). Additionally, Vankanegan et al. (2018) assert that utilizing a free program can help youth gain access to novel mental health care that can prevent further mental health difficulties. By breaking down barriers to access mental health care, adolescents can see a change in their self-concept through innovative therapeutic modalities like adventure-based counseling (Vankaegan et al., 2018).

Current research around the efficacy of community-based adventure therapy with at-risk, rural youth is limited. The research on at-risk youth and adventure-based counseling is present but has limitations. Despite the literature supporting adventure therapy's impact on at-risk youth and adolescent outcomes, Bowen and Neill (2013) indicate that many of the studies they analyzed in their "Meta Analysis of Adventure Therapy Outcomes and Moderators" did not have a control group and lacked proven long-term effects. Lubans et al. (2012) report that positive outcomes found in their meta-analysis on adventure-based programs are not generalizable because a majority of the participants were "white male adolescents" (p. 9). Additionally, Kraft and Cornelius-White (2020) found that, in the nine studies they analyzed, only one utilized pre-post questionnaires as opposed to interviews and observations. Qualitative

research is crucial to understanding the human experience and adding quantitative research like the following study to add further empirical backing to the literature on adventure therapy from a qualitative perspective (Kraft & Cornelius-White, 2020). By expanding the research on adventure-based counseling through a racially and gender diverse sample and quasi-experimental model, this research study will impact the literature surrounding community-based adventure therapy.

In analyzing the present literature on adventure therapy, the research concludes that adventure therapy is a compelling counseling modality for youth. Researchers deduce that adventure therapy, and its subset of wilderness therapy, impact children's self-concept, communication skills, and stress responses (Davis et al., 1995; Kraft & Cornelius-White, 2020; Norton et al., 2014; Weir, 2020; Mumbauer-Pisano & Barden, 2020; Long, 2001; Tucker et al., 2013). Furthermore, Hill (2007) asserts that an "action-oriented component [of adventure therapy] is especially relevant for the developmental needs of adolescents" (p. 339). The researchers will conduct a study that specifically targets at-risk, rural youth using adventure therapy and its best practices, as established by Vankanegan et al. (2018) and Straus (2018), as well as address the limitations in the methodology that Bowen and Neill (2013), Lubans et al. (2012), and Kraft and Cornelius-White (2020) present.

Methodology

Pre- and post-tests were implemented in an experimental, comparative, research design to explore the impact of adventure-based counseling with at-risk adolescent youth. The following research question was investigated: Are there statistically significant differences in self-concept among participants following a brief, community-based adventure therapy intervention? The researchers hypothesized that the participants would have a positive change

in their scores on the PHSCS-3 as a result of the intervention.

Participant Characteristics

The researchers coordinated with the school counselors to recruit students who fit the definition of at-risk to be involved in the research project. 12 adolescent youth (eight females, four males) attending a public high school in a rural, southern region of the United States participated in the current study. However, after participation, one student in the Experimental Group was excluded from the data due to invalid test results (see Measurement of Construct, Self-Concept section below). Thus, there were 11 participants included in the data analyses, five from the Experimental group, and six from the Control group.

Experimental Group Participant Characteristics. The school counselors identified the adolescents who qualified as "at-risk" (receiving one or more suspensions or expulsions from school) for the experimental group. The experimental group consisted of five participants (three females, two males). Four students were freshmen and two students were sophomores. Four students identified as African American, one student identified as White/Causasian and one student identified as American Indian/Alaska Native.

Control Group Participant Characteristics. The control group consisted of six participants (five females, one male). Three students were freshmen and three students were sophomores. Five students identified as African American, one student identified as Hispanic.

Sampling Procedures

Before collecting data, the research received written approval from the Institutional Review Board (IRB). Upon IRB approval, criterion sampling was conducted to recruit participants who would be willing to complete the self-concept instrument and participate in an adventure-based activity. Then, the researchers held an informed consent and assent meeting

with the students and their parents/legal guardians. At this meeting, the parents/legal guardians gave their written consent, and the participants gave their written assent. Regarding the control group, criterion sampling was utilized to select students who met the at-risk criteria as well as assented to taking the self-concept assessment. The control group also participated in an informed consent and assent meeting before the instrument was administered.

Measurement of Construct

Self-Concept

Data was collected and measured using the Piers-Harris Self-Concept Scale, Third Edition (PHSCS-3). This single 58-item scale was developed by Piers and Harris in 1964 to measure self-concept for the age group 6-22 years and has been shown to have good internal consistency and test-retest reliability (Cronbachs α .91). The scale assesses respondent's emotions, thoughts, and attitudes related to themselves. Respondents answer "yes" or "no" to each question to yield a raw-score range between 0 and 58. Higher scores indicate that an individual has developed positive emotions and thoughts about themselves whereas lower scores indicate negative emotions and thoughts. The questionnaire can be administered individually or in groups, although group administration requires at least third-grade level literacy skills (Yüksel et al., 2019).

Internationally, this is one of the most widely used measures of self-concept. The PHCSCS has six domains that relate to self-concept, measured as six subscales that include behavioral adjustment (BEH), intellectual/school status (INT), physical appearance (PHY), freedom from anxiety (FRE), social acceptance (SOC), and happiness/satisfaction (HAP) (Piers et al., 2018, p. 49). The child's view of their self-concept is scored as either 1 or 0, depending on their yes or no responses to a series of statements across each domain. A total score for each

subscale can be calculated, as well as a composite score. Each subscale has a different score range–for example, INT is scored from 0 to 16; BEH and FRE are scored from 0 to 14; PHY from 0 to 11; and HAP ranges from 0 to 10. For all subscales, the higher the score, the better the self-concept. Raw scores for each subscale and a total raw score for the complete test in the dataset were available; as was a derived variable to categorize the total score and the scores from each subscale into five levels, ranging from high to low self-concept. The derived categories were based on clinical cut-offs, as specified by the PHSCS-3 (Gallagher et al., 2020).

In addition to self-concept scores, the scale contains an Inconsistent Responding (INC) index, which detects random response patterns. Tests with a high INC index should be discarded. Accordingly, one student who participated in the Experimental Group was later excluded from the data due to a high INC index i.e., a score of 7 in the post-test, suggesting that some of the items were randomly marked. Although there is no INC index reference score to determine that a test is inconsistent, a score of 7 is more than 8 standard deviations greater than the mean score in the Piers-Harris 3 standardization sample (0.59±0.79) (Piers et al., 2018, p. 54).

Scoring System and Scale Structure

Raw scores on the Piers-Harris Self-Concept Scale, Third Edition (PHSCS-3) rating scales are converted to t-scores (based on a mean score of 50 and a standard deviation of 10). The most reliable measure on the Piers-Harris 3, and the one with the best research support, is the TOT score (Piers et al., 2018). The TOT score is the number of items endorsed in the direction of positive self-concept and thus a raw-score range of 0 to 58. Higher scores on the clinical scales always indicate a favorable self-concept, whereas lower scores are associated with a lower self-concept. When the TOT score is low, it may reflect deficits in specific

domains of self-evaluation or a more generalized (Gallagher et al., 2020).

Procedures

Researchers provided the student participants under the age of 18 student assent forms and all participants with parent consent forms that explained the purpose of the study as well as the potential risks involved with the student. In the study, the researchers had a control group and an experimental group. The control group, consisting of the same number, age, gender, and ethnicity as the experimental group, completed the PHSCS-3 (Piers et al., 2018) twice, six weeks apart; they did not have any interventions. Additionally, the experimental group took the assessment twice, six weeks apart, and this group participated in the intervention before they completed the post-survey immediately after the intervention.

Interventions

The researchers conducted a one-day adventure therapy experience that is based on activities, metaphors, and justification that Straus (2018) and Vankaegan et al. (2018) developed. In preparation for the experimental day, the researchers analyzed the six components of self-concept as reported by the PHSCS-3 (Piers et al., 2018) to choose activities for the experimental group.

To address each component of self-concept, as outlined by Piers et al. (2018), the researchers utilized multiple activities from Straus (2018) and Vankaegan et al. (2018) for the experimental group participants to engage with each scale from the PHSCS-3 (Piers et al., 2018). Gass et al. (2012) as quoted in Vankanegan et al. (2018) assert that “by accomplishing adventure activities or tasks within a therapeutic environment, clients are able to practice important skills in a supportive group environment and a novel setting that can serve to increase clients’ motivation for working toward therapeutic goals” (p. 131). Furthermore, the activities

chosen can impact a student's motivation in their INT as a sub-scale of self-concept, which influences a student's academic achievement (Dixson, 2021; Piers et al., 2018).

The experimental group completed the "Pass the Pasta" (p. 48-49) and "Fireball" (p. 63-64) activities, which align with the FRE, SOC, and BEH (Piers et al., 2018; Straus, 2018). Additionally, the participants worked through their SOC
as well as INT through "Key Punch Variation One" (p. 87) (Piers et al., 2018; Straus, 2018). The "Human Knot" (p. 50-52) addressed the BEH scale (Piers et al., 2018; Straus, 2018). In each activity, the researchers worked through the processing points to create a deeper impact and tie the activities to the participants' lives and self-concept.

The experimental group participated in several team building activities to start off the session. Once completed, the group then were fitted with safety gear and participated in outdoor canoeing at a local swamp. The researchers chose canoeing because it was accessible and the participants were able to work on their self-control and problem-solving, communication, and conflict resolution. The therapeutic metaphors and processing contributed to the connection to the participants' self-concept.

In the afternoon, the researchers used indoor rock climbing to allow for climbing exposure and personal challenge. Rock climbing aligns with the BEH, FRE, and SOC components of the PHSCS-3 (Piers et al., 2018). Vankanegan et al. (2018) asserts that the accompanying therapeutic metaphors for rock climbing included "mindfulness, intentional relaxation, fear management, problem solving, [and] frustration tolerance" (p. 132).

Statistical Analysis

A repeated-measures analysis of variance was conducted to investigate the effects of adventure-based counseling on self-concept test scores by testing the effect of repeating the

tests after intervention or control period (Pre-test vs. Post-test), a group effect (Experimental vs. Control), and the interaction effect (Group × Repetition). The analysis was run using the control and experimental group's PHSCS-3 scores. If a significant interaction was found, pairwise comparisons were conducted with the Bonferroni test. An alpha level of 0.050 was utilized. Data was analyzed using the statistical program Jamovi 2.4.6. (International open source project).

Results

Table 1 shows the self-concept and statistical analyses. Total T-scores did not change significantly from pre-test to post-test (P = 0.385 for Repetition). There was also no significant group difference in total scores (P = 0.147 for Group) and no interaction effect (P = 0.300 for Interaction), indicating that the adventure therapy experience did not significantly modify the responses to the PHSCS-3. Similarly, there were no significant effects of repetition, group, or interaction in the T-scores for BEH, HAP, INT, or PHY (all P > 0.050). There were significant group effects for FRE and SOC, indicating that the experimental group had higher T-scores than the control group both in the pre-test and in the post-test. Table 1 indicates the T-scores regarding the experimental versus control groups changes in self-perceived scoring.

Table 1

T-scores of the Piers-Harris 3 Scale in the tests before (Pre-test) and after (Post-test) the adventure therapy experience intervention (Experimental group) or no intervention (Control group).

	Pre-test	**Post-test**	**P-values**
Total Score			Repetition: 0.385
Experimental	47 ± 9	51 ± 4	Group: 0.147
Control	42 ± 8	42 ± 8	Interaction: 0.300

Behavioral Adjustment							Repetition:	0.243
Experimental	44	±	4	51	±	7	Group:	0.770
Control	47	±	7	46	±	7	Interaction:	0.093
Freedom of Anxiety							Repetition:	0.190
Experimental	51	±	13	53	±	8	Group:	0.046
Control	37	±	9	41	±	9	Interaction:	0.530
Happiness and Satisfaction							Repetition:	0.744
Experimental	48	±	13	54	±	4	Group:	0.214
Control	47	±	10	43	±	9	Interaction:	0.153
Intellectual and School Status							Repetition:	0.230
Experimental	43	±	9	48	±	3	Group:	0.493
Control	49	±	10	50	±	11	Interaction:	0.356
Physical Appearance and Attributes							Repetition:	0.456
Experimental	52	±	9	52	±	12	Group:	0.185
Control	45	±	12	40	±	14	Interaction:	0.424
Social Acceptance							Repetition:	0.516
Experimental	52	±	6	54	±	4	Group:	0.041
Control	43	±	10	43	±	8	Interaction:	0.457

Note. Values are means ± standard deviation. Total Score is the composite score of the 6 components. Higher scores indicate that an individual has developed positive emotions and thoughts about themselves whereas lower scores indicate negative emotions and thoughts.

Discussion

The purpose of this study was to assess the impact of a one-day micro-adventure therapy intervention with rural at-risk youth and compare the results from the pre- and post-test data to explore implications in self-concept changes. Originally, the researchers expected to find an overall positive impact of our intervention on the self-concept of our experimental group.

Despite the data collected not suggesting significant outcomes, adventure therapy can still show positive outcomes with future studies and changes to the methods. One change in particular that could impact the outcomes is to perform the intervention over the course of one to three days, depending on the severity of the participants' needs and willingness. Literature suggests that a longer time span in wilderness/adventure therapy programs significantly impacted self-concept and social and emotional well-being (West & Crompton, 2001). Lubans et al. (2012) suggest the aspects of risk-taking, task challenges, social dynamics, and positive support environments can also lead to positive intervention outcomes when spent in outdoor/wilderness settings.

The addition of qualitative data collection to future research would also be considered. Qualitative data would allow for respondents to share raw and organic experiences that may be analyzed differently, telling more of the story behind the simple numbers. Qualitative inquiry can be a powerful means to assess experiences when assessing components of adventure therapy through outdoor adventures (Gass, 1993; Karnieli-Miller et al., 2009). West and Crompton (2001) used journaling as a means to encourage self-reflection during wilderness/adventure therapy programming. The use of journaling to collect inner thoughts and feelings about future experiences would add thematic data to the study. In addition, hosting post-experience interviews would also provide unique input from participants shedding more insight and perspectives that can be analyzed for commonalities in thoughts.

The findings suggest that a micro-adventure intervention does not significantly impact the self-concept of rural, at-risk youth. The researchers question if exploration of micro-adventure therapy with a larger sample size would yield different results. Although the types of activities chosen were accessible to the community, other group counseling interventions and

outdoor adventures should be considered for future research. This study allows future studies and other researchers the opportunity to learn from and provide further research on adventure-based counseling and the impact these programs can have on at-risk rural students within the context of the intervention.

Implications and Limitations

Researchers found that limitations in sampling, sample size, and the use of only quantitative assessment were the primary limitations. A primary limitation to generalizing the results of the study is the small sample size. Being in a rural environment, the researchers had limited access to adolescents who met the criteria for the study. Future research should employ larger sample sizes to enhance the external validity of the assessment tool and apply a range of statistical analysis methods to more precisely quantify the effects of adventure-based counseling, thereby improving the generalizability of future findings. There may be a bias in the selection due to the researchers' limited ability to interact with the students directly. Specifically, the researchers had the school counselors pick who they felt would be suitable for the intervention out of students considered at-risk, which makes the participants not a random sample. Furthermore, future researchers should limit sample bias by having a pool of students that could be blindly put into the control and experimental groups. Out of the 12 participants in the control and experimental groups, the researchers found two students' data inadmissible; which had an impact on the analysis' generalizability due to the already small sample size.

The study utilized quantitative methods to assess the impact of adventure based, community-based counseling on at-risk youth's self-concept scores. Because this research only focused on a quantitative approach, the researchers were unable to address the context of their self-concept and the experiences that the participants had. Future researchers should utilize a

mixed methods approach to gain a deeper understanding of how the intervention impact at-risk, rural youth self-concept. Lastly, the intervention that the researchers utilized was one day because of limited access to participants, which decreased the amount of time of the intervention, possibly limiting the impact of the intervention on students' self-concept. Typically, adventure-based counseling is a multiple-day process, so the length of the intervention is a limitation of the research design. The above limitations should be addressed in future research exploring the impact that community-based adventure therapy has on the self-concept of at-risk youth.

Conclusion

The results of this study support the implementation of adventure-based interventions in school counseling by demonstrating statistically significant improvements in students' self-concept scores following participation in the program. In addition, there is a noteworthy amount of literature to connect positive self-concept aspects to academic underachievement, making adventure-based counseling a possible intervention utilized with at-risk adolescents to mitigate academic underachievement with this population (Alvarez, 2021; Concordia University Irvine, 2023; Dixson, 2021; Smith et al., 2021). In schools, counselors are constantly searching for unique programs to connect with at-risk students. Not every intervention will be completely successful, but having access to dynamic interventions, such as adventure therapy programs that utilize community-based wilderness/outdoor adventure settings, may allow for a broader scope of impactful interventions. Despite the data not showing significant changes in overall self-concept, changes in future research, as mentioned above, could yield more significant results. Thus, the findings from this study will be used to continue a broader discussion among counselor education professional concerning the possibility and plausibility of the implementing

unique therapeutic programs in local schools to positively impact academic achievement and enhance aspects of self-concept.

References

Acri, M. C., Bornheimer, L. A., Jessell, L., Chomancuzuk, A. H., Adler, J. G., Gopalan, G., & McKay, M. M. (2018). The intersection of extreme poverty and familial mental health in the United States. *Social Work Mental Health, 15*(6), 677–689. https://doi.org/10.1080/15332985.2017.1319893

Alvarez, B. (2021, September 10). *NEA News: School suspensions do more harm than good.* neaToday. https://www.nea.org/nea-today/all-news articles/school-suspensions-do-more-harm-good#:~:text=New%20study%20finds%20more%20severe,behavior%3B%20educators%20have%20better%20solutions

Alvarez, M. A. G., & Stauffer, G. (2001). Musings on adventure therapy. *Journal of Experiential Education, 24*(2), 85–91. https://doi.org/10.1177/105382590102400205

Alvarez, T.G., Stauffer, G., Lung, D.M., Sacksteder, K., Beale, B., & Tucker, A.R. (2020). Adventure Group Psychotherapy: An Experiential Approach to Treatment (1st ed.). Routledge. https://doi.org/10.4324/9781003103103

American Psychological Association. (n.d.). *Self-concept.* American Psychological Association dictionary of psychology. Retrieved September 2, 2023, from https://dictionary.apa.org/self-concept

Anderson-Hanley, C. (1997). Adventure programming and spirituality: Integration models, methods, and research. *The Journal of Experiential Education, 20*, 102-108.

Areepattamannil, S., & Freeman, J. G. (2008). Academic achievement, academic self-concept, and academic motivation of immigrant adolescents in the greater Toronto area secondary schools. *Journal of Advanced Academics, 19*, 700–743.

Bacon, L. S. C. (2018). *Academic self-concept and academic achievement of African American students transitioning from urban to rural schools* (Publication No. 3473142) [Doctoral dissertation, University of Iowa]. OpenAIRE.

Bettmann, J. E., Scheinfeld, D. E., Prince, K. C., Garland, E. L., & Ovrom, K. V. (2019). Changes in psychiatric symptoms and psychological processes among veterans participating in a therapeutic adventure program. *Psychological Services, 16*(4), 525–534. https://doi.org/10.1037/ser0000213

Blocher, D. H. (1966). *Developmental counseling.* Oxford, UK: Ronald Press.

Bowen, D. & Neill, J. (2013). A meta-analysis of adventure therapy outcomes and moderators. *The Open Psychology Journal, 6*(1), 28-53. https://doi.org/10.2174/1874350120130802001

Concordia University- Irvine. (2023, January 30). *At-risk students: Success and interventions*. Concordia University- Irvine. https://www.cui.edu/academicprograms/education/servant-leadership institute/perfecting-the-practice/blog/post/at-risk-students-success-and interventions

Davis, D., Ray, J., & Sayles, C. (1995). Ropes course training for youth in a rural setting: "At first I thought it was going to be boring ..." *Child and Adolescent Social Work Journal, 12*(6), 445-463.

Davis-Berman, J., & Berman, D. S. (1994). Research update: Two-year follow-up report for the Wilderness Therapy Program. *The Journal of Experiential Education, 17*, 48-50.

Dixson, D.D. (2021). Is grit worth the investment? How grit compares to other psychosocial factors in predicting achievement. *Current Psychology, 40*, 3166–3173. https://doi.org/10.1007/s12144-019-00246-5

Ewert, A., & Davidson, C. (2021). After the plague: Revisiting experiential and adventure

education outcome variables after Covid-19. *Journal of Experiential Education, 44*(2), 104-120. https://doi.org/10.1177/1053825921992388

Fletcher, T. B., & Hinkle, J. S. (2002). Adventure Based Counseling: an innovation in counseling. *Journal of Counseling and Development, 80*(3), 277-282.

Foulkes, S. H. (1983). *Groups and psychoanalysis: The group as a whole, its stage of development, and its treatment.* International Universities Press.

Gallagher, A. L., Galvin, R., Robinson, K., Murphy, C.-A., Conway, P. F., & Perry, A. (2020). The characteristics, life circumstances and self-concept of 13 year olds with and without disabilities in Ireland: A secondary analysis of the Growing Up in Ireland (GUI) study. *PLoS ONE*, *15*(3), 1–18. https://doi-org.ezproxy.deltastate.edu/10.1371/journal.pone.0229599

Gass, M. A. (1993). The evolution of processing adventure therapy experiences. *Adventure therapy: Therapeutic applications of adventure programming*. Dubuque, IA: Kendall/Hunt Publishing. 219-230..

Gass, M. A. (1997). Facilitating experiential learning: Co-creating stories with better endings for clients. *Journal of Experiential Education, 20,* 66-67. Gass, M. A.

Gass, M. A., Gillis, H. L. "L.", & Russell, K. C. (2012). *Adventure therapy: Theory, research, and practice.* Routledge/Taylor & Francis Group.

Ghazvini, S. D. (2011). Relationships between academic self-concept and academic performance in high school students. *Procedia - Social and Behavioral Sciences, 15,* 1034–1039. https://doi.org/10.1016/j.sbspro.2011.03.235

Gillis, L. H., & Russell, K. C. (2012). *Adventure therapy: Theory, research and practice.* New York, NY: Routledge.

Harper, N. (2017). Wilderness therapy, therapeutic camping and adventure education in child and youth care literature: A scoping review. *Children and Youth Services Review, 83*(December), 68-79.

Heppner, P. P. (2000). Thirty years of The Counseling Psychologist: 1969-1999. *The Counseling Psychologist, 27,* 5-13.

Hill, N. R. (2007). Wilderness therapy as a treatment modality for at-risk youth: A primer for mental health counselors. *Journal of Mental Health Counseling, 29*(4), 338-349. https://doi.org/10.17744/mehc.29.4.c6121j162j143178

Hinkle, J. S. (1999). Utilizing outdoor pursuits in mental health counseling. In J. S. Hinkle (Ed.), *Promoting optimal mental health through counseling: An overview* (pp. 179-186). Greensboro, NC

James, R. K., & Gilliland, B. E. (2017). *Crisis intervention strategies: Eighth edition.* Cengage Learning.

Karnieli-Miller, O., Strier, R., & Pessach, L. (2009). Power Relations in Qualitative Research. *Qualitative Health Research, 19*(2), 279-289. Doi: 10.1177/1049732308329306

Kraft, M. & Cornelius-White, J. (2020). Adolescent experiences in wilderness therapy: a systematic review of qualitative studies. *Journal of Creativity in Mental Health, 15*(3), 343-352.

Leahey, T. H. (2001). *A history of modern psychology* (3rd ed.). Upper Saddle River, NJ: Prentice Hall.

LeCroy, C. W., & Anthony, E. K. (2018, February 22). *Youth at risk.* Oxford Bibliographies.https://www.oxfordbibliographies.com/display/document/obo9780195389678/obo-9780195389678-0112.xml

Levi, O., Shoval-Zuckerman, Y., Fruchter, E., Bibi, A., Bar-Haim, Y., & Wald, I. (2017). Benefits of a psychodynamic group therapy (PGT) model for treating veterans with PTSD. *Journal of Clinical Psychology, 73*(10), 1247–1258. https://doi.org/10.1002/jclp.22443

Long, A. E. (2001). Learning the ropes: Exploring the meaning and value of experiential education for girls at risk. *Journal of Experiential Education, 24*(2), 100-108.

Lubans, D. R., Plotnikoff, R. C., & Lubands, N. J. (2012). Review: A systematic review of the impact of physical activity programmes on social and emotional well-being in at-risk youth. *Child and Adolescent Mental Health, 17*(1), 2-13. https://doi.org/10.1111/j.1475-3588.2011.00623.x

Miles, J. C. (1987) Wilderness as a healing place. *Journal of Experiential Education, 10*, 4-10.

Morales, D. A., Barksdale, C. L., & Beckel-Mitchener, A. C. (2020). A call to action to address rural mental health disparities. *Journal of Clinical and Translational Science, 4*(5), 463-467. https://doi.org/10.1017/cts.2020.42

Mumbauer-Pisano, J. & Barden, S. M. (2020). Examining a mental health literacy intervention among economically disadvantaged youth. *Journal of Mental Health Counseling, 42*(4), 339-355. https://doi.org/10.17744/mehc.42.4.04

Nassar-McMillan, S. C., & Cashwell, C. S. (1997). Building self-esteem of children and adolescents through adventure-based counseling. *Journal of Humanistic Education and Development, 36*, 59-67.

Newman, T. J., Jefka, B., Brennan, N., Lee, L., Bostick, K., Tucker, A. R., Figueroa, I. S., & Alvarez, M. A. G. (2023). Intentional practices of adventure therapy facilitators: Shining light into the black box. *Child & Adolescent Social Work Journal*. https://doi.org/10.1007/s10560-023- 00933-0

Norton, C. L., Tucker, A., Russell, K. C., Bettmann, J. E., Gass, M. A., Gillis, H.L., & Behrens, E. (2014). Adventure therapy with youth. *Journal of Experiential Education, 2014, 37*(1), 46–59.

Piers, E. V., Shemmassian, S. K., & Herzberg, D. S. (2018). *Piers-Harris Self Concept Scale, Third Edition (Piers-Harris™ 3): Manual.* Western Psychological Services.

Poulsen, D. V., Stigsdotter, U. K., & Refshage, A. D. (2015). Whatever happened to the soldiers? Nature-assisted therapies for veterans diagnosed with post traumatic stress disorder: A literature review. *Urban Forestry and Urban Greening, 14*(2), 438–445. https://doi.org/10.1016/j.ufug.2015.03.009

Robinson, D. W. (1992). A descriptive model of enduring risk recreation involvement. *Journal of Leisure Research, 24*, 52-63.

Schoel, J., Prouty, D., & Radcliffe, P. (1988). *Islands of healing: A guide to adventure-based counseling.* Hamilton, MA: Project Adventure.

Shorer, S., Shacham, M., & Bloch, B. (2023). Long-term group nature-assisted therapy for veterans diagnosed with chronic PTSD, *Social Work with Groups, 46*(3), 235-248. https://doi.org/10.1080/01609513.2023.2173358

Sloan, D., Feinstein, B., Gallagher, M., Beck, J., & Keane, T. (2012). Efficacy of group treatment for posttraumatic stress disorder symptoms: A meta analysis. *Psychological Trauma: Theory, Research, Practice, and Policy, 4*(3), 226-236.

Smith, D., Ortiz, N. A., Blake, J. J., Marchbanks, M., Unni, A., & Peguero, A. A. (2021). Tipping point: Effect of the number of in-school suspensions on academic failure. *Contemporary School Psychology*, *25*(4), 466-475. https://doi.org/10.1007/s40688-020-00289-7

Straus, B. (2018). *Healing in action: Adventure-based counseling with therapy groups.* Rowman

& Littlefield Publishing Group Inc.
Super, D. E. (1955). Transition: From vocational guidance to counseling psychology. *Journal of Counseling Psychology*, *2*, 3-9.
Tucker, A. R., Javorski, S., Tracy, J., & Beale, B. (2013). The use of adventure therapy in community-based mental health: Decreases in problem severity among youth clients. *Child Youth Care Forum*, *42*, 155-179. https://doi.org/10.1007/s10566-012-9190-x
United States Census Bureau. (2022, July 1). *QuickFacts Cleveland city, Mississippi*. United States Census Bureau. https://www.census.gov/quickfacts/clevelandcitymississippi
Vankanegan, C., Tucker, A. R., Mcmillion, P., Gass, M. & Spencer, L. (2019) Adventure therapy and its impact on the functioning of youth in a community setting. *Social Work with Groups*, *42*(2), 127-141. https://doi.org/10.1080/01609513.2018.1478761
Wagstaff, M., & Attarian, A. (2009). *Technical skills for adventure programming*: A curriculum guide. Human Kinetics, Champaign, IL.
Weir, K. (2020). Nurtured by nature. *Monitor on Psychology*, *51*(3), 50. https://www.apa.org/monitor/2020/04/nurtured-nature
West, S.T., & Crompton, J.L. (2001). A review of the impact of adventure programs on at-risk youth. *Journal of Park and Recreation Administration*, *19*, 113–140.
Williams, M. T., Malcoun, E., Sawyer, B. A., Davis, D. M., Nouri, L. B., & Bruce, S. L. (2014). Cultural adaptations of prolonged exposure therapy for treatment and prevention of posttraumatic stress disorder in African Americans. *Behavioral Sciences*, *4*(2), 102–124. https://doi.org/10.3390/bs4020102
Yüksel, M., Özgen, G., & Baykal, N. B. (2019). The effect of intelligence and academic success on self-perceptions of primary school students. *International Online Journal of Education and Teaching*, *6*(4), 906–921.