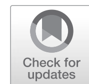

21 Wilderness Therapy

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Introduction to Outdoor Behavioral Healthcare

The field of child and adolescent mental health requires an integrated service delivery system in order to meet the complex treatment needs of clients across a continuum of care. In order to develop best practices and treatment guidelines, this book examines the intricacies and protocols of day treatment for children and adolescents. Day treatment serves youth with acute mental health needs, though not severe enough to require hospitalization, and can be a step-up on the way to hospitalization and a step-down from hospitalization (Substance Abuse and Mental Health Services Administration (SAMHSA), 2006). Though day treatment provides an outpatient community-based option to serve highly acute youth with serious emotional, behavioral, and substance abuse issues, there are times when youth may need a more residential setting to address their treatment needs through a meaningful separation from their families and communities (Harper & Russell, 2008). If an adolescent has high-risk behaviors associated with a mental health or substance use disorder that cannot be effectively treated in a community-based setting or is unsafe to continue treatment in a community-based setting, families may look to wilderness therapy as a next step on the continuum of care (Scott & Duerson, 2010). In fact, 25% of youth who attend programs affiliated with the Outdoor Behavioral Healthcare Council have participated in day treatment or intensive outpatient programs before attending wilderness treatment programs (Outdoor Behavioral Healthcare Center, 2021).

This chapter is an overview of wilderness therapy programs that provide outdoor behavioral healthcare (OBH). OBH is part of the larger field of adventure therapy. “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., 2020, p. 1). Adventure experiences include any activity that provides challenge to the client, requires problem-solving, and involves elements of communication and cooperation to complete (Alvarez et al., 2021). Active engagement in these experiences not only allows the client to be immersed physically and

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behaviorally but also allows clients to consider their thoughts and emotions that arise in real time. Adventure therapy is a holistic intervention where practitioners use intentionally crafted activities to engage clients in a multisensory experience where clients have the opportunity to learn and rehearse real life skills (Alvarez et al., 2021).

While OBH is also facilitated in community settings, the focus of this chapter is on OBH practice that closely aligns with wilderness therapy. This intervention includes a 24-hour intermediate level of care and an outdoor group living environment that provides post-acute care through group, individual, and family therapy (Tucker et al., 2016a). According to Gass et al. (2019), "these therapies are designed to address behavioral and emotional issues by utilizing treatment modalities centered on nature, challenging experiences combined with reflection/mindfulness, interpersonal development, and intrapersonal growth" (p. 3). OBH programs may provide a next level of care for youth and young adults in need of a more comprehensive treatment approach (Scott & Duerson, 2010). However, the decision to move from outpatient to inpatient or residential treatment is one that requires significant clinical assessment and should not be made lightly. If clinically indicated, moving through the continuum of care into a more comprehensive and residential level of care should be a collaborative process with the youth client as much as possible. The intervention should not be aimed at "fixing" the youth client, but rather creating change in the entire family system (Tucker et al., 2016b).

Though beyond the scope of this chapter, OBH programs should work with youth and families to develop care plans that enhance the voluntary commitment of clients to pursue treatment, this includes minimizing the use of involuntary youth transport and avoiding any coercive practices that may re-traumatize clients. Currently, these practices are under scrutiny, and the field of OBH has responded by adhering to ethical guidelines and accreditation standards to enhance risk management and promote ethical and effective treatment (Norton et al., 2014). This chapter seeks to elevate treatment standards by including clinical information related to best practices in assessment, treatment implementation, and program evaluation.

Origins of Outdoor Behavioral Healthcare

The origins of OBH can be traced back to the emergence of summer camps in the United States in the 1800s (Gass et al., 2020). Some of the earliest organized summer camps such as Camp Chocorua (1881) were created to focus on the physical and mental growth for young people during the unstructured months of summer due to a perceived moral decline of youth due to industrialization. Camp Ramapo and Dallas Salesmanship Club Camp (1946) were the first camps to specialize in emotionally challenged young people and employ professional mental health workers such as psychiatrists, social workers, and counselors. The emergence of Outward Bound USA, Brigham Young University 480, and Youth Leadership Through Outdoor Survival marked the start of mountaineering, and survival-based character development and personal growth programs in the United States aimed to serve challenging populations such as juvenile offenders and college dropouts (Gass et al., 2020).

As these programs saw growth and success, the programs continued to adapt to serve more diverse populations for mental health and substance abuse treatment. Project Adventure (1971) marked the beginnings of moving adventure-based therapy into school and hospital settings using a variety of experiential activities such as ropes courses and challenge initiatives (Gass et al., 2020). Between 1970 and 1990, there was a rapid growth of wilderness therapy programs beginning to emerge with different population focuses and general program models. Along with rapid growth in the field, came the need for standard practices throughout the field to ensure professionalism, safety, and efficacy. In 1996, leaders from wilderness therapy programs joined together to form the nonprofit organization called the Outdoor Behavioral Healthcare Council

(Russell, 2003a). This council introduced the term OBH in an effort to align better with traditional behavioral health (Gass et al., 2020). Since then, professional groups such as the Therapeutic Adventure Professional Group (TAPG) of the Association of Experiential Education (AEE), the Outdoor Behavioral Healthcare Council (OBHC), the Outdoor Behavioral Healthcare Center at the University of New Hampshire, and several state licensure boards have worked together to create best practices, ethical guidelines, and risk management procedures based on research for programs to adhere to and demonstrate for accreditation (Gass et al., 2020). Accreditation encourages high standards of practice in the field of Outdoor Behavioral Healthcare.

Program Characteristics

Multimodal, Multisystemic, Multidisciplinary Treatment Team

OBH programs use a multimodal, multisystemic, multidisciplinary treatment team model of integrated care (Tucker et al., 2016a). All experiences throughout the day are considered treatment, and everyone involved is considered a part of the treatment team. The OBH process is based on the experiential learning cycle of action, reflection, and integration (Gass et al., 2020). It was partially developed out of Walsh and Gollins (1976) in which a participant's motivation to change is enhanced by a prescribed physical and social environment impacted by adventure- and wilderness-based experiences, the role of the instructor, success/mastery, and transfer of learning. In the wilderness therapy process, the use of metaphor is a critical aspect in the transfer of learning, which can help maximize treatment gains and link them to the client's life context outside of the treatment milieu (Hartford, 2011).

Each OBH program often identifies program goals and expectations related to the clinical and social-emotional use of the outdoor environment. OBH is designed to kinesthetically engage clients on cognitive, affective, and behavioral levels in the context of physically and emotionally safe relationships and environment (Gass et al., 2020). The difference, however, is that in an outdoor experiential setting versus a talk therapy setting, the awareness and integration of thoughts, feelings, and behaviors occurs in the context of active problem-solving and feedback in the here and now. This provides clients concrete new evidence of themselves and their capacity to grow and change, which can be hard to experience in a talk-therapy setting. OBH treatment has been described as taking traditional therapy "off of the couch and into nature" (Lavin, 2018).

This section will discuss common program characteristics such as standards of care, day-to-day programming structure, individual therapy, group therapy, family therapy, and the role of nature in wilderness therapy treatment. Although differences will exist between programs based on legislative, geographic variances, and program models, which are defined by organizational policy, there are some minimum standards of care consistent with most OBH programs, which are presented in Table 21.1 (Austin et al., 2020). Parents, mental health practitioners, and other referring professionals should carefully examine if OBH programs have these standards of care in place.

The OBH treatment team is multidisciplinary and includes masters and/or PhD level clinicians who engage in individual, group, and family therapy with the adolescent clients and their family; medical staff including doctors, psychiatrists, and nurse practitioners; the clinical supervisor or clinical director; adventure or recreational directors; and field guides. In OBH, field guides play a unique role similar to direct care staff in residential treatment centers; however, OBH field guides or field instructors often work on a 7 or 14 day rotation, living full time with adolescent clients, running daily groups, and supervising the physical and emotional safety of the group as they teach them the skills needed to live and navigate in the wilderness (Karoff et al., 2018). Field instructors are provided with intensive training upon hire as well as ongoing weekly in-service trainings (Austin et al., 2020). Clinicians and field staff work collaboratively to help clients meet their clinical goals. Clinicians usually meet out in the field with students once or sometimes

Table 21.1 Standards of care in outdoor behavioral healthcare programs

1. Services are provided and overseen by mental health professionals licensed in the state the program operates
2. Care coordination occurs with other care providers and social services
3. Clinical assessment at time of admission and ongoing to ensure appropriate treatment fit
4. Individual and group therapy
5. Family therapy or other family programming to engage parents and/or guardians in the treatment process
6. Appropriate supervision ratios as defined by the state licensing and/or accrediting organization
7. Medical history review and examination prior to participation in the outdoor program
8. Supervised medication administration or self-administration
9. Nursing staff on-site or on call and available 24 hours a day
10. On-site supervision in compliance with licensing and accreditation standards (generally, 24 hours per day, 7 days a week, although some activities, such as Solos[a], may have exceptions)
11. Parent training or development curriculum
12. Preliminary treatment plan at admission and more refined treatment plan to guide treatment course
13. Discharge planning prior to leaving treatment and a discharge summary completed by a licensed mental health professional
14. Initial and ongoing psychiatric evaluation as defined by the treatment plan
15. Psychosocial assessment by a licensed mental health professional
16. Therapeutic outdoor activities as defined by the treatment plan to support the achievement of clinical goals

[a]Solos are when clients spend usually 24–48 hours by themselves out in nature as a time of reflection and solitude while given all the appropriate food and shelter. Clients are usually given a certain area where they do their solos, and staff are close and able to check on clients visually and verbally, if needed

multiple times per week; however, field instructors are responsible for adolescents for 24 hours per day and an essential part of the multidisciplinary treatment team (Myrick et al., 2021).

Day to Day Programming

The day-to-day programming tends to be broken up into two types of daily programming: expedition days and stationary days. On expedition days, small groups of students (usually 4–8 students led by 2–4 guides) will engage in a series of activities and groups that center around an adventure or other experiential activity. For example, when a group is on a backpacking expedition, the daily activities consist of a camp cleanup, hygiene, and breakfast. After this, the group will break down the campsite and pack up for that day's backpacking activity. Once they arrive at their destination, the group will debrief the activity, set up a new camp, engage in other experiential or academic activities as time permits, and end the day with a dinner routine. Throughout each day, there are various group processes that occur to teach, process experiences, problem solve, and promote change and growth.

The second type of daily program is for stationary days. Stationary days can occur in different ways, but a core feature is the group is not on expedition and is usually in a predetermined location or camp. The types of stationary camps vary by program, some include a primitive cabin or other camp structure, some include permanent tents such as a large wall tent, and others use mobile camp structures such as tents or other shelters the group sets up. Activities on these days include formal individual, group, and family therapy. Participants often engage in academics, and planning and preparing for the next expedition often occurs on the stationary camp days. This is also when medical or other mental health professional visits occur. Each program will vary in their day-to-day programming; however, this provides a broad overview on the common activities that occur in an OBH program.

Individual Therapy

OBH includes the application of evidence-based interventions based most notably on the principles of cognitive behavioral therapy. Along with traditional cognitive behavioral approaches, the most used treatment approaches in OBH, according to a recent program survey, include motivational interviewing and trauma-informed approaches, including trauma-focused cognitive behavioral therapy (CBT), dialectical behavioral therapy (DBT), and family-centered treatment (OBH Center, 2020).

Individual therapy often occurs with a client weekly or biweekly, and the therapist usually travels to the location of the participant while in the backcountry. Therapy occurs with nature and the outdoors as the backdrop for the session. Licensed mental health clinicians provide evidenced-based treatment for clients based on the presenting problem and clinical diagnoses. The individual treatment is guided by the individualized treatment plan. Individual therapy in an OBH program often also involves a high degree of experiential activities and interventions in addition to traditional psychotherapy methods.

Group Work

While individual and family therapy are used in OBH, the use of group work is also common and integrated throughout OBH treatment on a daily basis. Groups can be facilitated by recreational directors and field guides often guided by clinicians or in conjunction with clinical staff. While the type of groups varies across programs, below are some common groups that run across OBH programs.

Support and Feedback Groups A feedback group is a structured group that includes self-reflection, expression of emotions, and providing and receiving feedback. These groups are process focused and occur in a "circle up" or around the campfire in the morning or evening and can be used when needed during an activity. They can happen at any time and are often used when a group or individual is struggling and needs specific support. Support groups involve the inclusion of Alcoholics Anonymous or other structured support groups for clients struggling with specific issues.

Psychoeducation Groups These groups are topic focused and are intended to teach clients about models or concepts that can improve their personal life and relationships. The models, concepts, or skills that are taught in the psychoeducation groups often come from CBT, DBT, or acceptance and commitment therapy (ACT) (Alvarez et al., 2021; Gass et al., 2020; Gillen, 2003; Newes & Bandoroff, 2004). Common group topics may include cognitive restructuring skills, self-awareness practices, and coping skills practice, along with personal assignments to track progress on skills learned (Craske, 2017; Pederson, 2015; Westrup, 2014).

Mindfulness Groups Mindfulness activities are often used in OBH programs to increase awareness of emotions and help clients with emotional regulation, distress tolerance, somatic awareness, and cognitive problem-solving skills (Norton & Peyton, 2017). Norton and Peyton (2017) found that OBH programs identified relaxation breathing, guided imagery meditation, walking or sensory meditation, progressive muscle relaxation, single-pointed meditation, yoga, body scanning, and loving-kindness meditation as the primary practices used with clients. Likewise, Russell et al. (2016) found a strong relationship between mindfulness-based experiences and a reduction in wilderness therapy clients' subjective distress, which promotes improved well-being.

Reflection Groups Often at the end of each day, field instructors facilitate a reflection on the events of the day. This group includes the individual functioning of each member and the overall functioning of the group. Specific struggles are discussed, and feedback can be requested. This group is intended to create awareness around the functioning of the day and to consolidate and internalize any lessons learned from the day. This group also includes the use of journaling to document learning and to assist in the reflection process.

Adventure and Experiential Groups In addition to the activities involved with living and traveling in the wilderness, many OBH programs also intentionally include additional adventure and experiential activities with groups. These can vary from rock climbing, canyoneering, mountain biking, challenge courses, and games and

initiatives. The integration of group adventure experiences can add to the impact of OBH (Magle-Haberek et al., 2012) by providing an additional setting for participants to see how both maladaptive and adaptive ways of being impact themselves and the group. Adventure therapy activity interventions are intentionally planned and facilitated for clients to experience emotions, thoughts, and behaviors that parallel those experienced in their daily lives in the safe and healthy environment provided by the group. These activities are shaped toward individual and group treatment goals and provide clients an opportunity to rehearse new ways of coping, thinking, and communicating in relation with themselves and others (Alvarez et al., 2021). Adventure activities inherently require a healthy level of risk taking, trust in oneself and others, communication, emotional regulation, problem-solving, and adaptation, which are in line with therapeutic goals for clients in OBH programs. For example, rock climbing requires trust between the climber and belayer, communication about how the belayer can support the climber, an ability to manage any nerves or anxiety that arise with climbing off the ground, and a level of choosing how much risk to take by choosing how high to climb. This activity elicits a wide range of client engagement that can be processed with the group and clinician for therapeutic gains.

Primitive Skills Groups Many OBH programs have a primitive skills emphasis. In order to promote skill mastery, clients in an OBH program learn primitive skills relevant to their physical environment that they use to meet their emotional, social, and physical needs. These activities include primitive fires, primitive bags and chairs, lantern making, knots, lashings, cordage, and others. While these primitive skills have direct relation to survival in the wilderness environment, they also support rich metaphors that can enrich the therapeutic process for clients. For example, making a primitive bow-drill fire requires preparation, patience, resilience, and determination to get the spark required to make a coal and build a fire. Finding one's spark, inner fire, and motivation to drive forward in life requires similar skills, and this powerful metaphor is unique to the novel primitive skills required in the OBH program environment.

Family Therapy

Adolescent problems with mental health also negatively affect the lives of family and friends (O'Connell et al., 2009), not just the adolescent. While early OBH programs focused solely on adolescent and young adult mental health treatment, current best practices include providing treatment to the family system as a whole (Tucker et al., 2016b). Changes in OBH treatment include setting family treatment goals and helping families enhance family functioning. The focus is on improving communication, conflict resolution, and problem-solving skills within the family system. This is accomplished using traditional family therapy modalities, psychoeducation, and experiential activities with the family unit.

While an adolescent is attending OBH, weekly family therapy sessions with the guardians are facilitated, usually by phone or online, by the clinicians. At the beginning of treatment, this is often done without the adolescent present, as a common goal of OBH programming is to assess and disrupt unhealthy family dynamics. Although specific family therapy models for OBH are limited, there is some research on effective family therapy models being applied in OBH (Merritts, 2016).

Narrative family therapy is one model that has been adapted to an OBH treatment setting. Narrative family therapy involves asynchronous interventions that can be adapted to overcome the financial and distance limitations that are inherent in having a child away from home for treatment. Narrative therapists often work alone with a client, or flexibly, with individuals and parts of families, by interacting with one person in the family while the others listen. This process or the telling and retelling of the family story makes the family an audience to each other and their personal narratives. This approach is useful in an OBH setting, as adaptation can be made to tell and retell the narratives through writing, an important feature of OBH programs (DeMille & Montgomery, 2016).

Psychoeducation is a common component of accomplishing family treatment goals. Parents participate in parenting seminars and learn essential skills and concepts to improve family functioning. Psychoeducation is done through webinars, bibliotherapy, and prerecorded video training. In addition, many programs have in person family therapy components in which the families come together with their adolescents for a multiday retreat to work specifically on family functioning, usually toward the end of treatment. All OBH programs assess their impact on family functioning by administering the Family Assessment Device (Epstein et al., 1983). Research in this area has shown that family participation is associated with superior outcomes when a family member is receiving treatment out of the home (Hair, 2005) and general improvements in family functioning (Harper et al., 2007; Harper & Russell, 2008).

Role of Nature

While OBH wilderness therapy programs provide clients with many of the same integrated treatment modalities of a traditional residential treatment program, the natural environment is an important distinction. The element of nature in OBH is commonly overlooked and undervalued. Several studies and established theories highlight the physiological and psychological benefits of human interaction in nature (Martin & Beringer, 2003; Gillis & Ringer, 1999; Mitten, 2009). The theory of biophilia supports that connection to nature is inherent, instinctual, and essential to human cognitive, emotional, and physical health (Seymour, 2016). Research has found that direct time in nature improves sleep patterns, mood, creativity, resiliency, and memory. Time in natures also reduces blood pressure and attention deficit hyperactivity disorder (ADHD) symptoms and facilitates increased executive functioning (Hart, 2016; Harper et al., 2017; Seymour, 2016). Nature is a novel environment that provides a restorative, experiential context in which clients can heal and grow (Kaplan & Berman, 2010). Learning how to cope effectively amidst the changing conditions of nature helps promote skills of self-care and distress tolerance, which can be helpful in other challenging situations; in fact, the wilderness can be seen as a co-facilitator of change (Taylor et al., 2010).

Risk Management and Safety

In 2007, the US Government Accounting Office (GAO) report and testimony before Congress entitled *Concerns Regarding Abuse and Death in Certain Programs for Troubled Youth* (Kutz & O'Connell, 2007) drew negative attention to the field of wilderness therapy. The GAO described the programs under investigation as "wilderness therapy programs, boot camps, and academies" that "provide a range of services, including drug and alcohol treatment, confidence building, military-style discipline, and psychological counseling for troubled boys and girls with a variety of addiction, behavioral, and emotional problems." This report encouraged the professional field of OBH to continue to differentiate good programs from bad programs by not only continually developing standards of practice but also forming an accreditation body to regulate these standards.

In 1999, researchers began to develop a research base informing evidence-based practice and standardized risk management practices. In 2013, the OBH Council joined with the Association of Experiential Education to create an accreditation body that developed a detailed set of ethical risk management and treatment standards (Austin et al., 2020). There are currently 20 AEE-OBH accredited programs whose operations are monitored and therefore differentiated from other therapeutic wilderness programs. These OBH programs must also be licensed and accredited within their own states, based on various criteria for either residential treatment or wilderness programs. Currently, there is no federal oversight of these programs, which is a criticism of those concerned about the lack of client autonomy and safety in totalistic treatment programs (Chatfield, 2019). However, the OBH Council consistently monitors risk management data as each member program is required to submit yearly reports on risk management.

Who Attends OBH?

Outdoor behavioral healthcare programs have provided treatment to adolescents between the ages of 12 and 18, who predominantly identify as White. Historically, OBH has provided programming for mostly White and mostly middle to upper class youth due to the cost of this type of treatment. This is a limiting factor in which it is not accessible to all youth who may benefit from it and has been an area of focus in the field. OBH is not necessarily covered by private insurance; however, with the passage of the Affordable Care Act and the Mental Health Parity Law, OBH has been increasingly covered by insurance as an intermediate level of care for youth who have failed in other community-based systems, and programs recommend families work with a healthcare advocate (OBH Council, 2019). While coverage is usually first denied and families appeal before getting reimbursement, over six million dollars has been paid to families in the past few years to cover OBH treatment (OBH Center, 2019).

Additional efforts in OBH include a focus on increasing diversity training for OBH programs and practitioners, including specific keynote conferences on diversity, equity, and inclusion at professional meetings like the Wilderness Therapy Symposium, and conducting a large scale research study on OBH with diverse youth to understand its benefits in various populations (Ray, 2021).

Until this study is completed, the most up to date data collected on OBH participants can be found in the National Association of Schools and Program's Practice Research Network (PRN). The PRN is a large aggregate database of information collected from participants across a variety of private pay mental health programs (NATSAP, 2021). Sixteen different OBH programs contribute to the PRN, which collects data at intake, discharge, and 6- and 12-months post-discharge from youth, guardians, and staff. A recent report on adolescent clients in OBH from the PRN found that 82% identified as White, 6.0% Hispanic, 2.5% African American, 3.0% Asian, 7.0% mixed race, and less than 1% American Indian/Alaskan Native (OBH Center, 2021; Tucker et al., 2016b). Most participants who attend OBH are male (68%), 30% female, and a little over 1% identify as nonbinary. Historically, most OBH participants are around 16 years old and attend OBH programs for around 65–75 days (OBH Center, 2021; Tucker et al., 2016a, b).

In addition, most youth have a history of mental health treatment prior to attending an OBH program (Bettmann et al., 2011; OBH Center, 2021). Around 85–90% of OBH participants have been previously involved in outpatient treatment, 25–30% have been previously hospitalized for psychiatric care at least one time (Bettmann et al., 2011; Lewis, 2013; OBH Center, 2021), and 25% have previously attended day treatment or intensive outpatient programs (OBH Center, 2021). Most youth (over 90%) who attend OBH programs have more than one presenting issue and are complex clients with a history of trauma (Bettmann et al., 2011; Tucker et al., 2014, 2016a). Common presenting issues include anxiety disorders, depressive disorders, attachment disorders, oppositional defiant disorders, trauma disorders, and substance use disorders (Bettmann & Tucker, 2011; Demille et al., 2018; Lewis, 2013; Norton, 2008; Tucker et al., 2014).

Treatment and Program Considerations

Admission and Exclusion Criteria

In many cases, treatment is best provided in the community that a client resides or plans to reside. However, due to the severity of symptoms, this may not be appropriate, and past attempts of community-based treatments may have failed, necessitating a higher level of care. Although program differences exist, some general guidelines for the eligibility and exclusion criteria for OBH are presented in Table 21.2. It is essential to assess a youth's current health and physical capabilities prior to placement. In many cases, medical care is more than an hour away; therefore, some clients may not be appropriate for OBH treatment. Clients with active psychotic

Table 21.2 Admission and exclusion criteria for OBH participation

Common admission criteria
Academic and employment difficulties. This includes expulsion from school, fired from work due to behavioral concerns in the workplace, chronic failure in school, employee misconduct, and refusal to attend school
Significant family conflict that disrupts the well-being of the client and/or other family members
Unable to maintain behavioral controls such as outbursts, disruptive impulsivity, and other self-destructive behaviors
Anxiety and other somatic concerns that significantly impair the functioning of the client
Depressive symptoms that significantly impair the functioning of the client
Trauma disorders, include physical and sexual trauma, combated veterans, and developmental trauma
Nonsuicidal self-harm
Past or low to moderate suicidal ideation
Illegal activity (destruction of property, theft, disorderly conduct, probation violation, etc.)
Significant social withdrawal or isolation
Clients with underdeveloped coping skills that significantly impair clients functioning at home, school, or work, such as anger management or other emotional regulation or social skills
Exclusion criteria
Active and serious suicidal ideation including expressing a wish to die and having a plan to carry out the death may not be appropriate for an OBH program
Significant risk of harm including physical or sexual violence to others. Significant destruction of property, repetitive fire setting behaviors, or harm toward animals
Significant impulsivity leading to harm of self and others
There is limited research to support OBH treatment with clients under 12 years of age and programs who provide services to clients under 12 should have clear clinical justification for doing so
OBH may not be appropriate for clients with an active and persistent eating disorder
There are medications that may cause a client to be particularly vulnerable to dehydration, heat exhaustion, sunburn, or increase cold sensitivity. Some medication may exclude clients from participation in an OBH program

symptoms may not be appropriate for treatment. These symptoms may include schizophrenia, mania, or other psychotic disorders. OBH programs also use metaphor as a regular part of treatment, and some disorders may not be able to benefit from these interventions, like youth with significant development delays, autism spectrum disorders, or low intellectual ability. There may be intellectual or communication limitations that may exclude clients from benefiting from an OBH program. There may be OBH programs that provide services to clients with some of these exclusion criteria. In those cases, programs provide specific descriptions of services offered to justify an appropriate placement of that client in the program.

Assessment

As with any healthcare intervention, screening and assessment is a vital part of the treatment process. OBH programs often utilize a variety of well-established screening, assessment, and evaluation practices. Prior to a participant's admission, the program generally undertakes a prescriptive screening to determine eligibility, indications for treatment, and the identification of contraindicated conditions. Preadmission screenings often include a review of treatment history, physical health history, and specific screenings for pain, nutrition, disabilities, trauma, and other related symptomatology and conditions that may limit one's ability to participate in an OBH program.

OBH programs often develop policies regarding the admissions approval process. This process includes gathering sufficient information about the potential participant to confidently determine the client's needs and that those needs can be met. Some attention is given to specific client-therapist fit prior to admission. Approval from clinical and administrative leadership is often required in order to determine if the participants will be better served at a different level-of-care or by another program.

Upon admission, the program commonly administers (through staff or contracted services) assessments and evaluations such as medical/physical exam, medical history and review of systems, psychiatric evaluation and review of medications, risk assessment for safety to self and others, and a biopsychosocial assessment or mental health assessment. Most of these assess-

ments are developed by programs; however, some do use more standardized tools to gather more specific psychological functioning information such as the Youth Outcomes Questionnaire (Wells et al., 2003) to get a sense of initial functioning at intake. These assessments and evaluations are used for the initial development of traditional treatment plans and individual goal setting. Throughout treatment, the treatment plan is reviewed and updated to reflect new information and adjustments in treatment goals, problem areas, objectives, and interventions used to accomplish desired outcomes.

Another common type of evaluation received in OBH programs is a complete psychological evaluation. A psychological evaluation, sometimes referred to as "testing and assessment" or a "psych eval" (different from a psychiatric evaluation administered by a psychiatrist to determine medication needs), is administered by licensed psychologists (Bettmann et al., 2014). The evaluation includes tests and other assessment tools to measure and observe a client's symptoms and behaviors to arrive at a diagnosis and to guide treatment (American Psychological Association, 2013). Examples of standardized measures used for these formal evaluations can include the Minnesota Multiphasic Personality Inventory-Adolescent (MMPIA; Butcher et al., 1992), Millon Adolescent Clinical Inventory (MACI; Millon et al., 2006), the Woodcock Johnson III (Wendling et al., 2009), and the Substance Abuse Subtle Screening Inventory for Adolescents (SASSI-A; Miller & Lazowski, 2001) to name a few. Programs may recommend a complete psychological evaluation in order to gain a more comprehensive understanding of a client's history, strengths, limitations, etc., as compared with others of similar age and demographic background.

Psychological evaluations help the client, family, and program understand the current issues at hand in the context of the whole person, including symptoms and conditions that may be affecting current behaviors but are not being specifically addressed as a treatment issue. Conventional components of a psychological evaluation include, but are not limited to, a clinical interview, review of records, informant (e.g., parent) interviews, mental status exam (i.e., alertness, speech rate, affect, and attitude and insight), and assessments of intellectual abilities (e.g., IQ and memory), achievement (e.g., reading, writing, spelling, and learning disorders), personality (e.g., patterns and preferences), and assessments or screenings of specific symptoms and conditions (e.g., substance abuse, depression, anxiety, abuse/trauma, mood, ADHD, and social-emotional). The results of these components are then interpreted by a psychologist and conclusions are determined. Conclusions often include International Classifications of Diseases-11 (World Health Organization, 2019) and/or Diagnostic and Statistical Manual of Mental Disorders-5 (American Psychiatric Association, 2013) (DSM-5) diagnoses, identified treatment issues, recommendations for treatment, and treatment prognosis.

Program and Clinical Goals

While each OBH treatment program will have unique differences and treatment approaches, there are commonly accepted program goals and expectations. Treatment is customarily targeting specific emotional, behavioral, social, and physical needs of the participant. Safety, both emotional and physical, is often the paramount program goal. This allows each participant to more effectively address individual treatment goals in immediate and long-term efforts.

Clinical involvement is also of central importance to the OBH treatment approach. In the early evolution of OBH treatment, clinically trained therapists and counselors were included in programming to provide psychotherapy and counseling in the field. Full-time doctoral-level licensed psychologist involvement can be traced back to 1988 (Gass et al., 2020). Since then, the sophisticated clinical treatment that had been more common in traditional inpatient and outpatient treatment settings has been standard in OBH treatment. Programs most often employ masters-level mental health counselors, licensed clinical social workers, clinical mental health counselors, and psychologists. The most frequently reported clinical presenting issues include school prob-

lems, substance abuse, emotional illiteracy, or behavioral problems (Russell & Phillips-Miller, 2002; Tucker et al., 2011). Clinical treatment goals often also include improving interpersonal and familial relationships, identification of symptom patterns and diagnostic criteria, development of emotional management skills, and other evidence-based interventions specific to clinically indicated diagnoses, such as depression, anxiety, substance use, and ADHD.

Other common program goals and expectations include family/system involvement, removal from disruptive environments, commitment to completion of treatment, stabilization, social skills development, resiliency building, observation, and assessment. Despite common misconceptions, often driven by a history of unregulated programs in decades past, today's program goals and expectations DO NOT include, "breaking someone down" to "build them back up," "Boot camp" style approaches, challenging participants beyond their ability to cope with, or to put a participant into a "survival" situation (Norton, 2011).

Ongoing Focus on Risk Management and Safety

As discussed earlier, OBH programs, specifically member programs of the OBH Council, are required to collect ongoing risk management data on a yearly basis. Javorski and Gass (2013) reviewed 10-years of incident monitoring trends in outdoor behavioral healthcare and found that OBH clients are at less risk than youth who did not participate in these programs and documented a lower injury rate than youth in community settings (Javorski & Gass, 2013). OBH clients were six times less likely to be restrained in treatment than youth in inpatient mental health care in the United States, based on a comparison of data from the National Association of State Mental Health Program Directors Research Institute. This research also monitored and documented decreases in client illnesses, therapeutic holds, and restraints, continuing to highlight the importance of the client's emotional and physical safety (Javorski & Gass, 2013).

Collaborations and Stakeholders

Outdoor behavioral healthcare is situated with the larger field of mental health treatment and private pay programs as well as outdoor education. Within this context, wilderness programs including OBH Council program members work collaboratively with other nonprofit member organizations such as the Gap Year Association (GYA, 2021), the National Association of Therapeutic Schools and Programs (NATSAP, 2021), the Independent Education Consultants Association (IECA, 2021), Therapeutic Consulting Association (TCA, 2021), and the Association for Experiential Education (AEE, 2021). The collaboration with other professional organizations promotes best practices with OBH programs and the various clients, professionals, and families they work with.

At the program level, in addition to the treatment team at the OBH program that oversees and coordinates the OBH treatment service, various other stakeholders are involved. These stakeholders include schools, past or concurrent medical and mental health treatment providers, social service systems, and other community members (such as religious leaders). One of the major considerations when providing treatment in an OBH program is the delivery and continuation of academic activities, for which there are several models. Some OBH programs will work with previous education providers to a continuation of their academics. In other programs, school is integrated in the program, and the program provides academic credits; hence, school collaborations are ongoing during treatment.

Research on OBH

Treatment Outcomes

The evidence base for OBH has grown significantly over the past 10 years. OBH programs affiliated with the Outdoor Behavioral Healthcare Council not only collect and report risk management data but also collect outcome data through the NATSAP PRN. The primary outcome rating tool is the Youth Outcomes Questionnaire

(Y-OQ), which measures parent assessment and adolescent self-reports and is designed for repeated measurement of clients' emotional and behavioral symptoms (e.g., at admission, during therapy, at termination, and also at follow-up intervals; Burlingame et al., 2005; Wells et al., 1996, 2003). The Y-OQ has strong psychometric properties and provides clinical benchmarks including clinical cutoffs and reliable change indices.

The development of the Outdoor Behavioral Healthcare Center in 2015 brought together research scientists from universities around the United States and Canada to contribute independent research in the field. These researchers have evaluated OBH programs and interventions both in residential and community-based settings with data from the NATSAP PRN, as well as data collected from community-based samples. Though some of this research is funded by the Outdoor Behavioral Healthcare Council and the National Association of Therapeutic Schools and Programs, all of the studies conducted by research scientists affiliated with the OBH Center have been reviewed and approved by university internal review boards to maintain research ethics and have also undergone rigorous double-blind peer review to ensure the rigor and objectivity of the research.

Overall outcomes of wilderness therapy have been explored through meta-analyses, longitudinal research, and cost-benefit analysis. Bettmann et al.' (2016) meta-analysis of 36 studies focusing on wilderness therapy outcomes with 2399 private pay clients showed medium effect sizes in the areas of improving self-esteem ($g = 0.49$), locus of control ($g = 0.55$), behavioral observations ($g = 0.75$), personal effectiveness ($g = 0.46$), clinical measures ($g = 0.50$), and interpersonal measures ($g = 0.54$), findings comparable to traditional mental healthcare services. Gillis et al. (2016) explored the outcomes of youth in wilderness and nonwilderness programs from 21 different studies that used the Y-OQ to measure changes between pre- and post-treatment. Effect sizes for youth in wilderness settings were higher than nonwilderness settings ($g = 1.38$ vs $g = 0.74$) as reported by parents, but lower as reported by youth (wilderness programs $g = 0.72$; nonwilderness programs $g = 0.89$). Despite these differences, these effect sizes were found to be larger than Bettmann and colleagues' findings (2016), yet still limited in the lack of longitudinal post-treatment data.

Several studies have aimed to address this limitation in the OBH research by looking longitudinally to see if youth who attend OBH maintain clinical improvements at 6- or 12-months post-treatment. Tucker and colleagues (2016b) found that both youth and parents reported clinically significant improvements at discharge as measured by the Y-OQ (Wells et al., 2003). Youth report these findings to last 6 months post-treatment. In this study, mothers reported their youth at 6 months to be functioning a few points ($M = 49.7$) above the clinical cutoff (47) in a clinically acute range, while fathers reported their youth to be functioning within a normative range. Combs and colleagues looked at parent Y-OQ reports on youth functioning (Combs et al., 2016b) and adolescent self-assessments (Combs et al., 2016a) and found both were on average below the clinical cutoff at 6- and 18-months post-treatment, supporting the maintenance of improvement over time. Though this research highlighted important findings, it did not require that studies include comparison groups.

Additional research has since implemented more rigorous quasi-experimental designs with comparison group studies aimed at providing evidence of OBH as a well-established, efficacious treatment for children and adolescents. DeMille et al. (2018) compared a group of youth who attended an OBH program and returned home after OBH with those who chose to seek treatment in their communities. OBH participants, as reported by their parents, were functioning three times better than the community-based treatment as usual group one year following the program as measured by the Y-OQ. Youth who remained in their communities were still at acute levels of psychosocial dysfunction during the same time span. Building on this research, the OBH Center is currently conducting a randomized control trial (RCT) study to compare the impact OBH with

CBT on youth, with an aim to address criticism of the lack of RCT research in the field (Ray, 2021).

Cost Effectiveness

Cost-effectiveness data has also been evaluated to supplement outcome and risk management research. Gass et al. (2019) compared a 90-day treatment program for both OBH and substance abuse treatment as usual (TAU; the recommended minimum by SAMHSA for substance use disorder (SUD) treatment) to calculate cost-effectiveness. The study showed that OBH is less expensive than TAU. Given higher rates of completion, this study reported OBH as a more cost-effective post-acute care treatment regimen for SUD than TAU with regard to short-term utilization, health improvement, longevity, and general societal benefits including improved worker productivity and criminal justice issues. However, given the fact that OBH treatment is often mandated for clients under the age of 18, more research is needed to explore the complexity and validity of treatment completion in youth. Though only a small subset of the overall body of research on OBH, this research provides important data supporting OBH as a promising practice within the adolescent behavioral health continuum of care.

Progress Monitoring and Research Informed Practice

Research on OBH extends beyond clinical outcomes, as there has been a rise in the use of progress monitoring across OBH programs (Gillis et al., 2016; Russell et al., 2018). Best practices suggest that clinicians engage in ongoing monitoring of progress of their clients weekly or biweekly during treatment, not just at the beginning and end of treatment (Lambert, 2017; Russell et al., 2018). In addition, inclusion of the client in the process can increase the success of treatment, as clients can see their report of their functioning and reflect on what is driving their improvements as well as setbacks in order to redirect treatment if needed (Dobud et al., 2020; Russell et al., 2018). It is argued that progress monitoring in OBH treatment should be the norm not the exception as it helps to see when change occurs and empowers clients to be engaged and active in their treatment (Dobud et al., 2020; Russell et al., 2018).

Research Limitations

Despite a large growth in research on OBH in the past 10 years, gaps in the research remain, including population specific research to determine what type of client and what clinical issues are best served by OBH, as well as who or what issues may be contraindicated. Like any intervention, there cannot be a one-size-fits-all approach, and there needs to be a research on the psychological risks or pitfalls of this type of therapy as well. Furthermore, research needs to be conducted on where OBH should exist on the continuum of care. Far too many clients leave OBH programs, only to go on to some other form of residential treatment, and more research is needed to see if this ongoing involvement in residential care is necessary or if it can have diminishing returns. This tendency also creates barriers to conducting longitudinal research on OBH when clients are moving on to other forms of care, creating numerous variables that need to be accounted for. Future research also needs to highlight the youth perspective regarding the often mandated aspects of the treatment process, including issues of involuntary youth transport. Although several studies have shown that involuntary youth transport does not negatively impact overall treatment outcomes (Tucker et al., 2015, 2018), little to no research exists looking at the lasting traumatic effects on youth clients, as well as possible ruptures in the family system when treatment is forced upon the youth. In addition, one of the main limitations of existing OBH research, particularly about wilderness therapy, have been critiqued as lacking rigor due to the lack of randomized control group studies. While efforts are currently underway to address this limitation (Ray, 2021), the field remains open to scrutiny as it is unclear if OBH interventions are indeed responsible for client improvements or if clinical gains are due to other factors (Dobud & Harper, 2018).

Research has broadly examined outcomes related to youth and family functioning but has not provided enough insight about the process

variables that may or may not be related to the change process. Researchers have sought to "unlock the black box" of OBH and adventure therapy by creating the Adventure-Therapy Experience Scale (ATES; Russell & Gillis, 2017). This psychometric scale can be used alongside measures of treatment efficacy to better understand the therapeutic components of the intervention, focus on being in nature, challenge and adventure activities, interpersonal and intrapersonal opportunities for growth, as well as reflection and mindfulness (Russell & Gillis, 2017). Using the ATES, preliminary research has shown weeks in treatment when clients reported higher levels of challenge/adventure and mindfulness are associated with lower OQ scores, reflective of healthier mental health functioning (Russell et al., 2017). Although the past 20 years have shown a large increase in the amount of research on OBH treatment, which supports clinical improvements for youth clients, future research needs to focus on the factors that influence change in OBH (Russell et al., 2017) and explore when during treatment that change occurs (Russell et al., 2018; Dobud et al., 2020), utilizing comparison groups to improve the scientific rigor of these studies (Dobud & Harper, 2018).

Additional Considerations

Medical Insurance and OBH

Insurance coverage is continually changing, covering greater services, particularly regarding mental health and substance abuse coverage. Insurance companies recognize established mental health practices, which historically fell generally into inpatient hospitalization and outpatient therapy. Intensive outpatient care and partial hospitalization care were some of the first major mental health services to be recognized and reimbursed by insurance companies and later expanded to include residential treatment centers. These facilities offer longer-term intermediate care for patients suffering from chronic mental health issues. The passage of the 2008 Mental Health Parity and Addictions Equity Act also played a role in health insurance carriers beginning to offer coverage for residential treatment facilities (Lavin & Gass, 2019).

The American Hospital Association's recognition of OBH care as a viable form of treatment and the National Uniform Billing Committee's establishment of an insurance billing code for OBH care in July 2016 ("Outdoor/Wilderness Behavioral Healthcare, Revenue Code: 1006") were important steps forward for OBH treatment. This billing update and the corresponding change to the UB-04 billing manual support OBH's increasing recognition by both the general medical community and federal organizations as a valid treatment modality (Lavin & Gass, 2019). Further, outdoor behavioral health programs are now eligible for national accreditation under well-established and trusted organizations, such as The Joint Commission's Comprehensive Accreditation Manual for Behavioral Healthcare (The Joint Commission, 2021). Historically, insurance providers have denied OBH treatment claims classifying them as "experimental" or "unproven." However, through the rise in attention to risk management outcomes research in the field and accreditation, OBH programs have been able to work with insurance companies and provide the necessary evidence showing how OBH Council programs are safe and effective.

Diverse Populations in OBH Programs

While increased insurance reimbursement will create more opportunities for diverse populations to have access to treatment, this is an area in which OBH programs need to grow and improve. For many years due to the nature of OBH being private pay, programs have predominantly served clients who identify as white and report incomes within the middle and upper class (Combs et al., 2016a). Hence, it is unclear the true impact of OBH on participants of color, as their representation in the research is small in size and often not analyzed (Combs et al., 2016a, b; Tucker et al., 2016b, 2018). Scholars in the field have addressed the importance of cultural issues in adventure programming and adventure therapy and the need to apply culturally sensitive frameworks so that the treatment modality is culturally relevant (Chang et al., 2016). For families of some cul-

tural backgrounds, the idea of sending their child away from home and out into the wilderness may increase anxiety and feelings of traumatic response, and again, more research is needed to adapt OBH to various cultural contexts.

OBH has recognized its lack of attention around issues of diversity, and particular focus has been given to providing educational sessions at the annual Wilderness Therapy Symposium on topics of diversity. While there is a desire to increase representation of diverse clients, there is also a lack of persons of color working within OBH programs across all roles (field guides, clinicians, and leadership) (Bryant et al., 2019). Having diverse clinicians is especially important as research has found that minority clients with clinicians of a similar race (matching) drop out of therapy less, attend therapy longer, have a stronger therapeutic alliance, and have better outcomes (Meyer & Zane, 2013). In addition, clients of color find matching clinicians to better understand their lived experiences of discrimination, racism, and oppression (Meyer & Zane, 2013). Not only is an increase in representation important, but also ongoing training around diversity and equity is critical. OBH programs need to understand how to recognize inequity when it occurs and "institutionalize and promote accountability" throughout all levels of their programs (Bryant, 2019). While matching can impact treatment success for minority clients, it is also important for White clinicians to address elements of race and ethnicity when working with diverse clients. In fact, client satisfaction and outcomes for minorities are limited when clinicians fail to provide culturally sensitive care (Meyer & Zane, 2013). Hence, ongoing efforts are needed to create inclusive programs, which can attract and retain diverse staff and clinicians and responsibly provide culturally responsive treatment to diverse adolescents.

Aftercare

Aftercare refers to what happens to youth after they leave OBH programs (Bolt, 2016). Some would argue that the moving from the intensity of wilderness treatment to home is a too big transition for maintaining improvements for some youth who attend OBH (Bolt, 2016). Hence, adolescent clients may go to another residential treatment center or therapeutic boarding school after OBH treatment (Russell, 2005). While this level of intensive treatment is not mandatory post-OBH, it is important for families to understand that aftercare is an important consideration before entering treatment. This should be discussed with families as part of the decision-making process when inquiring about sending their child to an OBH Program (Becker, 2010). Aftercare planning should be part of ethical OBH treatment, as it is essential for long-term improvements. Parents and youth clients need to be a part of that discussion, and programs need to take responsibility for preparing families for leaving and getting the appropriate level of treatment following OBH participation (Becker, 2010).

Moving Forward

In the development of future wilderness therapy programs, collaboration and consultation are essential. For too long, programs were developed in isolation without consideration of best practices and client voice. The Outdoor Behavioral Healthcare Council and the Association for Experiential Education Accreditation Council may provide guidance and support for practitioners who want to develop and implement ethical and effective programming. However, client voice should also be considered in program development and evaluation, as post-program survey data shows both positive and negative experiences reported by adolescents who attended a Canadian residential treatment program that included wilderness therapy for co-occurring addition and mental health (Harper et al., 2019). Given the importance of client preference in mental health treatment, all of these perspectives should be taken into account (Swift et al., 2018).

Client preference and client voice should also factor into the method of transporting clients to treatment. Involuntary youth transport is a practice that should be minimized and used only in clinically indicated situations if wilderness therapy is to be truly trauma-informed. Though

OBH programs do not transport youth themselves, estimates suggest the use of youth transport services ranges from 30% to as high as 83% across out-of-home behavioral healthcare programs (Gass, 2018; SAMHSA, 2014). Involving youth in decisions about this practice, along with ongoing inclusion of client voice and progress monitoring, is essential for advancing the field (Dobud et al., 2020).

OBH programs should continue to collect and share risk management and outcome data, always remaining vigilant regarding clients' physical and emotional safety, and provide both step-up and step-down options for aftercare. OBH has the potential to offer meaningful alternatives for highly acute youth and their families. When youth have access to an alternative treatment option that immerses them in nature, community, and integrated clinical care, they may experience a level of treatment success unavailable to them in a community-based setting; however, it is only through the transfer of this learning back to the client's life and family context that the power of OBH can fully be realized.

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