The Outdoor Behavioral Health Council Presents Findings from a Multiple-Year, Multiple-Program Research Project

INTRODUCTION

The Outdoor Behavioral Health Council, in concert with their member **Outdoor Behavioral Healthcare** (OBH) programs have long recognized the importance of monitoring clinical outcomes for clients and their families. In general, monitoring therapeutic changes associated with intervention is critical to providing the highest quality and the most effective treatment. Additionally, the Outdoor Behavioral Healthcare modality has long been considered controversial. Concerns largely have been associated with perceived lack of regulation and oversight, uneasiness with the physical safety and risk management protocols for youth in the outdoors, and the use of transport services to bring resistant adolescents to programs. Most recently, the Outdoor Behavioral Healthcare continuum has come under intense scrutiny. This followed a social media campaign, launched by a prominent individual, and powered by online communities of former clients who contend they experienced ineffective treatment, harsh and punitive practices, and traumatic stress while enrolled in various Outdoor Behavioral Healthcare programs and residential treatment centers. The current report provides results from an outcome study, conducted across multiple years and with data from 17 Outdoor Behavioral Healthcare programs. In particular, results provide evidence that address existing concerns, such as the dissatisfaction of adolescent clients.

OBH Council — Outdoor Behavioral Healthcare

The following programs contributed clinical data (between 2019-2022) to the outcome analyses presented in this report.

Adolescent Programs
Anasazi Foundation
Blue Fire Wilderness Therapy
Elements Wilderness Program
Evoke Therapy
New Vision Wilderness
Open Sky Wilderness
Redcliff Ascent
Summit Achievement

Young Adult Outcomes
Anasazi Foundation
BlueFire Wilderness
Elements Wilderness Program
Evoke Therapy
Legacy Outdoor Adventures
New Vision Wilderness
Open Sky Wilderness
Redcliff Ascent
Summit Achievement

STUDY METHODOLOGY AND ASSESSMENT

Seventeen OBH programs, who were members of Outdoor Behavioral Healthcare Council contributed data for analyses for this report. Individual programs administered research and evaluation surveys to adolescent and young adult clients, as well as a parent or relative, within seven days of admission and again within seven days of discharge. The sample for the current report includes 4544 adolescent and young adult participants whose 17 different Outdoor Behavioral Healthcare programs collected and contributed data to the network between 2019 and 2022.

Following collection, electronically submitted data were stored in a central database managed by Outdoor Behavioral Healthcare Center at the University of New Hampshire (now known as *Outdoor Research Collaborative*). This center was responsible for data storage and protection — including following regulations protecting vulnerable human subjects — throughout the entirety of the project. The Outdoor Behavioral Healthcare Center provided deidentified aggregated data to researchers for approved projects. Because data was anonymized at the level of the Outdoor Behavioral Healthcare program in the present report, therapeutic approaches, treatment paradigms, lengths of stay, location, and other program elements could not be examined.

Each Outdoor Behavioral Healthcare program was responsible for administrative oversight of data collection, including standardization within their specific program, protection of confidential health information, and adherence to data storage and maintenance requirements.

Instrumentation refers to tools or methods used to measure constructs of interest. The current project used the following instruments (i.e., surveys) to measure psychological and family functioning, before and after participation in Outdoor Behavioral Healthcare programming.

- The **Youth Outcome Questionnaire**[1] (YOQ; Burlingame et al., 2004) is a widely used measure to assess psychological functioning and track changes in therapy for children and adolescents aged 4 to 17.

  The YOQ assesses several dimensions of functioning and distress, providing a total score, as well as subscale scores. Subscales create specific domains of functioning and distress, with each score representing a particular area of concern. YOQ subscales are Intrapersonal Distress, Somatic Complaints, Interpersonal Relationships, Social Problems, Behavioral Dysfunction, and Critical Items. For the current analyses, the YOQ total score was used to examine therapeutic outcomes as it is the most as it is the most reliable and valid of all the scores.

- The **Outcome Questionnaire**[2] (OQ; Lambert, Hansen, & Finch, 2001) is a widely used self-report measure designed to assess a client's overall psychological well-being and track changes during therapy, for adults aged 18 and above.

  The OQ also assesses several dimensions of functioning: Symptom Distress, Interpersonal relationships, and social role. Similar to the YOQ, the total score was used to capture therapeutic impact as it is the most robust.

- The **McMaster Family Assessment Device**[3] (FAD) was developed to assess family functioning across several dimensions (Epstein, Baldwin, & Bishop, 1983) and is widely used to identify areas of strength and concern within family systems. It is appropriate for use with clients aged 12 and older.

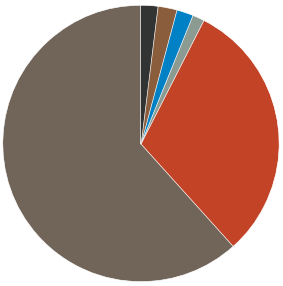
- A **Demographic instrument** was developed by project coordinators and administered to understand study participants' characteristics (e.g., age, gender identification, sexual orientation, living arrangement) and other factors which might impact treatment readiness and response (e.g., current medication, prior treatment experiences, use of transport, substance use).

Several different approaches were used to understand findings and will be presented below. First, statistical significance indicates that results, in this case defined as clients' improvements in psychological functioning are **real** and not the result of random chance. However, statistical significance does not reflect the importance of the findings or whether Outdoor Behavioral Healthcare interventions can be expected to result in important improvements in clients' lives. Thus, effect sizes also are calculated, providing a useful estimate of how **meaningful** the results are, beyond statistical significance. Effect sizes also allow for comparison of results across different outcome instruments.

DEMOGRAPHICS

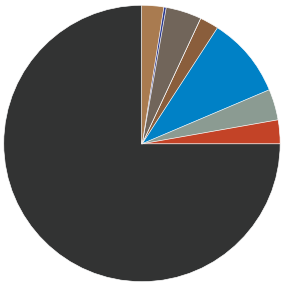
See below for demographics for study participants. Charts reflect the entire sample of adolescents and young adults when there were not proportional differences between these age groups. In instances where there were significant differences between adolescents and young adults, separate charts are provided.

Gender Identity



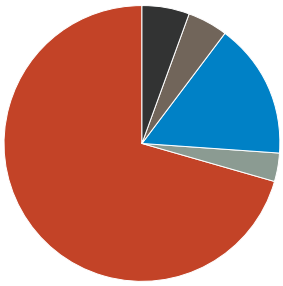
- 61.5% Male
- 30.9% Female
- 1.5% Transgender
- 1.9% Gender Fluid
- 2.3% Other
- 2.0% I am not sure

Living Arrangement Prior to Admission



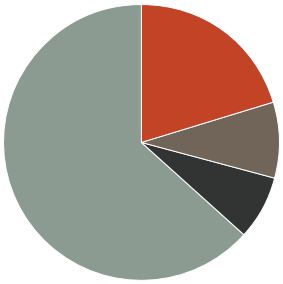
- 75% With a parent or guardian
- 2.7% With another relative
- 3.6% Hospital
- 9.5% Another therapeutic program
- 2.0% Academic boarding school or college
- 0.1% Foster care
- 4.1% Runaway or living on own
- 0.5% Juvenile justice program or jail
- 2.5% Other

Sexual Orientation



- 70.3% Heterosexual (Straight)
- 3.5% Homosexual (Gay or Lesbian)
- 15.8% Bisexual
- 4.6% Other
- 5.7% I am not sure

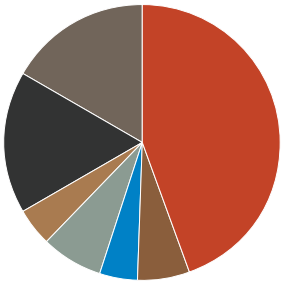
Medication Use Upon Admission



- 63.2% Yes, I am taking them regularly as prescribed
- 7.6% Yes, but I am taking them inconsistently
- 8.8% No, I am not taking them, but have been prescribed them
- 20.4% No, I have not been prescribed them

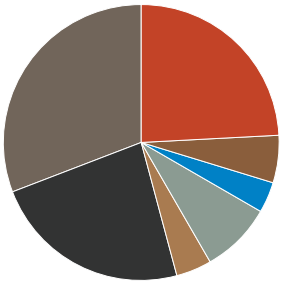
Past Month Drug Use

Adolescent



- 16.4% Daily
- 16.8% A couple of times a week
- 4.5% Once a week
- 7.1% A couple times a month
- 4.4% Once a month
- 6.1% Less than once a month
- 44.7% Not at all

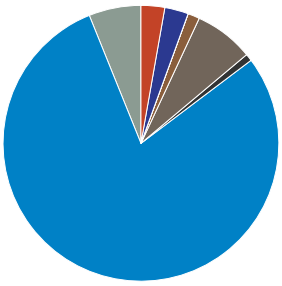
Young Adult



- 30.6% Daily
- 23.3% A couple of times a week
- 4.3% Once a week
- 8.3% A couple times a month
- 3.7% Once a month
- 5.5% Less than once a month
- 24.2% Not at all

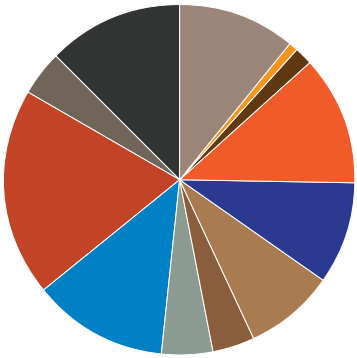
ADOLESCENT ONLY DEMOGRAPHICS PROVIDED BY PARENT OR RELATIVE

Ethnicity



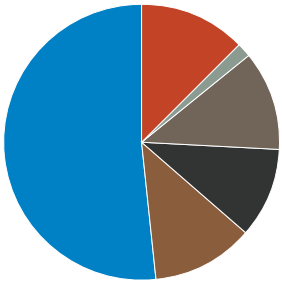
- 3.0% Black or African American
- 3.2% Asian or Asian American
- 6.5% Hispanic or Latino
- 87.9% White
- 0.8% American Indian or Alaskan Native
- 7.9% Multicultural
- 1.4% Other
- 0.1% I don't know

Reason for Admission to Outdoor Behavioral Healthcare Program



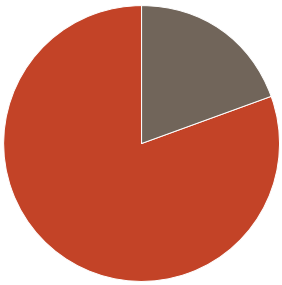
- 12.5% School Problems (Truancy, Grades)
- 3.9% Running Away
- 19.4% Drug / Alcohol Use
- 12.5% Suicide Risk
- 4.7% Self-Harm
- 3.8% Online/Social Media/Gaming Behaviors
- 8.3% Agressive Behaviors
- 9.4% Social Problems / Isolation
- 12% Family Conflict
- 1.8% At Risk Sexual Behaviors
- 0.8% Trouble with the Law
- 10.9% Failure to Engage/Progress in Treatment

Use of Transportation Services



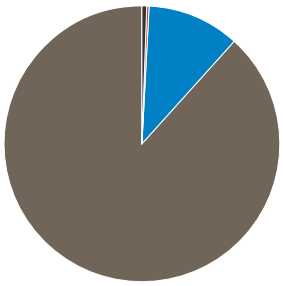
- 51.5% I did not use transport service
- 12.0% My child refused to go to treatment
- 10.6% To reduce the chance my child would run away on the way to the program
- 11.6% The possibility my child would fight, be violent, or self-injurious after finding out he/she was going to treatment
- 1.7% It was inconvenient to bring my child to treatment myself
- 12.6% A transport service was suggested by the treatment program or referring professional

Adoption



- 80.3% NO
- 19.7% YES

Client Relationship Status (Young Adults Only)



- 88.3% Single
- 10.7% Married / In a committed relationship
- 0.2% Divorced
- 0.8% Separated

TREATMENT READINESS/ENGAGEMENT

Adolescents and young adults provided their agreement with the statement "It makes sense for me to be in this treatment program."

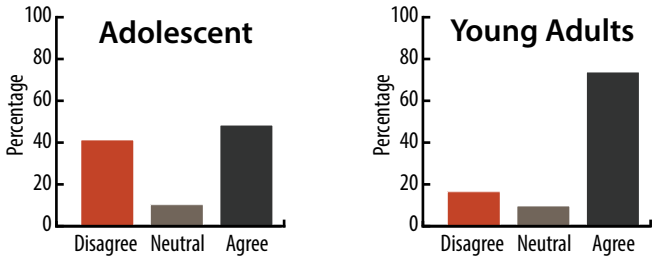


Fig. 1

TREATMENT MOTIVATION

Adolescents and young adults provided their agreement with the statement "I would like to make positive change in my life."

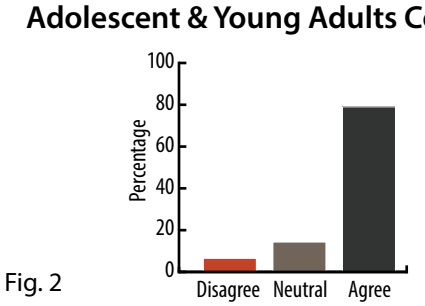


Fig. 2

CLIENTS' PERCEPTION OF THEIR CLINICAL NEEDS

Adolescents and young adults indicated how much therapeutic progress they believe they need to make in their current treatment program.

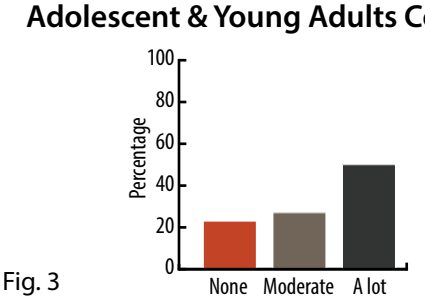


Fig. 3

RESULTS

Overall Outcomes as Reported by Client and Their Parent

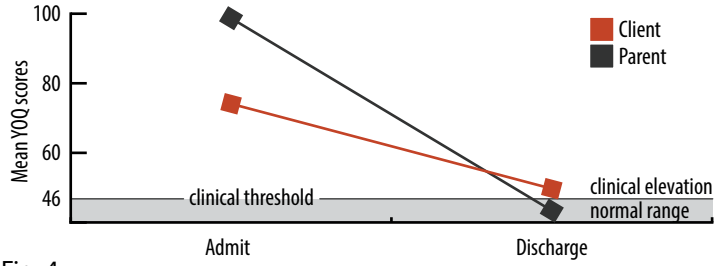


Fig. 4

Both adolescents and their parents reported significant improvements in overall psychological functioning associated with Outdoor Behavioral Healthcare programming, suggesting important and meaningful changes (medium to large effect size) and their parents (very large effect size).

Overall Outcomes as Reported by the Young Adult

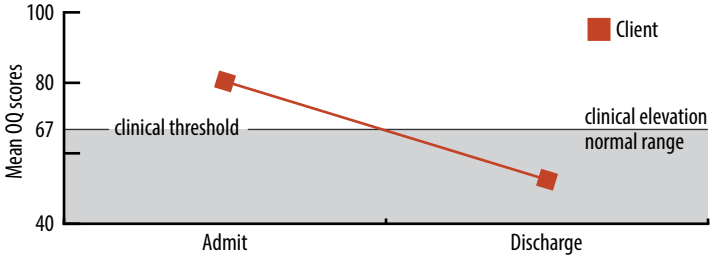


Fig. 5

Young adults report significant Improvements in overall psychological functioning associated with Outdoor Behavioral Healthcare programming, suggesting important and meaningful changes in the clients' scores (very large effect size).

Overall Outcomes as Reported by the Adolescent Client and Their Parent, Based on Gender

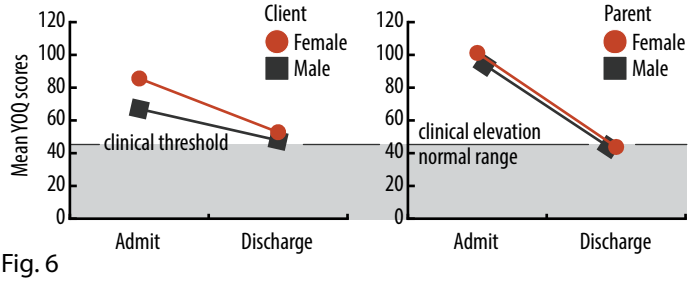


Fig. 6

Gender had a significant impact on clients' self report of therapeutic improvements. More specifically, females reported more problems at admission and a greater degree of improvement at graduation as compared to males, although the impact was small. There was no significant gender difference in parents' report of therapeutic gains.

Overall Outcomes, by Gender, as Reported by the Young Adult

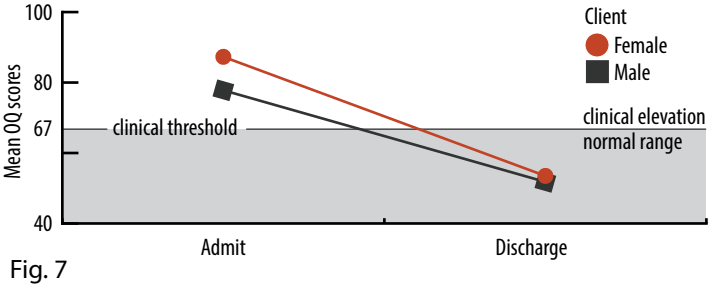


Fig. 7

Gender had a significant impact on clients' self report of therapeutic progress, although it was small. More specifically, females experienced a greater degree of improvement, following treatment, as compared to males. The impact of gender on clients' overall improvements was found to be small (small effect size).

Overall Adolescent Outcomes Based on Prior Treatment, as Reported by the Client and Their Parent

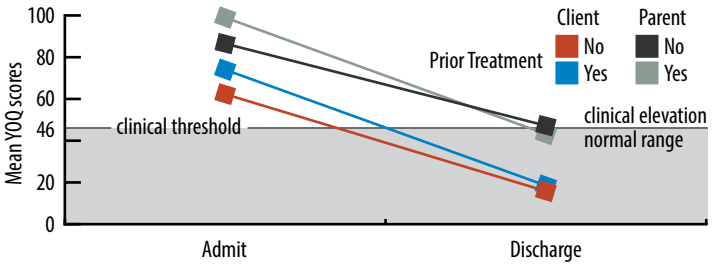


Fig. 8

Prior therapy had a significant impact on clients' self-report of therapeutic gains, although small. More specifically, youth who had engaged in therapy prior to their admission to Outdoor Behavioral Healthcare programs reported significantly more dysfunction at admission and a greater degree of improvement at graduation, compared to clients who had not participated in treatment previously as reported by both the youth and their parent.

Overall Adolescent Outcomes Based on Current Psychiatric Medication Use, as Reported by the Client and Their Parent

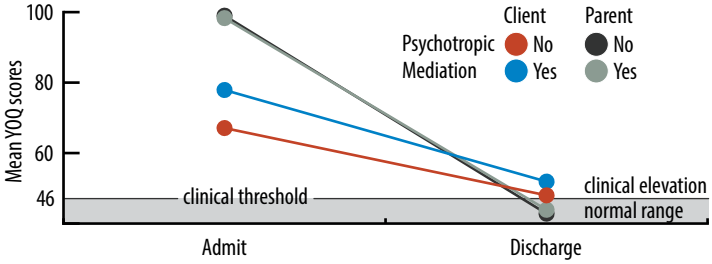


Fig. 9

Current medication use had a significant impact on clients' self-report of therapeutic gains, although the effect was small. More specifically, youth currently taking psychiatric medication reported significantly more dysfunction at admission and a greater degree of improvement at graduation as compared to clients who were not prescribed medication. The current use of medication did not have an impact on parents' report of adolescent's therapeutic progress.

Overall Adolescent Outcomes Based on Prior Substance Use as Reported by the Client and Their Parent

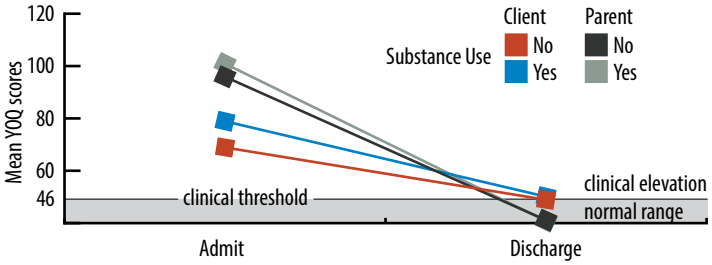


Fig. 10

Prior substance use had a significant impact on clients' self-report of therapeutic gains. More specifically, youth reporting a history of substance use had greater dysfunction at admission and a greater degree of improvement at graduation as compared to clients without a reported substance use history, although the impact was small. A substance abuse history did not have an impact on parents' report of adolescents' therapeutic progress.

Overall Adolescent Outcomes Based on the Use of Transportation Services as Reported by the Client and Their Parent

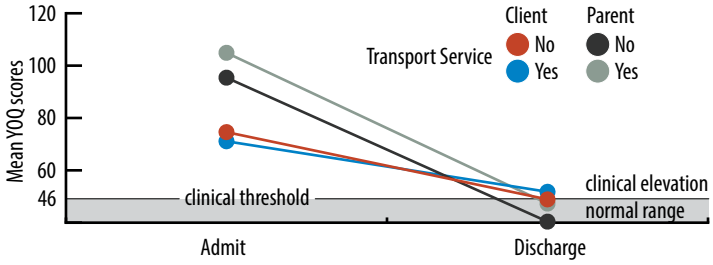


Fig. 11

Results suggest that clients' overall therapeutic progress was not significantly impacted by the use of transport services, either as reported by adolescents or their parents.

Therapeutic Improvements in Family Functioning

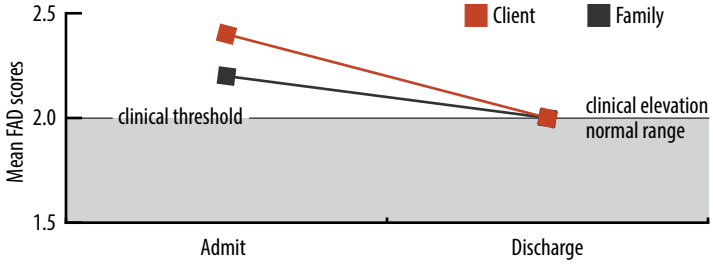


Fig. 12

Both adolescents and their parents reported significant Improvements in overall family functioning, suggesting important and meaningful changes in family functioning scores as reported by the youth (medium effect size), with a smaller impact reported by parents (small effect size).

SUMMARY

The Outdoor Behavioral Healthcare Council oversaw the development and execution of a multi-site evaluation of therapeutic effectiveness in their member Outdoor Behavioral Healthcare programs. The current project is a report of these clinical outcomes, as described by adolescents and their parents, as well as young adults. Data collected between 2019-2022, from 17 Outdoor Behavioral Healthcare programs were provided for analyses and results are summarized below.

The primary results from this project are consistent with the overall body of scientific evidence regarding the effectiveness of Outdoor Behavioral Healthcare programming. Specifically, adolescents report severe psychological dysfunction when admitted to Outdoor Behavioral Healthcare programs and upon graduation, they report significant improvements in their overall mental health and family functioning. Further, these findings suggest a meaningful and positive relationship (i.e., medium effect size) between Outdoor Behavioral Healthcare participation and adolescents' report of symptom improvement, beyond simply statistical significance. Parents' and young adults' reports of symptomatic improvements are even more striking than adolescents' reports, with very large impacts observed following participation in outdoor programming.

Taken together, these findings contradict the contemporary criticism from a group of prior clients that Outdoor Behavioral Healthcare programming is ineffective, unnecessary, and traumatic. In fact, the majority of the current sample of adolescents do not disagree with their admission to the Outdoor Behavioral Healthcare program, but rather confirm their understanding of the need for program admission (58% agreed or were neutral to the question "It makes sense for me to be in this program"). As described above, current results reflect global and extensive symptomatic improvements, reported by over 4,000 clients across 17 different programs. This suggests that it is not a specific intervention or standardized approach utilized by a particular OBH program that accounts for the positive impact. Rather, the overall therapeutic modality, which includes consistent components across programs (e.g., experiential therapeutic experiences in a novel outdoor environment), is associated with the broad improvements observed in this project.

There also have been marked criticisms regarding the use of transport services to bring resistant adolescents to Outdoor Behavioral Healthcare programs. In the large sample of adolescents participating in treatment for this project, almost half (49%) of the teens were transported to their respective program by paid professionals. While transporting resistant adolescents to programs, without their consent and often a distance from their homes raises important ethical issues, Outdoor Behavioral Healthcare programming was developed, in large part, to provide therapeutic options for youth and their families, given the frequent failings of local, community-based services. And since the inception of Outdoor Behavioral Healthcare programming, many decades ago, there has been an increasing crisis in child and adolescent mental health in our communities. This is defined by escalating rates of mental health disorders and suicide, as well as a shortage of emergency care beds, qualified child and adolescent therapists, and school-based clinical services. While a comprehensive discussion of the use, ethics and impact of transport services is critical in moving forward, the use of transport services did not have a meaningful impact on adolescents' functioning in the current project. Specifically, adolescent-reported psychological dysfunction at admission was similar for teens that were transported and for those that were not. The same pattern held for graduation scores. The use of transport services did not deter therapeutic progress while in Outdoor Behavioral Healthcare treatment, as reported by a large group of adolescents and their parents.

Of course, with every program evaluation and outcome study, there are strengths and limitations. The current project is limited by several methodological issues, including but not limited to the absence of a comparison group and the lack of random assignment to treatment versus control groups. Thus, researchers are not able to conclusively state that Outdoor Behavioral Healthcare interventions caused adolescents' growth and improvement, only that a meaningful relationship exists between OBH program participation and significant progress in attendants and their families. The results from the current project should be evaluated with these contributions and limitations in mind. The gap in scientific knowledge, driven in part by the difficulty conducting experimental research with vulnerable populations offers a unique opportunity for cross collaboration. The broad field of OBH programming would benefit from interdisciplinary discussion of creative approaches to study design (please reach out to researchers at info@obhcouncil.org to express an interest or further the discussion).

The criticisms leveled by prior clients – and their experiences in Outdoor Behavioral Healthcare programs—are emblematic of the key challenges in delivering non-traditional treatment interventions to vulnerable populations. They also demonstrate the power of social media campaigns and the critical need for affordable, accessible psychological support for children, adolescents and their families, particularly in the current climate of escalating mental health needs and social isolation in teens. The important, positive therapeutic outcomes demonstrated in the current project – and reported by adolescent participants themselves– suggests that Outdoor Behavioral Healthcare programming may be a critical component in a continuum of mental health care for select clients. Future research should continue to investigate the therapeutic utility of OBH programming, using well-controlled research designs. Given the significant challenges facing youth today and the growing impediments to obtaining effective mental health services in the community, high quality OBH programs may help meet the mounting treatment needs of contemporary youth. Given that they have demonstrated strong practical and functional improvements in their clientele, increasing our understanding of the strengths and limitations will help match adolescents and their families to appropriate and effective OBH programming in the future.

CITATIONS:

1. Burlingame, G. M., Wells, M. G., Lambert, M. J., & Cox, J. C. (2004). *Youth Outcome Questionnaire* (Y-OQ). American Professional Credentialing Services.
2. Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). The McMaster Family Assessment Device. *Journal of Marital and Family Therapy*, 9(2), 171–180. https://doi.org/10.1111/j.1752-0606.1983.tb01497.x
3. Lambert, M. J., Hansen, N. B., & Finch, A. E. (2001). The Outcome Questionnaire-45. In M. J. Lambert (Ed.), *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment* (2nd ed., pp. 831–869). Lawrence Erlbaum Associates.

Sarah "Salli" Lewis, Ph.D. is an independent clinical researcher.

The research findings discussed herein are based on data provided by the Outdoor Behavioral Healthcare Center at the University of New Hampshire (now known as Outdoor Research Collaborative). The author was not responsible or involved in the standardization, administration, or oversight of data collection or data storage. Moreover, data used in the current analyses were extracted from a larger database; the time frame was chosen because it included the most comprehensive assessment battery. Lastly, data were included in this project if participants provided responses to all survey questions.

OBH Council

According to the Outdoor Research Collaborative, **Outdoor Behavioral Healthcare** (OBH) programming is a powerful, safe, and transformative treatment modality for adolescents and young adults, addressing critical gaps in the mental healthcare continuum. OBH fosters meaningful psychological, emotional, and family improvements by combining experiential therapeutic interventions with immersive outdoor environments, providing a unique opportunity for clients to engage deeply in therapeutic work. OBH often achieves results that traditional, community-based services struggle to deliver, therefore holding tremendous promise as a critical component of comprehensive mental health care for vulnerable youth and young adults.

— Outdoor Research Collaborative, 2025 (www.orcollab.org)