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Outdoor Behavioral Healthcare

**Definitions, Common Practice,
Expected Outcomes, and a
Nationwide Survey of Programs**



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EXECUTIVE SUMMARY

Outdoor behavioral healthcare (OBH) is an emerging intervention and treatment in mental health practice to help adolescents overcome emotional, adjustment, addiction, and psychological problems. We have identified more than 100 OBH programs currently operating in the United States, annually serving 10,000 clients and their families. OBH programs utilize elements of wilderness therapy to help adolescents and their families, which include: immersion in an unfamiliar environment, group living with peers, individual and group therapy sessions, and educational curricula including backcountry travel and wilderness living skills, all designed to reveal and address problem behaviors and foster personal and social responsibility and emotional growth of adolescent clients. A family systems perspective guides treatment and aims to restore family functioning and support, disrupted by the problem behaviors of the adolescent clients.

The goal of this publication and study is to improve understanding about outdoor behavioral healthcare by parents, insurance companies, judicial authorities and social service agencies, public land management agencies, and Federal, State and local officials. All these parties would seem to benefit from knowing more about OBH as an emerging intervention and treatment to help troubled adolescents and their families. Thus, we define common elements of outdoor behavioral healthcare including terminology, theoretical approaches, historical origins of the practice, its growth over the last three decades, and the status of the OBH industry based on a survey of 116 programs meeting OBH criteria.

We classify two types of OBH programs: adjudicated and private placement programs. **Private placement programs** evolved from a variety of influences over the last 30 years, including therapeutic approaches to camping, wilderness challenge programs like Outward Bound, and the integration of therapeutic professionals and processes into wilderness experiences. **Adjudicated programs** grew out of need to expand traditional social services to deal with increasing adolescent delinquency and substance abuse. **Four common OBH program models** are based on how and to what degree the outdoor setting is utilized: 1) **contained expedition** programs, where clients and the treatment team remain together on a wilderness expedition; 2) **continuous flow expedition** programs, where leaders, therapists, and clients rotate in and out of on-going groups in the wilderness; 3) **base camp expedition** programs, which have structured base camps in natural environments and take expedition outings from the base; and, 4) **residential expedition** programs, which include emotional growth schools, residential treatment centers, Job Corps Centers, youth ranches, and other therapeutic designations that use wilderness and outdoor treatment as a tool to augment other services for resident clients.

Our nationwide survey of OBH programs documents the nature and extent of the OBH industry, including the number and types of programs, and the types of clients they serve. A total of 116 OBH programs were identified, with 86 participating in the survey, yielding a 74 percent response rate. Among respondents, private placement programs outnumbered adjudicated programs more than 4 to 1, with 70 private placement compared to only 16 adjudicated programs. More than 80 percent of all responding OBH programs were licensed by a variety of state agencies, ranging from judicial systems to departments of family and youth services. A smaller percentage of adjudicated programs (31%) and more than half of the private placement programs (57%) were nationally certified by agencies such as the Council on Accreditation and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

Most OBH programs served adolescent Caucasian males aged 13-17 years old with a variety of emotional and behavioral disorders, with adjudicated programs serving a more racially diverse clientele. OBH programs are being used as an alternative treatment for adolescents not successfully treated by traditional counseling services --more than three-quarters of all clients had tried other forms of counseling prior to OBH. The cost of treatment ranges from \$123 per day for adjudicated to \$161 per day for private placement programs, averaging \$151 per day. Most clients did not receive third-party payment, but some did, indicating room for more recognition by insurance companies, social service, and adjudication agencies. Extrapolation using data from the study suggest that as an industry, OBH may generate \$200 million per year in revenues and 420,000 field days use of public and private lands.

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Table of Contents

THE AUTHORS	2
ACKNOWLEDGEMENTS	2
EXECUTIVE SUMMARY	3
LIST OF FIGURES AND TABLES	6
OVERVIEW AND INTRODUCTION TO OUTDOOR BEHAVIORAL HEALTHCARE	7
PART ONE: DEFINITIONS AND REVIEW OF LITERATURE RELATED TO OBH	8
Introduction	8
Wilderness Experience Program (WEP)	8
Outdoor Behavioral Healthcare (OBH)	8
Two Types of OBH Programs: Private Placement and Adjudicated	9
Four OBH Program Models	10
OBH Treatment Team	11
Theoretical Orientations of OBH	12
OBH and Core Conditions of Change in Counseling	13
Therapeutic Factors of Group Counseling	15
Three OBH Treatment Phases	16
1. Cleansing and Assessment Phase	17
2. Personal and Social Responsibility Phase	17
3. Transition and Aftercare Phase	18
OBH Clients	18
Common Practice in Outdoor Behavioral Healthcare	19
1. Role of the Treatment Team: Cleansing and Assessment Phase	19
2. Role of the Treatment Team: Personal and Social Responsibility Phase	20
3. Role of the Treatment Team: Transition and Aftercare Phase	21
Role of Parents, Family or External Authority in OBH Process	23
Expected Outcomes in Outdoor Behavioral Healthcare	24
A. Development of Self-Concept	24
B. Knowledge and Skills Gained	25
C. Enhanced Awareness of Personal and Interpersonal Behavior	25
D. Strengthened Family Relations	25
History and Evolution of Outdoor Behavioral Healthcare	26
Influence 1. Early Therapeutic Camping Approaches	26
Influence 2. Wilderness Challenge and Rites-of-Passage Models	27
Influence 3. Primitive Skill Programs	27
Influence 4. Adjudicated Programs	28
Influence 5. Professionalism: AEE, TAPG, and OBHIC	29
Influence 6. Recognition by Insurance Companies and State Agencies	30
Influence 7. Scholarly Influences	31
<i>Kaplan and Kaplan</i>	31
<i>Davis-Berman and Berman</i>	32
<i>Bandoroff and Scherer</i>	32
<i>Russell and Hendee</i>	33
Literature Related to OBH Outcomes	36
Studies Related to Effects on Self-Concept	36
Studies Related to Effects on Social Skills	37
Studies Related to Effects On Substance Abuse	38
Studies Related to Effects on Recidivism	39
Conclusions from Literature Review	40

PART TWO: A NATIONWIDE SURVEY OF OBH PROGRAMS	41
Introduction	41
Survey Research Methods	41
Implementing the Survey	44
Survey Results	45
1. How many private placement and adjudicated OBH programs and when did they begin operation?	46
2. What OBH program models are currently operating?	47
3. How are OBH programs organized and sponsored?	48
4. How many clients are served by OBH programs and how much does treatment cost? ...	49
5. What revenues are generated by OBH programs?	50
6. To what extent are OBH programs recognized (receive-co payment) by insurance companies, licensed by state agencies and accredited by national accreditation agencies?	51
<i>Licensing</i>	52
<i>Medical Insurance Co-Payment</i>	53
<i>Accreditation</i>	53
7. What is the typical duration of treatment and how much time is spent on wilderness expedition?	54
8. What role do parents play in OBH?	55
9. What demographic categories of clients and families do OBH programs serve?	56
<i>Economic Characteristics of Families</i>	57
10. What behavioral and emotional disorders are served by OBH	58
11. To what extent have OBH clients tried prior counseling services, and are aftercare services utilized?	59
<i>Post-treatment Aftercare</i>	60
12. To what extent do OBH programs evaluate effectiveness of treatment?	61
Summary and Conclusions	63
Private placement programs clearly outnumber adjudicated programs.	63
Most OBH clients are Caucasian American males age 13 to 17.	63
Most clients have tried other forms of counseling prior to OBH.	64
OBH treatment is less expensive than traditional treatment for adolescent substance abuse and behavioral disorders, but averages \$151 per day.	64
Most OBH programs are licensed by the state and many are accredited by national organizations.	64
Medical insurance is deferring some of the costs of OBH treatment.	64
OBH as an industry generates substantial tuition revenues, maybe as much as \$200 million per year.	64
Field days of use extrapolated from data suggest that OBH may generate 420,000 user days per year.	64
Conclusions	65
LITERATURE CITED	66
APPENDIX A: LIST OF PROGRAMS RESPONDING TO SURVEY	73
APPENDIX B: QUESTIONNAIRE	80

List of Figures

Figure 1. Seven influences illustrating the historical evolution of outdoor behavioral healthcare.	35
Figure 2. Year OBH programs began operation.	46
Figure 3. Annual number of clients served by number of programs.	51
Figure 4. Gross revenues reported for 1998 by 46 OBH programs.	50
Figure 5. Family income category for OBH clients served by adjudicated and private placement programs.	57

List of Tables

Table 1. Studies identifying and classifying wilderness experience programs related to outdoor behavioral healthcare.	43
Table 2. Adjudicated and private placement programs responding to the survey.	46
Table 3. Responding OBH programs by program type and model utilized.	47
Table 4. Organizational structure by program type and model.	48
Table 5. Average per day client treatment cost, program length, and average cost of treatment per client by program type and model.	49
Table 6. The percentage of adjudicated and private placement programs who are state licensed.	52
Table 7. The number and percentage of programs who have clients receiving some co-payment for treatment from insurance, and the average percentage of client costs covered.	53
Table 8. The number and percent of responding programs who are nationally accredited.	53
Table 9. Average length of treatment in programs and percent time spent on wilderness expedition.	54
Table 10. Percentage of programs that have a defined parent curriculum, and the average number of hours parents are involved with the parent curriculum and with the program.	55
Table 11. Client gender in responding OBH programs.	56
Table 12. Average age and ethnic origin of OBH clients.	56
Table 13. Behavioral disorders accepted by OBH for treatment.	58
Table 14. Clients that have been in other forms of counseling prior to enrollment in OBH, and types of treatment.	59
Table 15. Average percentage of clients that return home after completing OBH and types of aftercare services used by clients presented by number of programs noting aftercare services and average percentage of aftercare service types.	60
Table 16. Types of evaluation procedures used by OBH programs to assess program results	61

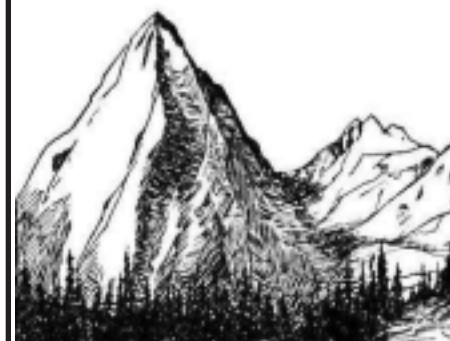
OVERVIEW AND INTRODUCTION TO OUTDOOR BEHAVIORAL HEALTHCARE

The outdoor behavioral healthcare (OBH) industry, represented by more than 100 clinically supervised behavioral healthcare and adjudicated programs operating in the United States, is a growing industry responding to the needs of troubled adolescents and their families. As the industry has grown multiple definitions and varying practices have emerged, sometimes leading to confusion and misconceptions about OBH processes and expected outcomes in intervention and treatment. The purpose of this publication is to clarify these issues using information from research and literature on outdoor behavioral healthcare and associated interventions and treatments, and our recent national survey of OBH programs. Our goal in presenting this information is to improve understanding about outdoor behavioral healthcare by parents, insurance companies, judicial authorities, public land management agencies, Federal, State and local officials and others. Our purpose is not to cover the full range of theory, practice and outcomes of outdoor behavioral healthcare. Rather, we seek to clarify and synthesize common elements of outdoor behavioral healthcare which appear in the literature, and which have emerged in research and practice over the last three decades.

In **Part I** we: 1) synthesize concepts and definitions in outdoor behavioral healthcare, including types of programs, program models, theoretical orientation, treatment phases, types of clients, and expected outcomes; 2) identify common processes and practices, including a discussion of three broad phases that guide treatment and the role of the treatment team and family or custodial authorities of the client; 3) examine expected outcomes, including development of self-concept, knowledge and skills gained, enhanced awareness of personal behaviors, and strengthened family or community relations; 4) describe some of the evolution of OBH, including seven major influences on the development of OBH intervention and treatment; 5) provide a brief overview of the OBH industry including the number of programs and number of clients served; and 6) review demonstrated effects of OBH on substance abuse and recidivism.

In **Part II**, research methods used to identify and survey the more than 100 OBH programs we found operating in the United States are described, followed by research findings and conclusions. The survey examined: 1) types and models of OBH treatment, including the role of the family in the treatment process; 2) treatment program structure and characteristics, including staffing and average length of stay of clients, 3) use of public and private lands, including percentage of time spent in wilderness and number of wilderness-user days generated; 4) financial information, including average cost per/day for treatment, funding sources which help support programs including proportional coverage by medical insurance, social service or judicial systems, and gross revenues; 5) client/family social and economic characteristics, and clinical issues which are treated by programs, and 6) evaluation and assessment procedures used by OBH programs.

By defining OBH, describing common practice and expected outcomes, and presenting data on the nature and extent of the industry, we hope to enhance understanding of outdoor behavioral healthcare with parents, social service agencies, insurance companies, judicial authorities, public land management agencies, and Federal, State and local officials. We hope it will be useful to you.



PART ONE: DEFINITIONS AND REVIEW OF LITERATURE RELATED TO OUTDOOR BEHAVIORAL HEALTHCARE

Common definitions and concepts used in outdoor behavioral healthcare (OBH) are defined in Part I.

Introduction

The following includes a broad definition of outdoor behavioral healthcare, four types of program models, an overview of the theoretical orientation, treatment phases, and types of clients with whom various OBH intervention and treatment models are used. Because parent and family involvement can be very important to the treatment of an adolescent, a section illustrates how OBH incorporates the family into treatment. Literature and theory relevant to definitions and concepts are referenced, drawing from a diverse range of disciplines including education, psychology, sociology, communication, recreation and religion.

Wilderness Experience Programs (WEP)

Wilderness experience programs (WEPs) are organizations that conduct outdoor programs in wilderness or comparable lands for purposes of personal growth, therapy, education or leadership-organizational development (Friese, Hendee, & Kinziger, 1998). Friese (1996) identified 700 and surveyed 321 programs fitting this broad definition and developed a typology of WEPs based on their primary aim, how the wilderness environment is utilized, and types of clients served. Priest and Gass (1998) place WEPs into classifications of recreation, education, training and development, and therapy. Dawson et al. (1998) found in a survey of WEPs that primary aims were personal growth, education, and therapy and healing. **Outdoor behavioral healthcare** fits into these classification schemes as they are **wilderness and outdoor treatment programs with a therapeutic focus for adolescents with emotional and behavioral problems** (Hendee, 1999a).

Outdoor Behavioral Healthcare (OBH)

Outdoor behavioral healthcare refers to programs in which adolescent participants enroll or are placed in the program by parents or custodial authorities concerned for their well-being; to change destructive, dysfunctional or problem behaviors exhibited by adolescents; through clinically supervised individual and group therapy, and an established program of educational and therapeutic activities in outdoor settings (Russell & Hendee, 2000). OBH programs utilize elements of wilderness therapy to focus client behavioral assessment and intervention by immersing participants in an unfamiliar outdoor environment, group-living with peers, individual and group counseling sessions, educational curricula and application of primitive and/or outdoor skills such as fire-making and backcountry travel, all designed to address problem behaviors by fostering personal and social responsibility and emotional growth of clients (Russell, Hendee, & Phillips-Miller, 2000).

Outdoor behavioral healthcare evolved from outdoor- and wilderness-based treatment programs for adolescents with problem behaviors, and which have been referred to in the literature as wilderness therapy (Davis Berman & Berman, 1994a), therapeutic wilderness camping (Loughmiller, 1965), adventure therapy (Gass, 1993), wilderness adventure therapy (Bandoroff, 1989), wilderness treatment programs (Kimball, 1983), and wilderness experience programs (Winterdyk & Griffiths, 1984). Numerous theoretical origins in an evolving literature about wilderness and outdoor treatment contributes to confusion by practitioners, researchers and educators as to what distinguishes outdoor behavioral healthcare from other kinds of programs.

Contributing to the confusion is that many other wilderness experience programs have different goals and expected outcomes, be they recreation, education, or personal growth. Examples include: youth recreational and personal growth programs like the Boy Scouts; science and educational programs like the Teton Science School; adventure education programs like Project Adventure; wilderness challenge programs like Outward Bound; wilderness education programs like National Outdoor Leadership School (NOLS); and, work and service programs like the Student Conservation Corps and the various State, Municipal, or Federal Conservation Corps. Although these programs are similar in some aspects, and helped form the theoretical foundations of OBH as described later, they differ on one fundamental premise: **OBH is specifically aimed at changing destructive, dysfunctional or problem behaviors in clients through clinically supervised therapy, therapeutic activities, and an educational program in outdoor settings.** Most participants go willingly to the above mentioned programs. The same cannot always be said for OBH, where clients are sometimes placed in the programs by parents or custodial authorities because of anger, denial, and lack of clarity from drug use, and/or other destructive behavior. They are sometimes unwilling to enroll in treatment and fail to see how their lives are affecting their families and the environments around them.

Two Types of OBH Programs: Private Placement and Adjudicated

There are two primary types of OBH programs: **private placement**, where parents or custodial authorities place the client in treatment, and **adjudicated**, where the client is placed in treatment by judicial authorities (Davis-Berman & Berman, 1994a, 1994b; Friese, 1996; Russell & Hendee, 2000). This distinction, is presented to illustrate different approaches, but ultimately, the same desired long-term goal: remediation of problem behaviors and restored functioning for the adolescent and their family. Private placement programs evolved over the last 30 years from influences outlined in detail later in this publication. Briefly, these include therapeutic camping programs like the Dallas Salesmanship Club; wilderness experience programs like Outward Bound; primitive skill programs developed in the late 1960s by Larry Dean Olsen and others; and the development of the Therapeutic Adventure Professional Group (TAPG) in the 1970s; and the subsequent publications of texts by Gass (1993) and Davis-Berman and Berman (1994b). Accompanying these influences has been a growing recognition by practitioners, state agencies and educators which has, over time, contributed to the legitimacy of outdoor treatment and intervention.



Four OBH program models illustrate how and to what degree wilderness expeditions are utilized to enhance treatment services for adolescent clients.

Adjudicated programs, with origins in the early 1970s in outdoor programs like those run by a large adjudicated program called VisionQuest, are usually longer, requiring commitments from participants of at least a year. These programs grew out of the failure of traditional social services alone to effectively deal with adolescent delinquency and substance abuse. Adjudicated programs usually take a direct, control-oriented and structured approach to working with adjudicated youth, drawing both praise and criticism (Ferguson, 1999; Krakauer, 1995). There is a belief by many that they are an effective alternative to traditional incarceration for certain adolescents, although scientific-based studies of recidivism and adjustment are needed to document this belief (see Wynterdick and Griffiths, 1984).

Four OBH Program Models

We identify four OBH program models based on how and to what degree the outdoor setting is utilized (Russell & Hendee, 2000). In our classification we draw upon previous typologies that categorized interventions based on primary objectives, therapeutic practice, how the wilderness environment is utilized in treatment, and length of program (Crisp, 1998; Friese, 1996). The goal in developing these models is to define four types of OBH programs to aid practitioners, parents and clients, researchers and agency personnel in better understanding how the intervention works and for whom it may be most feasible and effective. These definitions were used in the recent national survey presented in Part II of this publication and appear to be an appropriate classification for OBH programs (Russell & Hendee, 2000).

1. Contained expedition programs (CE) are those programs where clients and the treatment team remain together on a wilderness expedition for a majority of the program, and are typically up to four weeks in length. They are referred to as “contained expedition” because the therapeutic team and adolescent group remain together as a unit throughout the program, and the clients and staff begin and end the program at the same time.

2. Continuous flow expedition programs (CFE) also take place in a wilderness environment for a majority of treatment, and are referred to as “continuous flow” because leaders and therapists rotate in and out of the field working with on-going client groups. A typical rotation for wilderness leaders is eight days on and six days off. Clients also rotate in and out of the field with new enrollees joining experienced participants in on-going groups, with treatment programs usually eight-weeks in length.

3. Base camp expedition programs (BE) incorporate traditional therapeutic approaches to camping, with structured base camp activities in a natural environment for 3-8 weeks and longer. Participants leave the base camp environment on wilderness expeditions for one- to two-weeks, and return to the base camp for structured follow-up and preparation for returning home.

4. Residential expedition programs (RE) are usually longer, up to 14 months, and include so-called emotional growth schools, residential treatment centers, and other therapeutic designations, such as recovery centers, youth ranches, and the Federal Job Corps. Here, behavioral healthcare

providers use wilderness and outdoor treatment as a tool to augment other services. These programs use wilderness expeditions of up to four- weeks to intervene and address problem behaviors so residential education and personal growth can proceed more successfully. Other times expeditions are used as a reward and/or a test to demonstrate personal growth and social achievement.

OBH Treatment Team

The OBH treatment team consists of key staff at each program that work with the adolescent clients to help bring about change. A treatment team often consists of the following professionals:

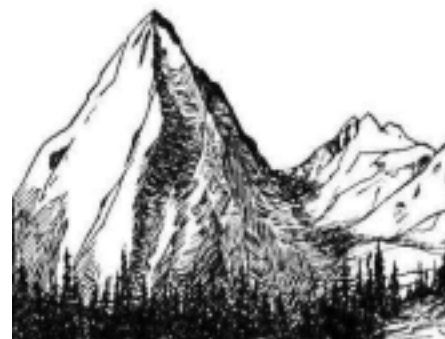
1. Clinical supervisor, responsible for the clinical treatment of the adolescent and oversees the clinical operations of the program. Duties include regular meetings with therapists, wilderness leaders and clients in the field, and periodic contact with the family of the adolescent in treatment. Clinical supervisors may hold a Ph.D. in psychology, counseling, family therapy or a related field, or are Masters degree level therapists, counselors or social workers. Qualified clinical supervision of client treatment is usually a requirement for important program certifications and eligibility for medical insurance or social service agency co-payment for treatment.

2. Medical supervisor, responsible for the medical care and treatment of the adolescent. Their duties include regular medical checkups on the client's physical condition, care for adolescents when an accident, injury or illness occurs, and regular meetings with staff on the health status of clients in the field. Medical supervisors may be medical doctors (MDs) or licensed registered nurses (RNs).

3. Field therapist, responsible for the development, implementation and follow-up of the individual treatment plans guiding the care and treatment of clients. Duties include, depending on which program model is used, daily or weekly contact with clients, leadership of individual and group counseling sessions, regular communication with parents of clients, routine meetings and contact with the clinical supervisor, and routine meetings with wilderness leaders in charge of the day-to-day group living while on expedition. Field therapists may be licensed therapists, family therapists or counselors, Masters degree level social workers, and have training in drug and alcohol treatment, and other specialty areas.

4. Wilderness leaders or guides, are responsible for the day-to-day living, safety and travel of client groups while on wilderness expedition. Duties include leading the expedition of up to 12 people in a variety of wilderness environments, such as alpine or desert, communicating with the base camp and managing day-to-day living. Wilderness leaders and guides are required to be trained in first aid, typically as a Wilderness First Responder (WFR) or an Emergency Medical Technician (EMT), have a specified

The OBH treatment team consists of a clinical supervisor, medical supervisor, field therapist and wilderness guide.



OBH is distinguished from other wilderness programs by the integration of psychotherapeutic theory with wilderness experience program theory.

amount of wilderness guiding experience, and be a college graduate. Wilderness leaders are important role models for the adolescent clients, and are an integral part of the treatment team.

Theoretical Orientations of OBH

Outdoor behavioral healthcare has evolved from many theoretical and practical influences, and derives its theory from disciplines such as education, psychology, sociology, communication, and outdoor recreation. **A key distinguishing factor of OBH from other wilderness programs is the integration of psychotherapeutic theory and practice with wilderness experience program theory.** OBH programs utilize elements of wilderness therapy, a therapeutic approach outlined in the text by Davis-Berman and Berman (1994b) and others (see Gass, 1993; Bendoroff & Sherer, 1994). To elaborate on this theoretical development and to better understand how OBH programs integrate traditional counseling approaches into a wilderness program, here we present a review of therapy and counseling theory which is relevant to helping adolescents change problem behaviors. (Additional theoretical orientations are also covered in Section 4: History and Evolution of Outdoor Behavioral Healthcare).

The goal of therapy is to heal the individual from psychological, emotional and behavioral problems. Healing involves the improvement in condition of mind and body in physical, spiritual, and emotional dimensions. Psychotherapists are frequently unsuccessful in assisting their patients to solve their problems and change their lives (Gass, 1997; Seligman, 1995). Some of the reasons clients return to old patterns of dysfunctional behavior include: (1) increased clients insights, but without addressing the underlying problems which cause stress, agitation, and frustration; (2) medicating away the symptoms *and* the underlying feelings, thoughts and experiences which could help a client resolve their problems, and (3) failing to address the importance of a client's unconscious thoughts, feelings, conflicts, and past experiences, which can have a powerful influence on human behavior (Gass, 1997).

Therapeutic approaches which are successful use methods and techniques that address the above limitations, applied in ways that break through to the causes of the client's problems. The objective is to overcome unpleasant past and present experiences through reconstruction, rebuilding, and rehabilitation of the client's own internal resources (Egan, 1994). The amount of research on different therapeutic approaches, and what might make one method-system-approach better than others is extensive, and no single theoretical model fully accounts for all unique dimensions of various therapeutic approaches. Most practitioners use an eclectic mix of various approaches in finding a style that works effectively for them (Egan, 1994). The goal for practitioners is not to rigidly subscribe to one view of humanity, and thus, one view of therapy, but to remain open and selectively incorporate a framework for counseling or therapy that is consistent with counselor qualifications and personality, the needs of the client, and the resources

available. Thus, each OBH program may employ slightly different theoretical approaches to treatment that fit their staff qualifications and world view.

OBH and Core Conditions of Change in Counseling

Four core conditions have been shown to contribute to treatment effectiveness regardless of the theoretical orientation of the counselor or program. These core conditions are necessary and must be present in the therapeutic relationship between the therapist and client to facilitate change (Rogers, 1961). Theoretical elements of OBH uniquely address each of these core conditions of change, enhancing the therapeutic process by establishing a positive relationship between the client and the treatment team. The core conditions for change are **genuineness; unconditional positive regard; empathy; and concreteness of the therapist** (Rogers, 1961).

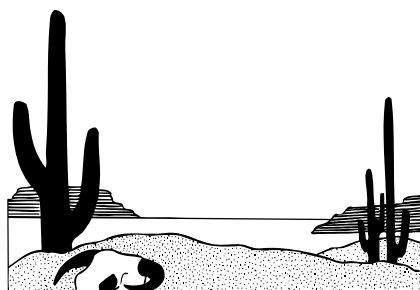
1. Genuineness on the part of the treatment team. Genuineness occurs when the therapist is congruent—that is, honest with feelings and able to communicate to the client, if appropriate, what s/he is experiencing at that moment. (Rogers, 1961). The term “congruence” has been used to describe this condition. When someone is playing a role, being fake, or saying something that is obviously not felt by the individual, it is offensive.

A key theoretical element of OBH is group and communal living in the outdoors, where the treatment team spends time with the client observing their behavior and relating to their present condition. The client directly observes the treatment team as living, eating and communicating in the same environment as they are, facilitating a connection which enhances genuineness. OBH also permits the treatment team to step back from their traditional roles as authority figures, allowing natural consequences to provide reinforcement and punishment of appropriate, or inappropriate, behaviors. As Bendoroff (1989) states “the environment assumes much of the responsibility for reinforcement and punishment, and [clients] cannot fool mother nature; consequences prescribed by the environment are real, immediate and consistent” (p. 14). Group and communal living in nature with the treatment team, and natural consequences, create an entirely different perception of the client-therapist relationship, facilitating genuineness for the treatment team in their relationship with the client.

2. Unconditional positive regard on the part of the treatment team. The second condition, termed unconditional positive regard, refers to a warm, positive, and accepting attitude of the therapist toward the client (Rogers, 1961). Whatever feeling the client is experiencing, whether it be fear, pain, isolation, anger or hatred, the therapist should be willing to accept these feelings and care for the client, i.e., be non-judgmental. This non-judgmental attitude requires the therapist to maintain positive feelings about the client without evaluating the client. The therapist should not accept the client when she/he is exhibiting certain undesirable behaviors, and disapprove when the client behaves in other dysfunctional ways.

OBH provides core conditions for client change, and enhances the therapeutic process by establishing a positive relationship between the client and the treatment team.

*...staff are seen as
role models, not the
enemy...*



A primary goal of OBH is to create a physically and emotionally safe environment (Gass, 1993). **The treatment team approaches the therapeutic relationship with compassion and patience, allowing the client to work through their resistance and anger.** They do not force change, instead allowing the environment to force response through natural consequences and utilize the informal setting to be approachable for clients. As Gass (1993) states, "...while still maintaining clear and appropriate boundaries, therapists become more approachable and achieve greater interaction with clients" (p. 9). They wait until the anger and resistance subside and then work with clients in a nurturing way to build trust and rapport.

Thus, the therapist-client relationship is different from the previous experiences that most clients have had in counseling or therapy. One staff member at an OBH program described the OBH process this way "It's not as though there's this removed sort of person who sits in a chair an hour at a time, it's also that those people providing you guidance and giving you suggestions and giving you clear feedback are also living through the same experience with you" (Russell, 1999, p. 243). Because of the unique relationship that is built with the treatment team in OBH, they are seen as role models, not the enemy, further enhancing the relationship and allowing room for discussion and discourse without the stigma of traditional therapeutic roles and environments.

3. Empathic understanding on the part of the treatment team. Empathy occurs when the therapist is accurately sensing the feelings and personal meanings that the client is experiencing in each moment, and can successfully communicate that understanding to the client (Rogers, 1961). This condition is very different from "I understand what is wrong with you" or "I, too, have experienced this, but reacted very differently." True empathic understanding occurs when someone understands what it is to *be* that person, without wanting to analyze or judge. The therapist must grasp the moment-to-moment experiencing which occurs in the inner world of the client as the client sees it and feels it, but without losing the separateness of his/her own identity in this empathic process (Rogers, 1961). When conditions of empathy are met, change is most likely to occur.

Empathy for the disposition of the client in OBH is also enhanced by the availability and presence of the treatment team through the group living experience in wilderness. "Therapeutic moments" can occur at any given time while in the wilderness. As those moments are experienced by the client, the treatment team must be available to be with the client, and work through the pertinent issues in an empathetic and caring manner. As stated by Greenwood et al. (1983) "these living conditions inspire a degree of intimacy, trust, and mutual respect that goes far beyond that found in traditional settings (in Bendoroff, 1989, p. 17).

4. Concreteness on the part of treatment team. The final therapeutic condition necessary to promote change is that of concreteness, and it is especially critical for adolescents due to their physical, life stage, neurological, and psychosocial development. The therapeutic experience for the adolescent must be concrete enough that the adolescent, who has not fully developed cognitive abilities to think in the abstract, can relate therapy to their daily lives. The therapist must be direct and specific and the lessons real and clear. Therapists who are nondirective, laid back, or highly conceptual often get an accommodating response from the adolescent, who has no idea what the therapist is really saying (Newton, 1995). Most adolescents in therapy are in the concrete operations stage of cognitive development, and communicate in black-and-white, either/or terms. The OBH treatment team directly relates tasks associated with wilderness living to the adolescent's lives, making lessons learned from the activity relevant and meaningful. The wilderness is an ideal environment to facilitate this notion of concreteness. Golins (1978), in one of the first studies on how wilderness programs enhance self-concept of adolescents with problem behaviors, noted that:

The outdoors always presents itself in a very physical, straightforward way. There are mountains to climb, rivers to run, bogs to wade through. As an adolescent delinquent whose principal mode of expression is an action-oriented one and whose thinking process is mostly concrete, the possible activities in the outdoors are limitless to fulfill his developmental capability. He just stands a better chance of excelling here. (p. 27).

Therapeutic Factors of Group Counseling

Group counseling theory is relevant to outdoor behavioral healthcare because the process of personal and interpersonal learning takes place in similar environments, with similar leadership techniques, and similar therapeutic factors at work (Davis-Berman & Berman, 1994b). Though there are too many parallel therapeutic factors at work in group counseling to review here (see Yalom, 1995, p. 1-99 for review of therapeutic factors of group counseling) it is important to discuss two key factors which are manifest in the process and practice of outdoor behavioral healthcare. They are (1) **universality** and the (2) **development of socialization techniques** (Yalom, 1995).

1. Universality in outdoor behavioral healthcare. Adolescents with problem behaviors have a clear and heightened sense of uniqueness. They usually have had consistent negative feedback wherever they have been, whether in school, family, or work environments (Felner, Aber, Cauce, & Primavera, 1995). Participants in group therapy find it a great source of relief that their feelings of uniqueness are not uncommon (Yalom, 1995). In outdoor behavioral healthcare participants see that other members of the group are experiencing the same basic feelings of inadequacy in their lives.

The OBH treatment team directly relates tasks associated with wilderness living to the adolescents lives, making lessons learned from the activity relevant and meaningful.

Through sharing their experience with a group, and seeing that their situation is not unique, a sense of universality evolves.



Picture courtesy of SUWS

As the process unfolds, the use of group therapy techniques becomes a powerful tool to discover and develop universality among participants. The first group explores the fears and expectations of the pending experience, and presents an idea that everyone must work together to accomplish the tasks at hand. Later, issues such as feelings of inadequacy and an inability to feel a sense of empathy are addressed through discussions which relate to the day-to-day activities. The wilderness environment provides a constant source of feedback from the cooperation of group members. Those who have experienced deep concern about their sense of worth, and their ability to relate to others, are empowered through these processes. **Through sharing their experience with a group, and seeing that their situation is not unique, a sense of universality evolves.**

2. Development of socialization techniques in outdoor behavioral healthcare. Social learning—the development of basic social skills—is a powerful therapeutic factor that operates in all therapy groups (Yalom, 1995, p. 15). This is perhaps the most powerful therapeutic factor at work in outdoor behavioral healthcare. It is seen as the single most limiting factor of adolescents who are trying to improve their social standing by completing their education in hopes of obtaining and keeping a job (Navarro and Associates, 1990). The development of social skills as an objective can be traced back to the very first wilderness and outdoor behavioral healthcare programs (Davis-Berman & Berman, 1994b).

Outdoor behavioral healthcare requires participants to communicate with their peers due to the very nature of outdoor living processes. This peer communication is placed in a context of a caring, compassionate, and cooperative environment through the establishment of norms and expectations of behavior. Peer confrontation is an integral part of the communication process. As clients work through problems and issues, they are practicing social skills in a safer environment, allowing them the freedom to express themselves in new ways. In a study of Job Corps students, the greatest benefit found from participation in a wilderness backpacking program was the practical application and development of social skills in a nonthreatening environment (Russell, Hendee, & Cooke, 1998; Russell & Hendee, 1997).

The therapeutic process, both from an individual perspective relating to a therapist and treatment team, and from a group perspective relating to the treatment team and other members of the group, has a primary goal of facilitating change in the adolescent. This therapeutic process, when applied in an outdoor environment, can help adolescents come to terms with their past behaviors, and develop knowledge and skills which will perhaps help them change their lives for the better. It is this process, imbedded in the theoretical orientations of therapy, group therapy and outdoor living, on which rests the theoretical orientation of outdoor behavioral healthcare.

Three OBH Treatment Phases

Outdoor behavioral healthcare is generally guided by three phases. These phases were developed through a detailed study on the process and practice of four outdoor behavioral healthcare programs (see Russell, 1999), and is based on the work of Waehler and Lenox (1994) and their review of the phases inherent in counseling models reported in the literature. The three phases are defined as: 1) a **cleansing and assessment phase**, which occurs early in the program; 2) a **personal and social responsibility phase**, a particular emphasis once the cleansing phase is well underway or complete; and 3) a **transition and aftercare phase**.

1. Cleansing and Assessment Phase

The initial goal of treatment is to address the client's behavioral and emotional problems and chemical dependencies by removing them from the destructive environments that perpetuated their behavior and addictions. The cleansing begins with a minimal but healthy diet, intense physical exercise, and the teaching of basic survival and self care skills. The client is also removed from intense cultural stimuli, such as dress, music and food. The treatment team steps back and lets natural consequences teach basic lessons of wilderness living. This cleansing process prepares the client for more in-depth work later in the program. The treatment team is also able to assess the client's behavior in this phase of the program by observing his/her coping skills in a variety of day-to-day living situations and to share this information with the clinical staff. In this manner, the client's presenting issues are assessed and/or diagnosed, so an individual treatment plan can be developed.

2. Personal and Social Responsibility Phase

After the initial cleansing phase, natural consequences and peer interaction are strong therapeutic influences, helping clients to learn and accept personal and social responsibility. Self care and personal responsibility are facilitated by natural consequences in wilderness, not by authority figures, whom troubled adolescents are prone to resist. If it rains and they choose not to set up a tarp or put on rain gear, clients get wet, and there is no one to blame but themselves. If it is required and they do not want to make a fire, or do not learn to start fires with a bow drill or flint, they will have to eat their meals cold instead of cooked. A goal is to help clients generalize metaphors of self care and natural consequences to real life, often a difficult task for adolescents. For example, adolescents may look at counselors and laugh when told "Stay in school and it will help you get a job." These long-term cause and effect relationships are made more cogent when therapists and wilderness guides point out the personal and interpersonal cause and effect dynamics of the clients' experiences to their lives back home.

There is strong evidence that social skill deficiencies are related to disruptive and antisocial behavior, which limits abilities to form close personal relationships (Mathur & Rutherford, 1994). Thus, delinquent behavior may be partly a manifestation of social skill deficits which can be changed by teaching appropriate social behaviors. Outdoor behavioral healthcare takes place in very intense social units (usually six clients and three leaders) with wilder-

OBH treatment is guided by three phases which specifically address adolescents' unique treatment needs.

OBH provides an environment for hands-on learning of personal and social responsibility.

ness living conditions making cooperation and communication essential for safety and comfort. Proper ways to manage anger, share emotions, and process interpersonal issues within the group are modeled and practiced on a daily basis in a neutral and safe environment. **Thus, OBH provides an environment for hands-on learning of personal and social responsibility,** with modeling and practice of appropriate social skills and cooperative behaviors, all reinforced by logical and natural consequences from wilderness conditions.

3. Transition and Aftercare Phase

The final weeks of the process involves the clients preparing to return to the environments from which they came or to move on to an alternative aftercare setting. Staff are working with them to process what they have learned and how to take these lessons home with them. Upon completion of an OBH program, clients must practice their newly learned self care and personal and social responsibility skills in either home or more structured aftercare placements. Preparation for this challenge is facilitated by therapists through intense one-on-one counseling and group sessions with peers. If a goal for a client was to communicate better with parents, the therapist helps develop strategies to accomplish this goal. If abstaining from drugs and alcohol is a goal, then the therapist will work with the client to develop a behavior contract and strategy with clear expectations including regular outpatient counseling sessions and weekly visits to Alcoholic Anonymous (AA) meetings.

OBH Clients

Among the two types of OBH programs, private placement and adjudicated, a key distinguishing characteristic is the types of clients served.

Typical clients in OBH private placement programs are male Caucasians (83% male and 17% female), aged 13-17, from middle class to upper income families (Russell & Hendee, 2000). These adolescents have not violated the law to such a degree as to be placed in the care of juvenile authorities, nor are their emotional problems severe enough to qualify for hospital treatment. Their commonalties include failing in school or dropping out, serious drug and alcohol abuse and addiction, destructive sexual promiscuity, running away, defiance of parental and community authority, and a resistance to outpatient and community mental health programs that may help them (Cooley, 1998; Russell, 1999; Ferguson, 1999).

Typical clients in adjudicated programs are adolescent males with a history of illegal behavior and substance abuse and they often come from single-parent low income households, and exhibit many of the same behavioral characteristics as clients in private placement programs (Castellano & Soderstrom, 1992). Adjudicated clients are often considered as being at higher risk of recidivism and relapse from treatment, given the severity of their social histories. But more study is needed to confirm and clarify this generalization.

A distinguishing characteristic between private placement and adjudicated OBH programs is the type of client served.

Common Practice in Outdoor Behavioral Healthcare

Outdoor behavioral healthcare practices are implemented by the treatment team defined earlier. The role of the treatment team varies with the three phases of treatment presented earlier: 1) **cleansing and assessment phase**, 2) **personal and social responsibility phase**, and 3) **transition and aftercare phase**.

Following is a discussion of the role of the treatment team in these three phases of treatment. These phases and the descriptions that follow represent a generalized “typical” OBH program, and individual programs may vary. Definitions and key ideas relating to the counseling process are drawn from the work of Waehler and Lenox (1994) and their review of phases in the development of a concurrent model of therapy and counseling.

1. Role of the Treatment Team: Cleansing and Assessment Phase

In the cleansing and assessment phase of the OBH process, the treatment team is assessing the client’s behavior and developing an individual treatment plan based on the client’s social history, usually from a questionnaire completed by the client’s parents, allowing all staff to become familiar with the presenting issues of each client. In many ways the treatment group represents a family unit (leaders are parents, and clients are children and siblings); therefore, many of the client’s behaviors and coping strategies in the home environment are clearly exhibited in wilderness and group living. The treatment team are thus able to assess the client behaviorally in this phase of the program by observing his/her coping skills in a variety of day-to-day living situations and to share this information with the clinical staff. In this manner, the client’s presenting issues are assessed and/or diagnosed, and an individual treatment plan is developed.

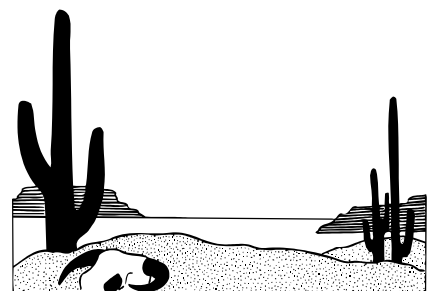
Wilderness leaders and clinical staff strive to establish trust and rapport with the client in the cleansing and assessment phase. By being empathetic and compassionate, over time they are able to establish a rapport with the client that typically goes much deeper than conventional therapeutic relationships. This accepting, caring and nurturing approach is facilitated by allowing natural consequences to teach the initial lessons of the process, thus freeing leaders from traditional authoritative roles. Staff let clients struggle initially, allowing them to work through issues of self-care and responsibility on their own, i.e. carrying gear, setting up a shelter, and demonstrating cooperation in accomplishing group tasks. The balancing act of challenging the clients by letting them struggle, and also being empathetic to their situation, is tenuous. However, when a balance between challenge and empathy is accomplished, clients are not able to direct their anger towards staff, which enables staff to develop a unique rapport and build trust with clients.

A combination of therapeutic tools and activities are applied to draw out behaviors and emotions and break down the resistance and anger of the client. First and most prominent is the use of *hiking* in wilderness environments. This *physical exercise* tires the client and the hard work and mental strain of long days on the trail keep clients’ emotions on the surface and accessible to

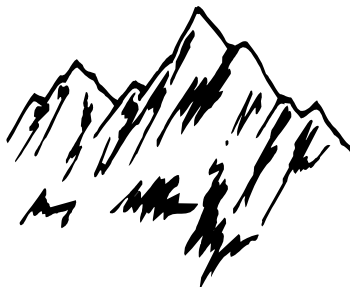


Picture courtesy of Aspen Health Services

Through empathy and compassion, the treatment team works to establish rapport with the client that typically goes much deeper than conventional therapeutic relationships.



Outdoor behavioral healthcare offers the unique opportunity to try an intervention and then assess the effects of the intervention through observation of subsequent behavior and effect on the client.



staff who are observing their coping strategies. The adversity and challenge of hiking is combined with *basic wilderness living skills* which teach self-care and responsibility by utilizing natural consequences. Clients are also asked to learn and apply a variety of wilderness living skills, such as the use of minimum gear (makeshift roll-up packs and tarps) and primitive skills, often bow drill fire-making. The need for clients to learn and apply primitive skills in order to be comfortable (warm and dry) or to earn privileges (such as participating in certain group activities) is facilitated by natural consequences which allows the treatment team to step back and let the wilderness be the teacher.

2. Role of the Treatment Team: Personal and Social Responsibility Phase

In the personal and social responsibility phase, the treatment team continues the balancing act between challenging, caring for and nurturing the clients, while at the same time challenging clients to look more closely at their coping strategies. Each client has an *individual treatment plan* to guide the primary care, carried out by wilderness leaders on a daily basis and by clinical therapists either with the group, or during periodic weekly visits to the field.

Outdoor behavioral healthcare offers the unique opportunity to try an intervention and then assess the effects of the intervention through observation of subsequent behavior and effect on the client. For example, if a client is having trouble expressing himself, the therapist might suggest to the client that he share how he is feeling in a *group session* that night. Wilderness leaders observe the response and interaction in the group session and relay the observations to the therapist. In few other therapeutic environments this dynamic is possible; in outpatient treatment interventions, the counselor will give the client “homework” or a task, and then that task is discussed the next week based on self-reports by the client. In OBH, the wilderness therapist hears the client’s observations of a given intervention as well as observations of wilderness leaders—this unique dynamic allows the treatment team to try various approaches and tools to identify what might work for the client and to observe the emotional and behavioral reactions to the intervention.

If the client is still showing resistance, staff wait for the client to be ready to engage, not wanting to force the client into change. At the same time, the role of the treatment team is to challenge and *push the client to look inside him/herself* but to not force him/her. The treatment team is looking for strategic interventions that will work for the client, and to apply the intervention at the appropriate time. **The greatest variation across programs is found in these applications, each utilizing a variety of interventions in unique ways but with the same goal of helping the client face past behaviors, and to provide the client with necessary skills and desire to change for the better.**

During this phase the therapeutic interventions become more individualized and sophisticated to meet the client’s specific needs. *Communication skills* and a variety of education curricula are taught, such as natural history and first aid. Short stories with *metaphorical messages* are told, with all lessons designed to provide clients with tools to enhance appropriate *interpersonal*

skills. Clients are asked to keep a workbook (separate from a journal) to catalogue what they are learning, with staff checking assignments and helping the client move through the various workbook phases. *Group therapy* and group living in the wilderness provides opportunities to implement and practice these new skills. Group sessions provide an environment in which clients can bring up issues for peer feedback, practice social skills and insights developed with the wilderness therapist, and/or work out issues in the group that are used metaphorically to relate to the clients' home and/or peer environments.

Clients also *write and receive letters from their parents or family members* during this phase. Parents or the custodial authority write an "impact letter" that communicates to the clients' the repercussions of their past actions and how their behavior has effected the family. The letters are often difficult for the clients to accept and process and require the help of staff or peers in individual or group therapy. This tool pushes the client to understand the consequences of his/her actions and start the process of remorse, forgiving, and healing for both parents and clients. Clients are also asked to write letters to their parents describing past wrongs, and apologizing for what they have done. The letters are an important tool to begin healing families which have been torn apart by the client's past behaviors.

Alone time in solos is a powerful tool used in this phase to balance the intense interpersonal learning which is taking place with the opportunity for deep personal introspection. Clients typically spend one to three nights on solo, completing journal assignments and curriculum tasks, reading a story with a hidden educational metaphor, and reflecting on their lives. These times alone are an integral part of the OBH process, and reflect *rites of passage* and transition practiced in indigenous cultures throughout the world (Van Gennep, 1960; Foster and Little, 1980). Upon completing the solo, the group is reconvened, and the solo experiences are processed with the group. Some dislike the solo and some love it, each gaining from the experience what is needed. These solos are perhaps the only time in an adolescent's life when an extended period of time is spent alone. The reflections and personal insight captured in *journal writing* and through communication with therapists are used to help clients' better understand their history of problem behaviors and the future they desire to create.

3. Role of the Treatment Team: Transition and Aftercare Phase

The longer residential expedition and base camp expedition programs are often viewed as a stand-alone intervention, while the shorter continuous flow and contained expedition programs are often used as an opportunity for brief, intensive intervention and assessment of client needs. Both interventions, however, view the therapeutic process as on-going, with the likelihood of recidivism greatly reduced with appropriate follow-up procedures. *Transition and aftercare are critical to maintain therapeutic progress and minimize the likelihood of relapse*. As the OBH process concludes, the role of the treatment team is to prepare clients for transition to home or aftercare placements, and to help them understand and internalize what it is they have



The treatment team helps the adolescent client write and process letters written to and received from parents.

The treatment team assesses the post-program needs of each client, recommending to parents or family what they believe are the most appropriate aftercare strategies or placements.

learned from the experience. The goal is to confirm the lessons learned in OBH and apply them in transition as smoothly as possible to ensure that therapeutic progress is continued. Regardless of what aftercare treatment is planned, preparation is needed for a transition that will include: continued talking about their issues with a parent, authority figure or therapist; participation in a recovery group such as Alcoholics Anonymous (AA); living in a foster home or halfway house; enrolling in an emotional growth school; or being admitted to a long-term psychiatric or substance abuse facility.

For clients with drug and alcohol issues, transition means *talking about what it will mean to lead a sober life* and preparing a *relapse prevention plan*. For clients with family problems, it will mean careful communication between the therapist and family to ensure that *rules and expectations are set* to create the necessary structure for the client. Most programs have a *graduation ceremony* that parents and family are encouraged to attend, where the lessons of the experience are articulated to family members. The role of the treatment team is to prepare the client to speak of these lessons, reintegrate them into appropriate aftercare environments, and put closure on the experience.

The treatment team at each program also plays a critical role in assessing the post-program needs of each client, recommending to parents or family what they believe are the most appropriate aftercare strategies or placements. Parents, families, or community receiving units obviously are not required to follow these aftercare recommendations, but in most instances, they heed the advice of the treatment team, even though the decision may mean sending their children to a follow-up institution and not having them return home. On occasion, the treatment team's advice is not taken, and, for example, the client may go home against the advice of the clinical staff. If this is the case, each program works to establish the necessary structure needed in the home or aftercare environment to continue therapeutic progress. If the client goes on to an aftercare facility, the treatment team establishes a line of communication with the counselor or therapist at the facility to convey their assessments of the client's problem behaviors and progress.

In this phase of OBH treatment, clients are finishing up educational curricula and skills check sheets, coming to an acceptance of their aftercare placement, and preparing for the graduation ceremony. They are also asked by staff to apply leadership skills and be positive role models for other clients in the group. Tools applied in this phase include *asking clients to process what it is they have learned, and to plan for their post-experience aftercare and transition*. Wherever they are going, they are actively working with a therapist and family members or custodial authorities to establish a behavioral contract which will guide the first few months of their transition. These contracts, which will be signed and agreed upon by the client prior to transition, will contain curfews, agreements to see counselors, relapse plans and repercussions, and family and social dynamic scenarios. Whatever the aftercare strategy, clients work to develop a plan

which will help them operate effectively in this environment. Clients are also processing what they have learned and writing specific goals to accomplish. *Articulating these goals and lessons* is important for clients so they fully understand what they have learned and for parents and receiving units who are eager to understand changes that have been made, and for the transition to be effective. By learning to articulate what it is they have learned, clients move closer to integrating these changes after treatment, and are able to talk about what the experience has taught them.

Graduation is an important celebration in every program and is typically attended by parents, family members and friends. Each program approaches graduation somewhat differently, but all share common themes. It is often an emotional reunion and consists of communicating emotions and feelings with the help of the treatment team. This is also a time when the clients express remorse for past behavior, talk of things learned and new goals established. It is a time of relief for the parents and family, joy for the clients, and is recognized as an opportunity for clients to begin anew.

Role of Parents, Family or External Authority in OBH Process

The role of parents and family members of OBH participants is consistent throughout the process. Once the client is enrolled, both private placement and adjudicated programs work to actively involve the parents, family and/or custodial authorities in treatment, and to provide feedback on the progress of the client. Because of the variety of communication with parents, family, and external authorities of the client while they are in treatment, here they are all referred to collectively as “the family.” The goal of communication with the family is to prepare the necessary follow-up services and appropriate aftercare environment so the client can implement necessary changes in their lives.

The role of the family often begins with the first phone call to the program, and proceeds with continued communication with the clinical staff responsible for their child months after the program is complete. The anxiety felt by parents in the first phone call to a program is captured in this quote by an admissions director at a private placement program (Russell, 1999).

They’ve tried counselors, and then they reach the point where the kid says, “No I’m not going to go,” and doesn’t show up. And then you get the parents who say, “I don’t know what to do, physically, I can’t—I am just afraid of him. What do I do?” They are feeling so totally helpless, they try going to the police, try going to various centers, and they can’t get anybody to help them, and they don’t know what to do.

After the first phone call is made, parents are sent an application packet that contains social history questionnaires and requests basic information about the client. If the parents are not invested in the process, staff believe treatment will not be as effective. Because of this, parents are encouraged to take an active role in the intervention, and in many cases this means committing to some type of counseling themselves while their child is in treatment. With adjudicated programs, after the client has been placed in

Picture courtesy of Anasazi



The role of the family often begins with the first phone call to the program, and proceeds with continued communication with the clinical staff responsible for their child months after the program is complete.

Expected OBH outcomes are development of self-concept, an awareness of the impacts of past behaviors, learned knowledge and skills, including group living and social skills, and strengthened family or community relations.

the program an effort is made by staff to contact the family and begin dialogue about treatment progress and to ask the family to be involved in treatment as much as possible.

The family communicates weekly with clinical staff responsible for the care of their child. In these "telephone therapy" sessions, clinical staff may communicate how the client is doing, talk with parents about specific family dynamics, or suggest readings for parents. The family writes, receives and processes letters to clients with the help of clinical staff to initiate the healing process, and reopen lines of communication shut down by anger and resentment of the client, and the anxiety and guilt of the family. Most programs recommend or provide books on parenting, conduct seminars on parenting skills, hold weekend retreats with clients and family members, all of which are designed to encourage open communication in the family. Upon completion of the OBH program, parents are encouraged to attend and actively participate in graduation ceremonies.

Expected Outcomes in Outdoor Behavioral Healthcare

Because adolescent clients enter outdoor behavioral healthcare treatment with varied social histories and different needs, expected outcomes vary in degree and intensity. Outcomes are presented in classifications which were developed from reviews of pertinent literature and case studies of OBH process and outcomes (Russell, 1999), and on-going outcome assessment (Russell & Hendee, 2000). Benefits reported from studies of participation in wilderness experience programs support the hypothesis that outdoor behavioral healthcare programs enhance self-concept by developing self efficacy and strengthening internal locus of control among participants (Ewert, 1987, 1989; Friese et al., 1995; Levitt, 1988; Pitstick, 1995; Winterdyk & Griffiths, 1984; White & Hendee, 2000). Based on these reviews of literature, expected outcomes from OBH treatment are classified as: **1) development of self-concept, 2) enhanced awareness of the impacts of past behaviors, 3) learned knowledge and skills, including group living and social skills, and 4) a strengthening of family or community relations.** Each of these are briefly reviewed.

1. Development of Self-Concept

Outdoor behavioral healthcare provides an outdoor experience for clients which results in a **tangible sense of accomplishment from which strength can be drawn in the future.** Physical health and conditioning is important, leading to a sense of well-being, which helps clients feel better about themselves through enhanced self esteem, all of which help provide the first steps toward personal growth. OBH programs view personal growth as a never-ending journey that lasts a lifetime. The process teaches clients how to access and express their emotions, and that talking about feelings is important. Clients feel a sense of empowerment and resiliency, believing that if they completed a challenging OBH program, they can also complete other formidable tasks. Clients leave knowing that they have just begun their journey and need to continue their personal growth process.

2. Knowledge and Skills Gained

Development of the self is enhanced by learning a multitude of personal and interpersonal skills, such as **communication skills, drug and alcohol awareness, and coping skills**. These skills help clients make better choices and, when combined with the enhanced sense of self, help clients avoid negative peer and cultural influences. Clients with drug and alcohol issues complete the first steps of the 12-Step model of addiction recovery and have begun the process of breaking the cycle of addictions and dependence. Being realistic about client relapse, parents work directly with clinical supervisors during the OBH process to help develop a relapse prevention plan to insure that the necessary support and structure is there if and when a relapse occurs. Clients have also learned to understand the consequences of their actions.

3. Enhanced Awareness of Personal and Interpersonal Behavior

Outdoor behavioral healthcare helps clients **understand behavioral changes they need and want to make**. Their awareness of past behavior, and proposed changes, are voiced to parents during graduation ceremonies and post-treatment meetings and serve as a guide for parents and custodial authorities, staff, and follow-up institutions to help the client maintain and realize these changes. The main realizations clients develop from the experience are the need and desire to change past behaviors, that they are being given an opportunity for a fresh start and they must want to continue to grow. They are more appreciative of the things they have in life, such as loving and caring parents or good community systems, and have learned to see other perspectives, especially those of parents and authority. Clients express a desire to reconcile and strengthen relationships with family, custodial authorities, and appropriate peers. They also have a different perspective of their past problem behaviors, realizing that often their behaviors were symptoms of other issues occurring in their lives.

4. Strengthened Family Relations

Programs will often not take an adolescent client unless the parents or custodial authorities are committed to and take an active role in the process. This idea frames a **primary goal of OBH—a better functioning family and/or community system from which the client comes from and to which they will eventually return**. Parents participate in seminars that teach parenting skills and skills to facilitate better family functioning. Clinical staff work very hard with families throughout the process to insure that they understand their role in the clients problem behaviors, and will work on establishing a structure in the home to help clients continue the personal growth that has begun. **Bringing a family back together that has been torn apart by the client's problem behaviors, and reintegrating family structure around the client's and parent's needs, are key outcomes of the intervention**. Staff emphasize that a window of opportunity has opened for the client and family to bring about change, and work very hard with families to take advantage of that window.

A primary goal in OBH is a better functioning family and/or community system from which the client comes and to which they will eventually return.

Picture courtesy of Catherine Freer



Thus, the expected outcomes from treatment in an outdoor behavioral healthcare programs include: **enhanced self-concept** and a **sense of accomplishment**; **knowledge and skills**, an **awareness of personal behavior** including **drug and alcohol issues**, **communication and healthier coping skills**, an **understanding of the consequences of their behavior**; and, a **desire to strengthen relationships with parents and family**. The cumulative effect of these outcomes **ultimately leads to behavior changes in the family, peer, school, and work environments from which they came**.

History and Evolution of Outdoor Behavioral Healthcare

We identify seven key theoretical and practical influences from which the theoretical and applied foundations for outdoor behavioral healthcare have evolved. They are: 1) early therapeutic camping approaches developed in the mid 1900s; 2) wilderness challenge and rites of passage models , including Outward Bound approaches adopted in the 1960s; 3) primitive skill programs developed by Larry Dean Olsen and others in the late 1960s; 4) adjudicated outdoor programs for juvenile delinquents as an alternative to traditional incarceration, 5) professionalism, such as the development of the Therapeutic Adventure Professional Group (TAPG) under the auspices of the Association for Experiential Education (AEE), 6) an emerging recognition by insurance companies, and state agencies; and, 7) scholarly influences, including such research as Kaplan and Kaplan (1989) and their theory of wilderness as a restorative environment. These seven influences are described in the following and summarized in Figure 1.

Influence 1. Early Therapeutic Camping Approaches

An initial, major theoretical influence in OBH can be traced to early programs which took a “therapeutic” approach to camping in the outdoors. Camp Ahmek, founded in 1929, and the Dallas Salesmanship Club, founded in 1946 by Campbell Loughmiller formed the foundation upon which many contemporary OBH programs were built. Camp Ahmek was one of the first therapeutic camping programs and was founded with two major goals: (1) recuperate participants; and (2) socialize the camper’s behavior (Davis-Berman & Berman, 1994b). This was the first time that a camp had established “socialization” as a goal and made reference to the importance of the group setting—by living and functioning in small groups the desired behaviors would become socialized into the campers.

Camp Ahmek helped lead to the creation of later programs such as the Dallas Salesmanship Club, founded by Campbell Loughmiller in 1946. Loughmiller believed that the outdoors contained real threats and natural consequences that helped teach campers personal and social responsibility. He believed these lessons would impart a sense of control to the campers, which would help them transfer changes made in the camp environment to their everyday lives (Loughmiller, 1965).

Modern OBH evolved from several theoretical and practical influences, seven of which are outlined here.

Influence 2. Wilderness Challenge and Rites-of-Passage Models

A second major influence on the theoretical development of OBH emerged when Outward Bound, founded in England by the innovative German educator Kurt Hahn, arrived in the U.S. in the 1960s. The Outward Bound model differed from the early therapeutic camping approaches in that the program was based on a challenging expedition model of travel in wilderness. This wilderness challenge model involved pushing participants to overcome self-perceived limitations. The “Hahnian” approach to education “was not only experience-centered, it was also value-centered. Learning through doing was not developed to facilitate primarily the mastery of academic content or intellectual skills; rather, it was oriented toward the development of character and maturity” (Kimball & Bacon, 1993, p. 13). Stephen Bacon’s *The Conscious Use of Metaphor* (1983) provided a framework to weave metaphors into the wilderness experience to help participants relate lessons learned from Outward Bound to their everyday lives. The publication of this text had an important impact on wilderness program theory and practice, and to this day it remains a classic text for using metaphor to enhance learning for participants.

Solos are used by many OBH programs, and were made well known through adoption and use by Outward Bound and other wilderness challenge programs. Other programs and processes, such as the contemporary vision quest model developed in the late 70s and continually refined by Foster and Little, focus entire programs for adolescents and adults on solo-fasts in a rites-of-passage model (Foster & Little, 1980; Foster, 1995). Leaving everything behind for time alone in reflection on one’s life has its roots in many indigenous cultures and reflects an ancient rites-of-passage practice for adolescents entering into adulthood. Today solos in vision quest and OBH programs serve as a modern day rite of passage for participants, and are a key component of the OBH experience, i.e. leaving parents and family behind to journey into the wilderness for time alone, to reflect on their lives and begin anew.

In addition to the Outward Bound and rites of passage models, and often integrating their methods, were a variety of wilderness experience programs (WEPs) that utilize the wilderness as a teacher or classroom in seeking personal growth for their participants (Friese et al., 1998). These programs number in the hundreds and include educational programs like National Outdoor Leadership School and the Teton Science School, and adventure education programs, like Project Adventure.

Influence 3. Primitive Skill Programs

In the late 1960s, Larry Dean Olsen, Doug Nelson, and others began developing primitive skill desert survival courses, sponsored by the Department of Youth Leadership at Brigham Young University in Provo, Utah. As the classes gained popularity, Olsen began to notice that participants felt better about themselves after learning these skills (Olsen, 1997). This increased self-esteem led to a belief that a program like Olsen’s could benefit students



Picture courtesy of Aspen Health Services

Success of the wilderness challenge model, pushing participants beyond their self-imposed limitations, has influenced the development of OBH.



Picture courtesy of Anasazi Foundation

whose academic careers were at risk because they performed poorly in their freshman year of university classes. The first program was run in 1969 with 30 students, one of whom was Ezekiel Sanchez, who would go on to be a lifelong friend and colleague of Olsen. The students were dropped off in the desert with very little food and water and had 26-days to hike to a predetermined destination (Olsen & Sanchez, 1999).

The program was deemed a success, with supporting evidence from tracking the students through the duration of their college experience. There was also a change in the way the students approached issues in their lives, with new enthusiasm and confidence that was lacking in their freshman year. Olsen, Sanchez, and Doug Nelson went on to further develop the youth leadership program at B.Y.U. in 1969, also applying primitive skills as a tool for troubled adolescents not being reached by traditional forms of rehabilitation. Since then, Olsen and Sanchez helped design and implement a number of outdoor behavioral healthcare programs that utilize primitive skills and are still active today, including SUWS and the Aspen Achievement Academy. In 1988 they founded the Anasazi Foundation OBH program which is still in operation today under their leadership (Olsen & Sanchez, 1999).

Influence 4. Adjudicated Programs

Adjudicated OBH programs were identified three decades ago as an alternative to traditional incarceration for juvenile offenders. They continue in that role today, but are far fewer in number than private placement outdoor behavioral healthcare programs (Davis-Berman & Berman, 1994b). Many adjudicated programs, such as the one operated by Alternative Youth Adventures (AYA) in Loa, Utah, often resemble therapeutic camping (base camp with overnight outings), and are usually longer, requiring commitments from participants of at least a year. Adjudicated programs demonstrate how traditional social services for adolescents can be applied in wilderness and outdoor environments to invigorate common practices. Larry Wells, who now operates Wilderness Quest in Utah, was working in corrections in the late 1960s and early 1970s and saw a need to offer adolescents an alternative to incarceration. He began developing a program for adjudicated youth and is considered by many to be one of the early originators of wilderness treatment programs.

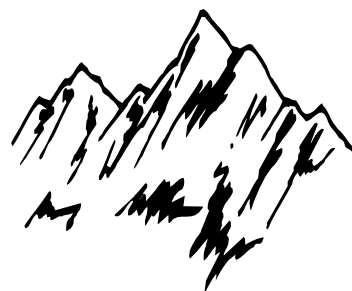
Adjudicated programs usually take a more direct, control-oriented and structured approach to working with adjudicated youth, drawing both praise and criticism. The sternest programs often earn the label “boot camp” because of their adherence to strict disciplinary procedures. There is a belief that adjudicated programs are an effective alternative to traditional incarceration for certain adolescents, although outcome studies of recidivism and post-program adjustment are few. It is important to note that although a strict and disciplinary approach is acknowledged by some as necessary and effective for many adjudicated youth (Castelano and Soderstrom, 1992), the approach is much different than the approach used by most private placement OBH programs.

A program called VisionQuest was founded in Tucson Arizona in 1973 by disgruntled corrections workers who were frustrated by the lack of innovative programming available for juvenile delinquents. Considered to be one of the first adjudicated programs, VisionQuest followed a “step program,” in which participants enter into an early phase of the program and work their way through the subsequent phases. Another well-known program is the Santa Fe Mountain Center, which, unlike most adjudicated programs, operates within the criminal justice system in New Mexico rather than as an alternative to incarceration (Kimball, 1983). Similar to other OBH programs, the wilderness component of adjudicated programs serves as a supplement to on-going treatment and rehabilitation services the delinquent is receiving.

Influence 5. Professionalism: AEE, TAPG, and OBHIC

The Therapeutic Adventure Professional Group (TAPG) is a special interest group of the Association of Experiential Education (AEE) committed to enhancing the development of adventure-based programming and the principles of experiential education in therapeutic settings. Professionals in the field of health, mental health, corrections, education, and other human service fields formed TAPG in the 1970s to share information, techniques, and concerns regarding the therapeutic use of adventure-based education. The text *Adventure Therapy: Therapeutic Applications of Adventure Programming* (edited by Michael Gass, 1993) constituted a comprehensive effort by TAPG to clarify what was meant by “adventure therapy.” The principles articulated in this text for the use of adventure experiences as therapeutic process reflect prior research and literature in this field, and provide key theoretical elements for the development of outdoor behavioral healthcare and other wilderness programs.

Key principles include: 1) the use of action-centered therapy, which turns passive therapeutic analysis and interaction into active and multidimensional experiences; 2) the use of an unfamiliar environment to overcome client’s inherent resistance to treatment and change; 3) the healthy use of stress to stimulate positive problem solving abilities (e.g., trust, cooperation, clear and healthy communication) to reach desired outcomes and goals; 4) the assessment of clients in real contexts as they “project” their behavior patterns, personalities, structure, and interpretation onto the adventure activities; 5) small group development and socialization as clients struggle with conflicting individual and group needs; 6) a focus on successful rather than dysfunctional behaviors through clients meeting a series of goals and expectations that are designed to be realistic; and 7) changes in the role and perception of the therapist, to one perceived as approachable in that they are often engaged in the same activities as the client (from Gass, 1993, p. 7-9). Finally, the Journal of Experiential Education (JEE) established by the TAPG provided an outlet for research on program design, implementation, practice and evaluation in a peer-reviewed format. The formation and development of the TAPG, the JEE, and their focus on research and the establishment of ethical guidelines in practice, strengthened the credibility of outdoor treatment within the mental and behavioral healthcare professions.



The Outdoor Behavioral Healthcare Industry Council (OBHIC) was formed in 1996 as a coalition of OBH programs to work for higher standards in outdoor treatment programs.

The Outdoor Behavioral Healthcare Industry Council (OBHIC) was formed in 1996 as a coalition of OBH programs to work for higher standards in wilderness and outdoor treatment programs. Meeting quarterly, they expand cooperation through open dialogue about methods, process, equipment, staff training and qualifications, public relations, safety, and land use ethics (see OBHIC 2000). In 1999 they formed the Outdoor Behavioral Healthcare Research Cooperative at the University of Idaho to help fund research important to the industry (Hendee, 1999). Current research efforts include a study of the size and parameters of the more than 100 identified OBH programs in order to better understand the organizational characteristics of the industry; rigorous outcome studies of established OBH programs to determine the treatment effectiveness of OBH across all four program models, and; studies of risk and the relative safety of OBH as an intervention and treatment compared with other wilderness programs, and adolescent activities such as high school sports (Cooley, 2000).

Influence 6. Recognition by Insurance Companies and State Agencies

As programs began to establish themselves in Utah and Arizona in the late 1980s, a sixth major influence emerged. OBH programs realized that with recognition from insurance companies, more families would be able to afford OBH intervention and treatment. The Anasazi Foundation program founders, Larry Olsen and Ezekiel Sanchez, approached a number of insurance companies in Arizona in 1988 and were told that if they could meet state requirements for adolescent residential treatment they would recognize OBH. Adjudicated programs like VisionQuest, established in 1973, had prompted the State of Arizona to develop standards for OBH programs under the category of Mobile Program Agency Standards (personal communication, Mike Merchant, Anasazi, June 1, 2000). These standards had an important impact on program design and process at The Anasazi Foundation, and were also a guide for other programs in forming agreements with insurance companies and social service agencies in seeking co-payment for client treatment in OBH programs.

Later in 1988, Utah contracted with Olsen and Sanchez and, utilizing the "Mobile Program Agency Standards," developed new standards for which programs operating in Utah would comply. These standards became the criteria that many insurance companies subsequently used for OBH programs. The Anasazi Foundation integrated these requirements into their therapeutic, educational, and medical health model of treatment, and this combined curricula has provided a standard for other OBH programs to use in seeking co-payments for clients from insurance companies and other mental health providers. Standards included: developing an individual treatment plan for each client, supervised by professional clinical staff; regular medical checkups by medical staff; appropriate backup procedures while in wilderness (radio and cell phone contact); and, a required number of calories per day for each client. The emerging recognition by insurance companies and state agencies, and the growing third party co-payment from insurance companies, distinguishes OBH from other wilderness experience programs and is an important influence in the evolution of OBH.

Influence 7. Scholarly Influences

Many scholarly inquiries, books and articles over the past two decades have described, explored and tested the process and effects of outdoor behavioral healthcare programs. Collectively they helped define and shape the evolution of outdoor behavioral healthcare. Following is a review of some key, relevant works related to OBH. We acknowledge that this is not a complete list, and we have surely omitted authors who are also deserving of recognition for their contributions to OBH. Other texts not reviewed here, but which have provided important contributions to OBH include: Bacon, *The Conscious Use of Metaphor* (1983); Cole, Erdman, and Rothblum, *Wilderness Therapy for Women: The Power of Adventure* (1994); Ewert, *Outdoor Adventure Pursuits: Foundations, Models, and Theories* (1989); Luckner and Nadler, *Processing the Experience* (1997); Miner and Boldt, *Outward Bound U.S.A.* (1981); Miles and Priest, *Adventure Education* (1990); Petzoldt, *The Wilderness Handbook* (1974); and Priest and Gass, *Effective Leadership in Adventure Programming* (1997).

Kaplan and Kaplan

Seminal work on the psychological benefits of experiencing nature was done by Rachel and Stephen Kaplan (1989) and led to the construct of “nature as a restorative environment.” When speaking of restorative, a presupposition is made that there is something to be restored and an affliction to be overcome. Kaplan and Kaplan termed this *mental fatigue*, prompting the question: How do natural environments help one recover from mental fatigue? That is, how are natural environments restorative for people worn out and ready for a break from excessive demands for direct attention?

Two constructs developed by Kaplan and Kaplan (1989) address this question. The first is defined as *being away*. Distancing ourselves from our work and our stress, and thus mental fatigue, allows our heads to clear and recover from too much direct attention. This finding parallels other work of wilderness-based researchers who found that natural areas were being used for escape from urban environments (Driver & Tocher, 1970). The second therapeutic wilderness construct by Kaplan and Kaplan is the notion of *soft fascination*. This occurs when involuntary attention is engaged but demands for direct attention are diminished, thus making restoration possible. Thus, a key aspect of restorative settings is their potential for eliciting soft fascination. Clouds, sunsets, and flowing rivers engage attention but do not require direct attention, thus allowing room for cognitive reflection. Hartig et al. (1987) tested this theory and offered strong support for the claim that natural settings are restorative, in part, because they facilitate recovery from mental fatigue. The study compared two groups in which the group that took a wilderness vacation (sight-seeing, car tours) was not as restored as the group that took a wilderness trip (backpacking trip). Thus, Hartig et al. (1987) concluded that just *being away* was not sufficient in and of itself to produce restorative effects; because the groups directly engaging nature experienced more restoration.

Distancing ourselves from our work and our stress, and thus mental fatigue, allows our heads to clear and recover from too much direct attention.



Davis-Berman and Berman were the first to compile earlier research findings in a comprehensive Wilderness Therapy text, thereby increasing the exposure and enhancing the legitimacy of wilderness treatment programs.

Davis-Berman and Berman

Davis-Berman and Berman (1994b) in their text *Wilderness Therapy: Foundations, Theory and Research*, integrated the ideas of Campbell Loughmiller and therapeutic camping with those of the Outward Bound model of wilderness challenge. Several researchers, including Kelly and Baer (1968), Golins (1978), Kimball (1979) and Bendoroff (1989), developed key ideas through earlier research and writing, but, Davis-Berman and Berman were the first to compile these findings in a comprehensive text, thereby increasing the exposure and enhancing the legitimacy of wilderness therapy. Davis-Berman and Berman define wilderness therapy, as the “use of traditional therapy techniques, especially for group therapy, in an out-of-doors setting, utilizing outdoor adventure pursuits and other activities to enhance personal growth” (Davis-Berman & Berman, 1994b, p. 13). The intervention is a methodical, planned and systematic approach to working with troubled youth. They go on to say:

We want to emphasize that wilderness therapy is not taking troubled adolescents into the woods so that they feel better. It involves the careful selection of potential candidates based on a clinical assessment and the creation of an individual treatment plan for each participant. Involvement in outdoor adventure pursuits should occur under the direction of skilled leaders, with activities aimed at creating changes in targeted behaviors. The provision of group psychotherapy by qualified professionals, with an evaluation of individuals’ progress, are critical components of the program (Davis-Berman & Berman, 1994b, p. 140).

The authors speak in practical terms regarding the design of wilderness therapy programs, stating that staff need not be certified as counselors because “this goal is both unrealistic and unnecessary” (p. 141). They do, however, believe that clinical supervisors of these programs should be trained and licensed in accordance with state statutes and national standards. Programs should also delineate staff who are responsible for the wilderness and physical components of OBH from those coordinating the counseling components. They do not suggest a specific therapeutic approach to program design, but provide a broad framework for accurately assessing the client’s problems through an individual treatment plan, as well as guidelines for appropriate program evaluation and design. Thus, Davis-Berman and Berman used a definition of wilderness therapy which is very similar to the definition of outdoor behavioral healthcare defined in this publication, and which calls for individual assessment and treatment plans integrated with traditional wilderness challenge models like Outward Bound.

Bendoroff and Scherer

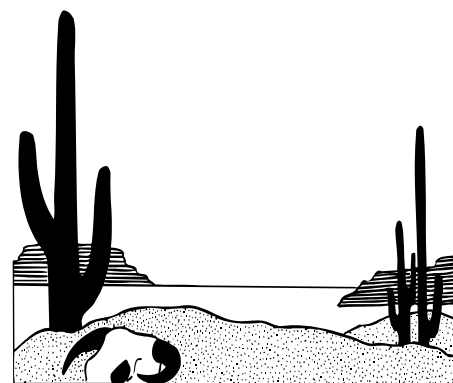
Another model of outdoor behavioral healthcare treatment in the early 1990s was developed by Bendoroff and Scherer (1994) who believe that a comprehensive model for OBH requires theoretical guidance. In developing the Family Wheel program at SUWS, a contained expedition program with a strong family focus, they state “To this end, we have used the fundamentals

of structural family therapy, combined with research on healthy family process, and the tactics employed in multiple family therapy as the primary components of an innovative wilderness family therapy program” (Bandoroff & Scherer, 1994, p. 178). By specifying the therapeutic approach used in designing their program, Bandoroff and Scherer were able to use specific evaluation instruments which were scientifically tested in studies conducted on conventional family therapy. Also, the data generated from their study of families were analyzed within the context of other research on family functioning. This program illustrates the evolution of a therapeutic approach to camping in the outdoors, fused with a wilderness challenge model, and finally incorporating a family therapy component—today all established elements of OBH.

Russell and Hendee

The University of Idaho-Wilderness Research Center (UI-WRC), with supplemental funding from several sources, completed a five-year program of research on *Wilderness Experience Programs for Personal Growth, Therapy, Education, and Leadership Development: Their extent, social-economic and ecological impacts and natural resource policy implications* (Hendee, 2000). Following a formal plan of research, the UI-WRC first searched and annotated the pertinent literature; created and operated three model wilderness experience programs (WEPs) to generate research data and program leadership experience; surveyed the WEP industry to determine its extent, characteristics, and dynamics; surveyed wilderness managers’ attitudes and policies toward WEPs; established a new student orientation program with a wilderness experience (IN IDAHO); studied the links between wilderness characteristics and WEP benefits and outcomes; and examined the social and economic benefits of a WEP for socially and economically disadvantaged youth in the Federal Job Corps (reports and publications available at www.its.uidaho.edu/wrc/research). Collectively, these studies documented the substantial and diverse use of wilderness for personal growth and healing by a growing industry of commercial and non-profit organizations, an important segment of which focused on at-risk youth.

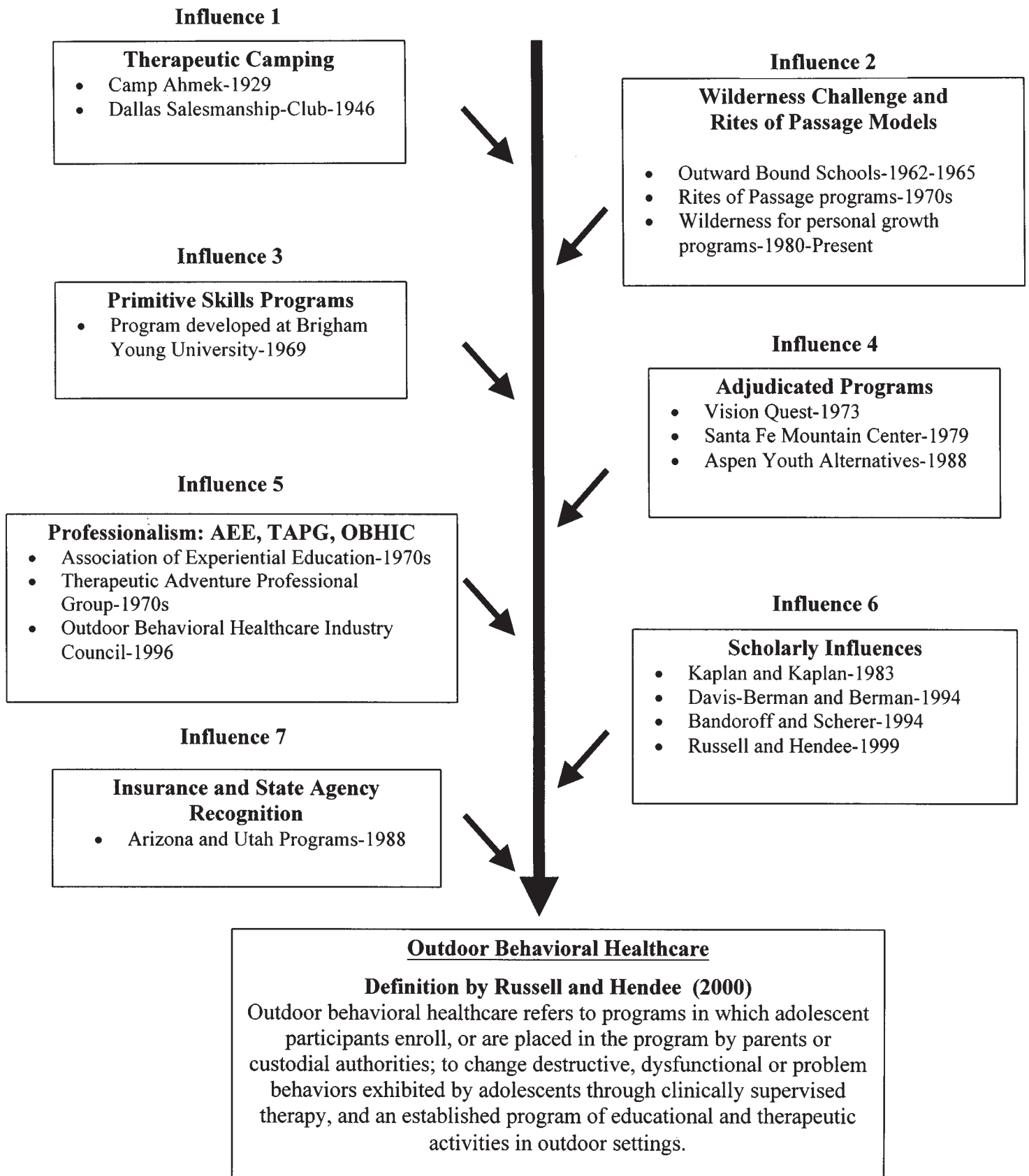
There is substantial and diverse use of wilderness for personal growth and healing by a growing industry of commercial and non-profit organizations, an important segment of which is focused on at-risk youth.



This research effort next led to a major study of the theoretical basis, process and reported outcomes of four established wilderness therapy programs serving adolescents with problem behaviors and addictions (see Russell, 1999; Russell & Hendee, 2000; Russell, Hendee & Phillips-Miller, 2000). The motivation behind the study was to more clearly define the wilderness therapy process and examine how “therapeutic” programs differed from the broader field of wilderness experience programs (WEPs). The findings identified key differences between wilderness experience programs and those that utilize a clinically supervised therapeutic process, and trends in the industry, such as the formation of the Outdoor Behavioral Healthcare Industry Council and the terminology of outdoor behavioral healthcare for such programs to emphasize, emphasizing OBH program’s approach to working with resistant adolescents in outdoor settings (Hendee, 1999a).

This publication, and the survey of OBH programs herein, is the next step in the evolving research on OBH at the University of Idaho-Wilderness Research Center, now organized in an OBH Research Cooperative with financial support from the industry (Hendee 1999b).

Figure 1. Seven historical influences on evolution of outdoor behavioral healthcare.



A major shortcoming of research in the wilderness experience field is the inability to compare studies between programs or setting.

*Evidence from several studies reported in the literature suggest that participants in wilderness programs **gain a heightened sense of self-concept and develop appropriate and adaptive social skills.***

Literature Related to OBH Outcomes

Many studies have reported benefits to participants from wilderness experience. Following is an overview of published literature on the reported effects and outcomes of outdoor behavioral healthcare and related wilderness experience programs on participants. Since the current practice of outdoor behavioral healthcare has evolved over time and been defined in a variety of ways, as described in the foregoing pages, a diverse variety of studies contribute findings to modern OBH. This is a major shortcoming of research in the wilderness experience field—the inability to specifically compare and replicate studies from one program or setting to the next. This in turn makes it difficult to determine what the intervention or treatment was, and difficult to compare treatment effects across multiple studies. Where appropriate in the following review, the definition used by the author of the study is presented and is assumed to be a definition or program model that is relevant to OBH. Despite these limitations, a few consistent findings emerge that can be generalized to OBH, and these studies, along with a consistent and clear definition of OBH, can be an important guide to future research.

Several literature reviews were drawn on in examining outcomes associated with OBH and related programs (Burton, 1981; Cason & Gillis, 1994; Easley, Passineau, & Driver, 1990; Ewert, 1987; Friese, Pittman, & Hendee, 1995; Gibson, 1979; Hattie et al., 1997; Levitt, 1988; Moote & Wadarski, 1997; Pittstick, 1995; Russell, 1999; Winterdyk & Griffiths, 1984). As these prior reviews demonstrate, past studies of wilderness experience program effects tend to focus on two primary effects on participants: 1) enhanced self-concept of participants, and 2) development of appropriate and adaptive social skills. Very few studies have focused on recidivism in criminal behavior. There are also very few studies related to the effects of OBH treatment on substance abuse and dependence, a primary outcome on which current outdoor behavioral healthcare practice is focused (see Russell, 1999).

Studies Related to Effects on Self-Concept

Low self-concept is seen to be associated with the presence and continuation of delinquent behavior, therefore, much of the research has focused on the degree to which wilderness programs enhance the self-concept of participants (Kaplan, 1975). In very broad terms, self-concept is a person's perception of his/herself. These perceptions are formed through experience with the environment, and are influenced by environmental reinforcements and significant others (Shavelson, Hubner, & Stanton, 1976). Evidence from several studies and reported in the literature suggest that participants in wilderness programs **gain a heightened sense of self-concept** .

Specific studies on self-concept note that participation in wilderness experience programs enhances the self-concept of troubled youths (Bandoroff & Scherer, 1994; Gibson, 1981; Hazelworth, 1990; Kelly & Baer, 1969; Kimball, 1979; Kleiber, 1993; Pommier, 1994; Porter, 1975; Weeks, 1985; Wright, 1982). To address the multidimensional aspects of self-concept, Marsh, Richards, and Barnes (1984) assessed several dimensions of self-concept in their study of a 26-day Outward Bound program for nondelinquent youth and documented that self-concept can be changed through effective intervention. They also noted that by identifying multiple dimensions of self-concept, identifiable goals of the intervention can be more directly linked to measures of self-concept (Marsh, 1990).

Other studies also report increases in global measures of **self-esteem** (Cason & Gillis, 1994) and increased self image (Plouffe, 1981). Russell and others (Russell et al., 1998; Russell & Hendee, 1997) found that increases in sense of self, referred to as the “development of self” (DOS), from participation in a wilderness experience program led to increased student performance in the Federal Job Corps program as well as reducing the likelihood they would leave the program early before completing their educational and vocational training. White and Hendee (1999) concluded from an assessment of prior wilderness research that the construct “development of self” (DOS), including self-esteem, locus of control, and variations thereof, are reported in virtually all studies of wilderness experience.

Despite many published studies, systematic reviews of self-concept research emphasize the lack of a theoretical basis in most studies, the poor quality of measurement instruments used to assess self-concept, methodological shortcomings, and a general lack of comparable (consistent) findings (Hattie et al., 1997; Winterdyk & Griffiths, 1984). Two reasons seem to account for the lack of comparability and thus, consistency. First, most studies have used loosely defined measures of self-concept and ignore the multidimensionality of the construct (Marsh et al., 1984; Pitstick, 1995). Second, the size of the likely effect relative to the probable error is typically small, especially when studies use a small number of subjects, which is often the case in most outcome-based research on wilderness experience programs (Priest & Gass, 1997). Future research needs to address these issues to more accurately determine the effects of outdoor behavioral healthcare on participants’ self-concept and other outcomes.

Studies Related to Effects on Social Skills

There is strong evidence that social skill deficiencies are related to disruptive and antisocial behavior and limit abilities to form close interpersonal relationships (Mathur & Rutherford, 1994). Delinquent behavior is often a manifestation of social skill deficits which can be changed by teaching alternate pro-social behaviors. Thus, wilderness programs in general have focused on the development of social skills, and much of the research has focused on to what degree wilderness programs enhance social skills and cooperative behavior of participants.



Research reported in the literature suggests that wilderness and outdoor treatment programs influence the development of more socially adaptive and cooperative behavior.

Gibson (1981) determined that interpersonal competence of participants in an Outward Bound program was increased following the experience. Porter (1975) noted a decrease in defensiveness and a large increase in social acceptance. Kraus (1982) concluded that wilderness therapy aided emotionally disturbed adolescents in reaching various therapeutic goals, including a reduction in aggressiveness. Weeks (1985) noted an improvement in participant interpersonal effectiveness in relating to others through learned social skills.

In a more recent study, Sachs and Miller (1992) reported that a wilderness experience program had a positive effect on cooperative behavior exhibited in the school setting following completion of the wilderness program. This was accomplished through direct observation of behaviors in a school setting. The authors also noted a deterioration of program effects over the long term, suggesting a need for follow-up procedures within post-program settings to help students maintain behaviors they have learned. This “deterioration of effects” is widely suspected but little studied—Winterdyk and Griffiths (1984) also found that evaluations employing follow-up measures with control groups revealed a “fading effect” which begins upon completion of the program.

Russell et al. (1998) defined the social or group development which transpires on a wilderness experience as the “development of community” (DOC), and noted that this was a major reported benefit for participants in a wilderness experience program. White and Hendee (1999) also noted that virtually all studies of wilderness users that address group effects note positive effects on interpersonal or social skill development.

Conclusions drawn from review of the reported effects of wilderness experience programs (related to OBH) on developing appropriate and adaptive social skills suggest that such programs influence the development of more socially adaptive and cooperative behavior. But these positive effects will fade when the program is over and the participants return to their prior lives. This illustrates the critical role that aftercare services play in maintaining the positive effects of OBH programs.

Studies Related to Effects On Substance Abuse

There are few studies reported in the literature on the effects of outdoor behavioral healthcare on clients with histories of drug and alcohol abuse, nor are there many unpublished studies (gray literature). Most OBH programs do not conduct evaluations or assessments of program effectiveness. Carpenter (1998) identified 36 programs, defined as “wilderness therapy programs,” and noted that the predominant form of program evaluation consisted of internal review using qualitative methods, and only two programs noted quantitative methods in their program evaluation. Other researchers have also noted a lack of quantitative evaluation efforts in wilderness and outdoor treatment programs (Bandoroff, 1989; Bennett, Cardone, & Jarczyk, 1998; Hattie et al., 1997).

Three studies report reduced substance abuse from OBH related programs. Gillis and Thomsen (1992), in an unpublished paper noted a positive behavior change and positive effect on relapse from an eight-week residential treatment program for drug-abusing adolescents. Bennet et al. (1998) found that a therapeutic camping program was more effective at reducing the frequency of negative thoughts and reducing alcohol craving when compared with a residential drug and alcohol treatment model. They also noted a clinically important reduction in alcohol use 10 months after the program, with the experimental group reporting 69% abstinence, compared with the control group report of 42% abstinence. Russell (1999), in 12 case studies at four months after completion of OBH programs, found three cases (25%) that self-reported they had relapsed on drugs and alcohol, and which were corroborated with parent interviews, while the other nine (75%) had not relapsed. These three studies report positive results in treatment of drug and alcohol issues, but many more studies are needed.

Studies Related to Effects on Recidivism

A review of the criminology literature reveals only a few published studies on the effects of wilderness programs on adolescent recidivism (return to deviant, delinquent, or criminal behavior). A few studies in the 1970s and 1980s linked wilderness programs to reduced recidivism, reduced frequency of deviant behaviors, and fewer arrests (Winterdyk & Griffiths, 1984). Greenwood and Turner (1987) compared 90 male graduates of the VisionQuest adjudicated program with 257 male juvenile delinquents who had been placed in other probation programs, and found that VisionQuest graduates had proportionately fewer arrests. Further evidence in support of VisionQuest's effectiveness is provided in a study by Goodstein and Sontheimer (1987) who found an arrest rate for VisionQuest graduates of 37 percent, compared to an arrest rate for control programs of 51 percent.

A more recent study by Castellano and Soderstrom (1992) evaluated the effects of the Spectrum Wilderness Program, a 30-day "Outward Bound" type of wilderness challenge program, on the number of post-program arrests. They found reduced arrests among graduates, which lasted for about one-year after the program. At this point, the positive program results began to decay to the point where they were no longer apparent. This is consistent with the findings of Greenwood and Turner (1987) and other reviews of the literature (Gibson, 1979; Winterdyck and Griffiths, 1984).

Recent studies found reduced arrests among graduates of OBH related programs, which lasted for up to one-year after the program.



Picture courtesy of Aspen Health Services

Conclusions from Literature Review

In conclusion, the literature indicates that wilderness and outdoor programs that are comparable to OBH, yield benefits to participants, with particularly positive effects on self-concept and social skill development. Though few studies were found, they did reveal positive results in the treatment of drug and alcohol abuse, reduced recidivism, reduced frequency of deviant behaviors, and fewer arrests. More research is needed, however. In particular, OBH research needs to more accurately evaluate how OBH programs assess client presenting problems, examine methods and treatments specifically applied to these problems, and utilize reliable measurements to assess outcomes from treatment. Also, outcome research should utilize comparable outcome measures which can be replicated across multiple programs. Only then can OBH programs identify treatment strategies which are most effective for specific presenting problem behaviors, and under what conditions these strategies can be most effectively employed.



Picture courtesy of Wilderness Quest

Research indicates that wilderness and outdoor treatment programs like OBH have positive effects on self-esteem and social skill development.

PART TWO: A NATIONWIDE SURVEY OF OBH PROGRAMS

Introduction

We carried out a nationwide survey of 116 OBH programs that met pertinent OBH criteria to determine the characteristics and extent of the outdoor behavioral healthcare industry. Our inquiry was driven by questions such as:

- How many OBH programs are currently operating?
- How many of each type of OBH program are currently operating?
- Who are the typical clients?
- How much do OBH programs charge for treatment?
- To what extent are participants supported by co-pay institutions, such as medical insurance, social service agencies, or judicial systems?
- How much revenue and how many field days of use does the OBH industry generate?
- To what extent are OBH programs licensed by state agencies?
- To what extent are OBH programs accredited by national healthcare accrediting agencies?

Our nationwide survey methods and results are described in the following.

Survey Research Methods

Data about the use of wilderness environments for personal growth and healing are scarce, but past surveys of wilderness experience programs (WEPs), of which OBH programs are a part, provide a basis for determining the number of outdoor behavioral healthcare programs currently operating. In general, other authors have acknowledged the difficulty of identifying WEPs because attrition and on-going establishment of new WEPs makes it difficult to maintain an accurate inventory. The common purpose of many of the studies was simply to identify programs, determine the characteristics of clientele, and document the activities of programs. Several studies suggest classification schemes or models for making functional and philosophical comparisons between WEPs or personal growth training programs (Davis-Berman & Berman, 1994a; Dawson et al., 1998; Friese, 1996; Hopkins & Putnam, 1993; Tangen-Foster & Dawson, 1999; Watters, 1987; Young, 1987).

Surveys of programs most closely fitting the definition of OBH used in this study were used as a guide in identifying programs. Davis-Berman and Berman (1994a) surveyed 47 therapeutic wilderness programs defined as mental health (31), court (12), and school (4) programs, all of whom were members of the Association of Experiential Education (AEE). Friese

Cooley (1998) estimated that 10,000 clients a year are served by wilderness treatment programs, and Russell & Hendee (2000) estimated \$143 million dollars in annual revenues from 38 programs. This survey provides additional data on numbers of clients and revenues.

(1996) used a snowball sampling approach to identify, and a questionnaire inquiry to contact, 699 wilderness experience programs operating in the United States, with 484 WEPs (69.2%) responding by sending their promotional materials (321) and/or completing the survey (131 completed the survey only). A typology of programs was developed to classify WEPs along a spectrum with “Wilderness as teacher” at one extreme and “Wilderness as classroom” at the other. WEPs in the typology are compared with respect to: role of trip leadership, from passive to active; relative dependence on wilderness characteristics, from greater to lower; goals determination, from individual determines to program/group determines; activity emphasis, from reflective activities to challenge adventure or teaching activities; and skills utilized, from soft skill emphasis to hard skill emphasis (Friese, 1996, p. 156; Friese et al., 1998). Dawson et al. (1998) re-surveyed the Friese respondent programs and categorized them as educational (43%), personal growth (47%), and therapy and healing (10%) and also categorized their risk management practices (Tangen-Foster & Dawson, 1999).

Crisp (1998) surveyed 38 US therapeutic wilderness programs in a study to determine if common theory and practice were evident across programs. Finally, Carpenter (1998) identified 38 therapeutic wilderness programs in a study to determine the extent and nature of the evaluation of treatment effects. Thus, despite using inconsistent definitions, a minimum of 38 and a maximum of 47 therapeutic wilderness programs were identified in these U.S. studies. Finally, Cooley (1998) estimated that 10,000 clients a year are served by wilderness treatment programs, and Russell and Hendee (2000) estimated annual revenues of \$143 million dollars per year for 38 known wilderness therapy program--based on extrapolation from complete data for five established programs.

These surveys and estimates served as a guide to begin establishing a database of programs to study the nature and extent of the OBH industry. Table 1 cites the author and findings of studies related to identification and classification of WEPs and OBH programs.



Picture courtesy of Edwin Krumpe

Table 1. Studies identifying and classifying wilderness experience programs related to outdoor behavioral healthcare.

Author	Findings
Burton, 1981	300 WEPs target various populations of juvenile delinquents, psychiatric patients, corporate managers, and educators.
Crisp, 1997	Surveyed 38 U.S. therapeutic wilderness programs to better define adventure therapy. Develop parameters and terminology and a typology of programs.
Carpenter, 1998	Surveyed 38 U.S. wilderness therapy programs to determine types of evaluation procedures utilized by programs. Showed that programs were indeed collecting context data and using it to formulate program goals but relied on staff for evaluation purposes and used few external resources.
Davis-Berman and Berman, 1994a	Identification and inventory of a wide variety of WEPs, primarily Association for Experiential Education members, to introduce different types of programs and encourage research. Their categories of mental health, court, school, and health and enrichment were based on the predominant emphasis as determined by examination of materials given to them by programs.
Dawson et al., 1998	Survey of 330 WEPs identified by Friese (1996) confirming relevance of his prior classification of "wilderness as teacher" and "wilderness as classroom". Further classified 179 responding WEPs as educational (43%), personal growth (47%), and therapy and healing (10%).
Friese, 1996	The most current and comprehensive study to date, identified and classified over 350 WEPs based on the primary aim, types of leadership employed, skill emphasis, number and types of clientele, and kinds of areas used. A typology was developed that placed programs on a spectrum of wilderness as teacher (wilderness is the key element) to wilderness as classroom (wilderness is the medium). A directory of WEPs was also compiled.
Gass and McPhee, 1990	Inventory of the number and size of adventure therapy programs, and how they use adventure for substance abuse recovery, identified 61 programs. They had an 81% response rate to their letter of inquiry and questionnaire focusing on clientele, program characteristics, expenses and funding, staffing, and program research findings. The average program was 2.5 years old, used a wide variety of activities; behavior-oriented goals were most important; average staff held advanced degrees and had two-years of experience; and little research is done of program effectiveness.
Miranda and Yerkes, 1987	Survey of women's outdoor adventure programming, and its participants to determine what was being offered, clientele demographic characteristics, and the impact of adventure on women.
Ringer and Gillis, 1995	Classification scheme for adventure activities based on their primary goals and features. Four types are recreation, education/ training, development and psychotherapy.
Roberts, 1989	Comprehensive inventory and description of 10 WEPs that serve a juvenile justice function with summary data about program location, characteristics, number of 1984 participants, the staff to youth ratio, and program evaluation or follow-up activities. Also discusses research on program effectiveness, and recommendations for additional research.
Tangen-Foster & Dawson, 1998	Categorized 179 responding WEP programs according to risk management practices.
Vogl and Vogl, 1990	Found goals of most wilderness education programs were improving self-concept and social relations, not improving wilderness ethics or environmental attitudes. Outcomes of programs are skills learning, nature appreciation, social interaction, and use of metaphor.

IMPLEMENTING THE SURVEY

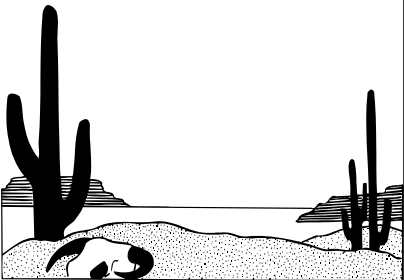
The survey reported here gathered data on the following program characteristics (see Appendix B for the survey document): 1) organizational structure and history, including how long the program has been in operation, profit or nonprofit status, and number of staff; 2) financial indicators, including number of clients served, and revenues; 3) client and their family characteristics; 4) assessment models employed, including outcome and risk assessment procedures; and, 5) insurance company recognition, state licensure and accreditation.

Six tasks were completed following guidelines from the tailored design method by Dillman (2000): 1) a list of programs was developed fitting our definition of outdoor behavioral healthcare (described in Part I); 2) key personnel at each program were contacted by telephone and asked to participate in the study; 3) a cover letter and attached survey were mailed to the director of each program (see Appendix B); 4) a follow-up letter and phone call were made to the key person at each program, and in many cases a facsimile was sent if the survey was not yet returned; 5) data were entered and coded; and 6) data were analyzed based on research questions guiding the study. Each of these tasks is reviewed in the following.

A phone call was made to each program (see Appendix A for the list of programs) asking them to identify the highest ranking person in the organization. A brief introduction explained who was sponsoring the study (Outdoor Behavioral Healthcare Research Cooperative at the University of Idaho-Wilderness Research Center), the purpose of the phone call, the objectives and process of the survey, and asked if they would like to participate. If they declined and suggested another person in the organization to participate, this was noted. Whomever in the organization was identified as the contact person was told that the survey would be mailed to the program within two weeks of the telephone call. They were then asked if they would fill out the survey, and a follow-up call was scheduled for one week after the participant was to receive the survey. This procedure was followed for each identified program (N = 116).

The survey was mailed to the identified contact person at each program during the time period April through July 2000. Approximately one-week after the receipt of the survey, the scheduled follow-up call asked the contact person if they had completed the survey, and if they had any questions. Questions were answered and this procedure was followed until all programs had been contacted at least twice after having received the survey.

Data from the returned surveys were coded and entered into Statistical Program for the Social Sciences (SPSS) as they were received. Data were analyzed with frequency distributions, descriptive statistics to identify industry wide averages and cross tabulations to determine frequencies and relationships between types of programs, program models and other key variables of interest.



The following research questions (RQ) guided the data analysis.

RQ1. How many private placement and adjudicated OBH programs are currently operating and when did they begin?

RQ2. What OBH program models are currently operating?

RQ3. How are OBH programs organized and sponsored?

RQ4. How many clients are served by OBH programs, and how much does treatment cost?

RQ5. What revenues are generated by OBH programs?

RQ6. To what extent are OBH programs recognized by insurance companies (receive co-payment), licensed by state agencies and accredited by national agencies?

RQ7. What is the typical duration of treatment, and how much time is spent on wilderness expedition?

RQ8. What role do parents play in OBH?

RQ9. What demographic types of clients (gender, age, ethnic origin and family income) do OBH programs serve?

RQ10. What behavioral and emotional diagnoses are accepted by OBH programs?

RQ11. To what extent have clients tried other types of counseling prior to treatment, and to what extent are aftercare services utilized?

RQ12. To what extent do OBH programs evaluate effectiveness of treatment?

Answers to these research questions are presented in the following to develop a profile of the organizational, financial, process, and demographic characteristics of the industry, and the clients and families they serve.

Survey Results

The survey was sent to **116 OBH programs** for which a personal contact had been made, and to which **86 responded**, yielding a **response rate of 74 percent**. Programs received follow-up contact four times, including two letters and two phone calls. The 74 percent response rate is within the range of response rates of previous comparable studies, which have reported response rates of between 45 and 80 percent (Davis-Berman & Berman, 1994a; Dawson et al., 1998; Friese, 1996; O'Keefe, 1989).

1. How many OBH programs are there and when did they begin operation?

Each program was asked whether they fit the description of an adjudicated or a private placement program. **Adjudicated** programs are those where clients are placed in the program by judicial authorities in order to intervene, diagnose, assess, and begin treatment for emotional, behavioral, or substance abuse problems exhibited by at-risk adolescents. **Private placement** programs are those where parents or custodial authorities place the client in treatment designed to intervene, diagnose, assess, and begin treatment for emotional, behavioral, or substance abuse problems exhibited by at-risk adolescents.

Table 2. Adjudicated and private placement OBH programs responding to the survey.

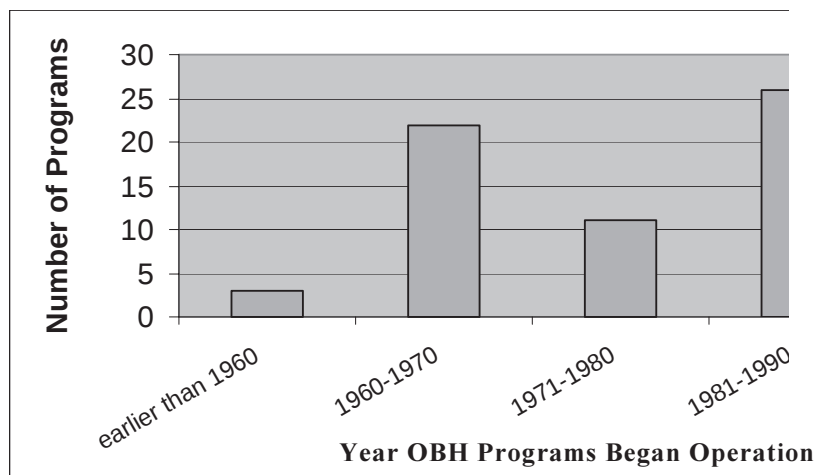
Types of Programs	Number	Percent
Adjudicated	16	19%
Private Placement	70	81%
Total	86	100%

81% of the respondents were private placement programs

Table 2 shows that the **majority of responding programs were private placement (81%) with adjudicated programs representing only 19% of the respondents.**

Programs were asked to identify the year they began operation, so we could learn more about the organizational history of the industry. Figure 2 shows **about 3 percent of the programs began operation before 1960, 25 percent had begun by 1980, and 35 percent by 1990. Nearly half of the programs started operation since 1980, and more than 20 percent during the 1990s.** One might conclude that most of the OBH industry is relatively new, a majority of programs having originated in the past two decades, but with formative roots going back to the 1960s and 1970s.

Figure 2. Year OBH programs began operation.



Nearly half of OBH programs started operation since 1980, and more than 20% during the 1990s

2. What OBH program models are currently operating?

Programs were also asked which of the four OBH program models they primarily utilized--based on the degree and manner to which they used wilderness or outdoor environments in treatment. For example: **contained expedition programs (CEs)**, where clients and the treatment team remain together on a wilderness expedition for the majority of the therapeutic process; **continuous flow expedition programs (CFEs)**, where clients remain in the wilderness or outdoor environment for the majority of the program and leaders and clients rotate in and out of the field, with new enrollees joining experienced participants in on-going groups; **base camp expedition programs (BEs)** which have a structured base camp in a natural environment and take expedition outings from the base; and **residential expedition programs (REs)** which are usually longer, and include emotional growth schools, residential treatment centers, and other therapeutic designations, where wilderness expeditions are used as a tool to augment other treatment services.

Table 3 shows that **almost half the responding programs were residential expedition programs (46%), followed by base camp expeditions (23%). Contained expedition (17%) and continuous flow expedition programs (11%), where clients spend almost all their time in treatment on wilderness expedition, together account for 28 percent of the programs.**

The prevalence of residential expedition programs may be due to their ability to supplement a longer term treatment or educational program with treatment expeditions for direct interventions. This is consistent with the belief that short-term wilderness expeditions alone may not be sufficient to adequately treat adolescents with serious emotional and behavioral problems.

Table 3. Responding OBH programs by program type and model utilized.

OBH Model	Number	Percent
Residential Expedition	40	46%
Base Camp Expedition	20	23
Contained Expedition	15	17
Continuous Flow Expedition	8	11
Other	3	3
Total	86	100%

Almost half the responding programs were residential expedition programs (46%), followed by base camp expedition programs (23%). Programs where clients spend almost all their time on wilderness expedition account for 28% of the responding programs.

3. How are OBH programs organized and sponsored?

To better understand the financial organization of the OBH industry, each program was asked to describe its organizational structure (i.e. private nonprofit, corporate, government, etc.). Table 4 shows that **among both adjudicated and private placement programs, more than half of the responding programs were operated by nonprofit organizations, and a third of the adjudicated programs were operated by some governmental entity.**

Among private placement programs, 41 percent were operated by private-“for-profit” organizations, (37% corporate, and 4% sole proprietors), and only 6 percent by any governmental entity.

Table 4. OBH organizational structure by program type.

Program Type	Organizational Structure	Number of Programs	Percent
Adjudicated	Sole Proprietor	0	0%
	Private Corporate	1	6
	Private nonprofit	10	63
	Government	5	31
	Other	0	0
	Total	16	100%
Private Placement	Sole Proprietor	3	4%
	Private Corporate	26	37
	Private nonprofit	37	53
	Government	4	6
	Other	0	0
	Total	70	100%

These data may not fully describe the government and judicial system’s relationship with OBH programs, however. Many of the programs (corporate and nonprofit) have established contracts with government agencies, judicial systems and social-service agencies, or have clients placed or co-paid by them. For example, Three Springs, a nonprofit organization with corporate offices in Huntsville Alabama, has multiple contracts with state agencies to work with court referred adolescents. So, while only nine OBH programs are government operated, like the Nokimis Challenge program operated by the State of Michigan or the Trapper Creek Job Corps operated by the US Forest Service for the Department of Labor, **a supportive relationship exists between the OBH industry and several agencies in Federal, State, and local governments.**

Among both adjudicated and private placement programs, more than half of the responding programs were operated by nonprofit organizations, and a third of the adjudicated programs were operated by government agencies.

4. How many clients are served by OBH programs and how much does treatment cost?

We asked OBH programs how many clients they served in 1999. **A total of 9,148 clients were served in 1999 by OBH programs responding to our survey, an average of 103 clients per program.** If we assume that the nonresponding programs serve a similar number of clients, the OBH industry serves more than 11,000 clients per year. This is comparable to other estimates that OBH serves about 10,000 clients per year (Cooley, 1998). Figure 3 shows that **40 percent of all programs serve between 100 and 149 clients per year, with 20 percent serving over 150 clients per year and 20 percent serving under 100 clients per year.**

Figure 3. Annual number of clients served by number of

programs

To examine cost of treatment in OBH, each program was asked for their daily charge for treatment per client. **Table 5 shows that the average per day cost of treatment in adjudicated programs is \$123 per day, and \$161 per day for private placement programs.** By including the average length of each program model, it was possible to calculate average total cost of treatment per client.

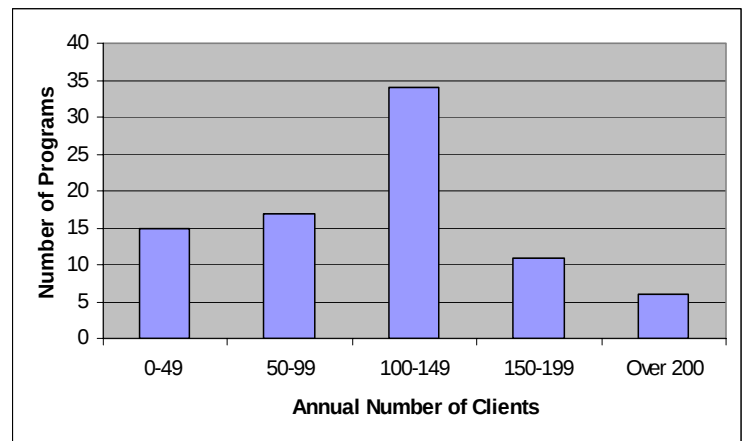


Table 5. Average per day client treatment cost, program length, and average cost of treatment per client by program type and model.

Program Type	Program Model	Number of Programs	Ave. Per Day Cost of Treatment (\$)	Ave. Total Length of Program (Days)	Ave. Total Cost of Treatment Per Client
Adjudicated	Base Camp	0	-	-	
	Continuous Flow	1	\$200.00	32	\$6,400
	Contained Expedition	3	\$82.33	37	\$3,046
	Residential Expedition	11	\$138.22	220	\$30,360
	Other	1	\$35.00	120	\$4,200
	Adjudicated Ave.	16	\$123.29	167	\$20,541
Private Placement	Base Camp	20	\$154.06	288	\$44,352
	Continuous Flow	7	\$239.50	65	\$15,567
	Contained Expedition	12	\$135.91	42	\$5,708
	Residential Expedition	29	\$173.25	302	\$52,321
	Other	2	\$78.50	5	\$392
	Private Placement Ave.	70	\$161.07	218	\$35,098

The average per day cost of treatment in adjudicated programs is \$123 per day, and \$161 per day for private placement programs



Picture courtesy of Aspen Health Services

The most expensive reported per day charge for OBH is by continuous flow expedition programs, with an average daily cost of treatment of \$200 for adjudicated programs and \$239 for private placement programs. The lowest per day charge for OBH treatment is the contained expedition model (adjudicated at \$83 and private placement at \$139). Three programs (one adjudicated and one private placement) were categorized in the “other” category and had even lower costs per day because of relationships established with outside agencies and foundations who provide co-pay for clients.

When looking at average total cost of treatment, program length is the decisive factor. Thus, residential expedition programs were the most expensive for both adjudicated (\$30,360) and private placement (\$52,321) programs. The private placement base camp expedition model was next (\$44,352) but there are no such adjudicated programs. This higher total cost is because these types of programs also provide educational curricula and other services in addition to OBH experiences and treatment.

By factoring out the cost of treatment associated with just the time spent on wilderness expedition, the cost attributable to treatment in the wilderness is \$7,704 for adjudicated and \$6,577 for private placement programs respectively. This more closely reflects the costs of the contained expedition programs that spend a greater percentage of time in wilderness, and which were the least expensive (\$3,046 and \$5,708 respectively) due to their shorter lengths of stay of 3-6 weeks. These data do indicate that OBH is very expensive, and documents the high cost of treatment for adolescents with emotional, psychological and behavioral problems, including substance abuse.

Despite the seemingly high cost of OBH treatment, the per day charges are much less than traditional treatment. According to Regence Blue Shield Health of Idaho, the national per day charge for residential treatment for adolescent substance treatment is \$664 per/day (personal communication by Keith Russell, October 17, 2000).

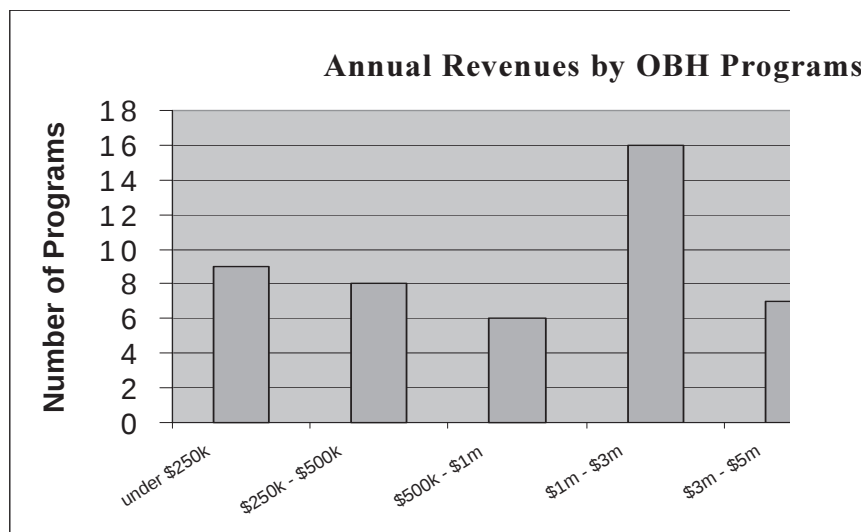
5. What revenues are generated by OBH programs?

No doubt because of the sensitive nature of the annual revenue question, only one-half of the programs responded to the item asking for their annual revenues in 1998.

Figure 3 shows that adjudicated programs report higher average revenues than the private placement programs (\$2.2 million annual revenues and \$1.6 million respectively), most likely because the adjudicated programs are typically longer.

The average annual gross revenues for reporting adjudicated programs was \$2.2 million and \$1.6 million for private placement programs.

Figure 4. Gross revenues reported for 1998 by 46 OBH responding programs.



OBH as an industry generates substantial revenues, perhaps \$200-300 million dollars per year.

It is not possible to accurately calculate the total revenues generated by all 116 OBH programs we identified, or even the 86 programs who responded to the survey, since only 46 programs reported their annual revenues. But with the data from the responding programs we can simulate the total industry revenues if we are willing to assume that the average annual revenues for each reporting program type can be representative of the 116 programs identified and extrapolate the values. We did this simulation for the 86 responding programs by each program type. Average annual revenues for adjudicated programs were \$35.2 million (16 programs at \$2.2 million) and \$114 million for private placement programs (70 programs at \$1.6 million). Expanding this total of \$149.2 million by 26% to account proportionately for the nonresponding programs as if they were representative generates another \$38.2 million. This simulation suggests that the OBH industry generates \$188 million dollars per year, a conservative estimate based on other simulations.

Calculated another way, taking average total treatment cost across program models, and assuming programs average 103 clients per year, a figure of over \$300 million is generated. **These simulations provide rough estimates, but they do suggest that OBH as an industry generates substantial revenues—possibly approaching \$200-300 million dollars per year.**

6. To what extent are OBH programs licensed (receive co-payment) by state agencies, recognized by insurance companies and accredited by national organizations?

The emergence of outdoor behavioral healthcare as a relatively new treatment approach in behavioral healthcare, some highly publicized incidents (Janofsky & Meier, 1999), and some obviously poorly operated programs (Krakauer, 1995) have led to: 1) states trying to determine how best to regulate the industry; 2) managed care and health insurance organizations trying to determine if OBH is worthy of co-payment, and 3) national accreditation agencies like the Council

As OBH has evolved from wilderness challenge programs to include clinically supervised services, states have begun licensing them like other (more traditional) behavioral healthcare programs.

More than 80% of all OBH programs are licensed by a state agency

State agencies reported to license programs included: Department of Juvenile Justice, Department of Social Services, Department of Corrections, Department of Youth Services, Department of Education, and Department of Family Services.

on Accreditation (COA) and Joint Council on Accreditation of Healthcare Organizations (JCAHO) considering OBH applications and trying to determine if they meet national standards of care applied to traditional behavioral healthcare. Such recognition is important to the credibility of the industry and public confidence in OBH. To explore this evolving situation, our survey asked each program if: a) they were licensed by a state agency, b) their clients received co-payment from insurance companies, and c) they were accredited by a national accreditation agency. The responses to these items are presented in Tables 6, 7 and 8.

Licensing

More than 80 percent of OBH programs are licensed by a state agency (88% of adjudicated and 84% of private placement programs).

Table 6. The percentage of adjudicated and private placement programs who are state licensed.

Program Type	Number	Percentage of programs with some form of state licensure
Adjudicated	16	88%
Private Placement	70	84%

The high percentage of licensed adjudicated programs is not surprising because they have established relationships with judicial authorities in the state in which they operate. The high percentage of private placement programs who are licensed reflects a recognition by state agencies of their responsibilities to oversee standards of care, a movement which began in the late 1980s in Utah and Arizona after a few incidents of neglect were reported (see Krakauer, 1995). Some states, Idaho and Oregon for example, do not yet license OBH programs but are currently working to establish regulations and a licensing process.

No one type of state agency is licensing OBH programs. State agencies which respondents said were licensing them included: Department of Juvenile Justice, Department of Social Services, Department of Corrections, Department of Youth Services, Department of Education, and Department of Family Services. OBH programs appear to be supportive of licensing evidenced by **many program staff serving on committees to help state agencies identify their unique needs in setting state standards.** State licensing is viewed as a positive trend by programs because it facilitates recognition by insurance companies and national accreditation agencies and provides a degree of oversight that improves the quality of care in the industry.

Medical Insurance Co-Payment

Table 7 shows **almost one-third (31%) of adjudicated programs have clients receiving co-pay from insurance companies, but these clients are reported to have only a small percentage (4%) of their costs covered.**

Perhaps this reflects the relationship many adjudicated programs have with state agencies—the state may already cover some costs of treatment. Also, adjudicated clients are generally sent to OBH programs for primary reasons other than medical.

Private placement programs are actively seeking recognition by health insurance companies to make treatment more affordable and **more than half of the private placement programs (70%) reported some client co-payment by insurance companies, with an average of 22 percent of client costs covered by insurance.** So, despite some insurance co-payment, by far the majority of the cost of OBH treatment in private placement programs falls on parents or custodial authorities.

Table 7. The number and percentage of programs who have clients receiving some co-payment for treatment from insurance, and the average percentage of client costs covered.

Program Type	Total Programs	Programs reporting clients receiving co-pay	Ave. percent treatment cost covered by insurance co-pay for clients
Adjudicated	16	5 (31%)	4%
Private Placement	70	49 (70%)	22%

Accreditation

To become accredited by a national accrediting organization requires that an OBH program go beyond state requirements and meet higher standards of care. According to the Council on Accreditation of Services for Families and Children (COA), programs must fulfill several criteria to meet the national standards, some of which include: a formalized process for evaluating the quality of service, state licensure, and proof of insurance (<http://www.coanet.org/>). **Table 8 shows that about one-third (31%) of adjudicated programs and more than half of the private placement programs (57%) are accredited by a national organization.**

Table 8. The number and percent of responding programs who are nationally accredited.

	Total Programs	Accredited
Adjudicated	16	5 (31%)
Private Placement	70	40 (57%)

70% of private placement programs report clients receiving co-pay to help cover treatment costs, with an average of 22% of those costs covered.

One-third of adjudicated programs and more than half of the private placement programs are accredited by a national organization.

The accrediting agencies recognizing one or more OBH programs include: Joint Commission on Accreditation of Health Organizations (JCHAO) (30%); Association for Experiential Education (AEE) (10%); Council on Accreditation (COA) (5%); and the American Corrections Association (ACA) (5%).

7. What is the typical duration of treatment and how much time is spent on wilderness expedition?

Outdoor behavioral healthcare programs vary in total length and in the amount of time they spend on wilderness expedition (Table 9). But all programs spend time in wilderness or on outdoor expeditions, ranging from 5 to 70 days during the program.

Table 9. Average total length of treatment in OBH programs, and percent time spent on wilderness expedition.

Program Type	Program Model	Number of Programs	Ave. Length of Program (Days)	Ave. Percent Time Spent on Wilderness Expedition	Ave. Number of Days on Wilderness Expedition
Adjudicated	Base Camp	0			
	Continuous Flow Expedition	1	32	50%	16 days
	Contained Expedition	3	37	65	24
	Residential Expedition	11	220	32	70
	Other	1	120	50	60
Private Placement	Base Camp	19	288	23%	66 days
	Continuous Flow Expedition	7	65	96	62
	Contained Expedition	12	42	67	28
	Residential Expedition	27	302	7	21
	Other	2	5	0	5

Among the contained and continuous flow expedition models, a larger percentage of time is spent in wilderness since the programs are shorter in length than residential programs and their focus is wilderness treatment. For example, among private placement programs, continuous flow expedition models spend almost all their time in wilderness (96% and 62 days).

Contained expedition programs spend two-thirds of their time in wilderness (28 days), meaning that staff and clients remain together in wilderness for up to four weeks. Private placement residential expedition programs, which average 302 days in length, spend only 7% of their time, or 21 days, on wilderness expedition, reflecting the fact that many of these programs are schools and use wilderness as a tool to augment their educational and other therapeutic services.

OBH use of wilderness and public lands is an important component of the larger wilderness experience program enterprise, accounting for 420,000 user days annually.

The cumulative impact on wilderness and comparable public lands from field days spent on OBH expeditions is significant, especially considering that the OBH industry is growing and only adds to use by the larger wilderness experience program (WEP) enterprise. We estimated the total number of field days generated by the 86 programs responding to our survey by multiplying the average number of reported days on wilderness expedition by program type and the average number of clients. This procedure generated an estimated total of **70,040 field days for adjudicated programs** (42.5 average days multiplied by 103 clients per year and 16 programs) and **263, 165 field days for private placement programs** (36.5 average days multiplied by 103 clients per year and 70 programs). If we assume the 26% of nonresponding programs have similar use days, **the OBH industry generates almost 420,000 user days in the field a year.** Clearly, the use of wilderness and related public lands is an important and sizeable activity by OBH. Concern about the impacts of such use prompted the Outdoor Behavioral Healthcare Industry Council (OBHIC) to publish their land use philosophy (OBHIC, 2000).

8. What role do parents play in OBH?

Staff at wilderness programs believe that parent involvement in treatment improves outcomes and reduces the likelihood of recidivism. To explore the role of parents and family in the treatment process we asked the programs: a) if they had a defined curriculum for parents while clients were in treatment, and if they did, b) how much time the parents spent in the curriculum, and the numbers of hours in contact with the program while their son or daughter was in treatment.

Table 10. Percentage of programs with a defined parent curriculum, and the average number of hours parents spend in the curriculum and in contact with the program.

Program Type	Percentage of programs with defined parent curricula	Average number of hours parents spend on the parent curriculum	Average number of contact hours parents spend with program
Adjudicated	32%	9 hours	22 hours
Private Placement	73%	43 hours	33 hours

Table 10 shows that parent involvement is substantial but not universal. Treatment curricula for parents included suggested readings, parent seminars, meetings with therapists and counselors with their child, and attending graduation ceremonies. **Only 32 percent of adjudicated programs reported having treatment curricula for parents, but over 73 percent of the private placement programs had parent curricula.** The private placement curricula were longer, averaging 43 hours, with an average of 33 contact hours with the program. Adjudicated program curricula averaged only 9 hours, and 22 hours of contact with the program. The substantial parent curricula and program contact supports the family systems approach by working extensively with parents, who are impacted by, and may be triggering some of their child's behavioral problems.

Parents spend considerable time at OBH programs and involved in parent curricula to better understand how they can help to change their child's problem behaviors.



Picture courtesy of Anasazi Foundation

9. What demographic categories of clients and families do OBH programs serve?

OBH clients from responding programs were overwhelmingly male (85% adjudicated and 80% private placement).

Table 11. Clients gender in responding OBH programs.

Client Demographics	Gender	Adjudicated (Average Percent)	Private Placement (Average Percent)
Gender	Male	85%	80%
	Female	15%	20%

85% of clients in adjudicated and 80% in private placement programs are male.



Picture courtesy of Wilderness Quest

Over 90 percent of all the OBH clients in responding programs are between the ages of 13-17, with less than 10 percent being either younger than 12 years or older than 18 (see Table 12).

One-third of the clients in adjudicated programs were African American, nearly one-half Caucasian American (47%), and 13 percent Hispanic. The remainder were either Native American or Alaskan Natives (5%), Asian American/Pacific Islander (5%), and other (4%). In private placement programs, almost three-quarters of the clients were Caucasian American and only one-third were minorities--13.5 percent African American, 12 percent Hispanic American, Native American or Alaskan Natives (8%), Asian American/Pacific Islander (3%), and other (3%).

Table 12. Average age and ethnic origin of OBH clients.

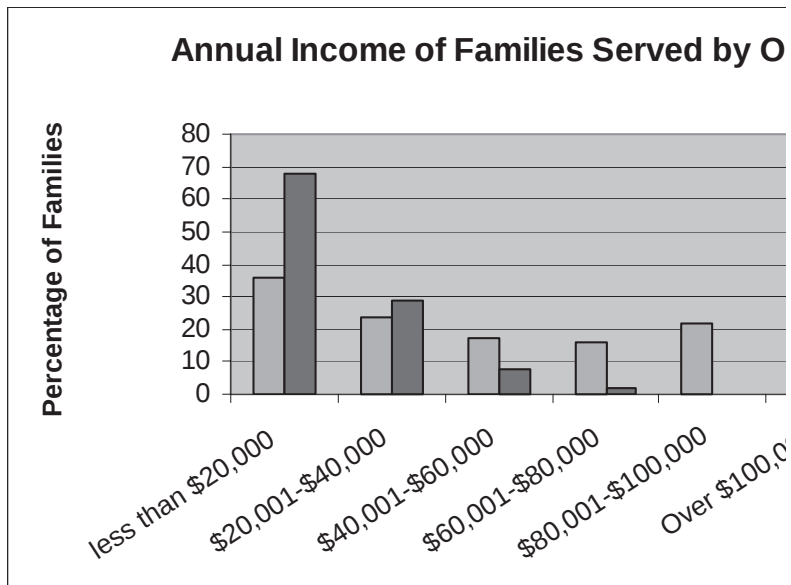
Client Demographics	Characteristic	Adjudicated (Average Percent) Do Not Total 100%*	Private Placement (Average Percent) Do Not Total 100%*
Age	Less than 12 years	5%	10%
	13-14 years	28	37
	15-17 years	67	54
	18 years and older	5	9
Ethnic Origin	African American	34%	14%
	American Indian/Alaskan Native	5	8
	Asian American/ Pacific Islander	5	3
	Caucasian American	47	74
	Hispanic American	13	12
	Other	4.0	2.6

* These are average percentages across age groups reported by programs, therefore they do not total 100%.

Economic Characteristics of Families

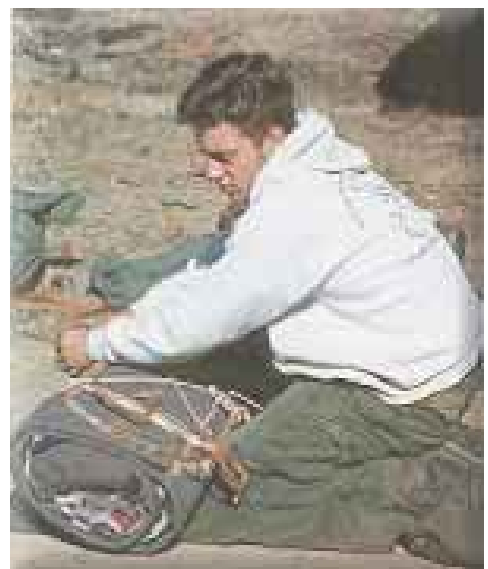
To better understand socioeconomic characteristics of families served by OBH, programs were asked to report the family income category for their clients. Figure 4 shows the percentage of families served by OBH programs in respective income brackets for adjudicated and private placement programs.

Figure 5. Family income category for OBH clients served by adjudicated and private placement programs.



Two-thirds (67%) of adjudicated program clients come from families who earn less than \$20,000 a year, less than one-third from families earning up to \$40,000 per year, with no adjudicated client families earning more than \$80,000 per year.

Private placement program clients come from families with higher incomes—with 42 percent earning more than \$80,000 per year and nearly 60 percent earning more than \$60,000 per year. But private placement programs also serve clients in lower income brackets, with a third coming from annual family incomes less than \$20,000. Many private programs have scholarships or working agreements with social service agencies so they can accept clients with lower incomes.



Picture courtesy of Anasazi Foundation

10. What behavioral and emotional disorders are served by OBH?

The clinical diagnoses of clients is an important consideration in OBH. What behavioral and emotional disorders do OBH programs accept? Each program was asked to check the types of clinical issues they accept into their respective programs (Table 13).

The majority of OBH programs work with issues such as Low Self Esteem (98%), Attention Deficit Hyperactive Disorder (95%), Oppositional Defiant (93%), Depression (92%), Anxiety (91%) and Learning Disorders (90%). Fewer programs accept those clients with a History of Violence (54%) or Eating Disorders (53%). Only 37 percent accepted sexual abuse perpetrators, and only 8 percent accepted clients with the serious mental illness, Schizophrenia.

Table 13. Behavioral disorders accepted by OBH for treatment.

Clinical Issue	Percentage of Programs
Low Self -Esteem	98%
Attention Deficit Hyperactive Disorder (ADHD)	95
Oppositional Defiant	93
Depression	92
Conduct Disorder	92
Anxiety	91
Learning Disorder	90
School Refusal	89
Runaway	88
Sexual Abuse Victim	84
Substance Abuse	82
Physical Abuse	82
Personality Disorder	70
Social Phobia	67
Chemical Dependency	63
Suicidal Ideation	61
History of Violence	54
Eating Disorders	53
Sexual Abuse Perpetrators	37
Schizophrenia	8



11. To what extent have OBH clients tried prior counseling services, and are aftercare services utilized?

OBH is often used as an intervention and treatment for adolescents not being reached by traditional counseling services. To explore this idea, OBH programs were asked what percentage of their clients had been in counseling prior to enrolling in the program, and also to describe the type of counseling services (treatment) received.

Table 14. Clients that have been in other forms of counseling prior to enrollment in OBH, and types of treatment.

		Adjudicated		Private Placement	
		Percent (Number) of Programs with Clients Having Prior Treatment	Ave. Percent of Clients	Percent (Number) of Programs with Clients in Prior Treatment	Ave. Percent of Clients
Prior Treatment		100%	26%	100%	76%
Types of Prior Treatment	In Patient Hospital	50% (8)	26	49% (34)	17
	Residential Treatment	69% (11)	37	49% (34)	15
	Alternative School	56% (9)	47	63% (44)	25
	Outpatient Counseling	63% (10)	34	91% (63)	57
	Other OBH	25% (4)	11	37% (26)	10

Three-fourths (76%) of private placement programs report their clients have been in prior treatment compared to one-fourth (26%) in adjudicated programs.

Table 14 shows that **all programs, adjudicated and private placement, have some clients that have been in prior treatment. Private placement programs report that three-fourths (76%) of their clients have been in prior treatment compared to one-fourth (26%) in adjudicated programs.** The finding may be explained by the economic differences in the clients served, with private placement programs serving more affluent clients who may have been more able to afford counseling services for their child.

The types of prior treatment referenced by adjudicated programs include: alternative schools (47%), residential treatment (37%), and outpatient counseling (34%). Types of prior treatment referenced by private placement programs include: outpatient counseling (57%), alternative schools (25%), in-patient hospitals (17%), and residential treatment centers (15%).

More than 80% of clients in OBH return home after treatment is complete (rather than going to an aftercare facility), 82% in adjudicated and 84% in private placement programs.

Post-treatment Aftercare

Aftercare services for clients following OBH treatment are an important consideration, especially for the short-term programs (1-8 weeks). Aftercare seeks to maintain the gains made in behavior and insights from the OBH program and prevent relapse. Each program was asked if clients utilized aftercare services, and, if they did, what types of services were utilized. Table 15 shows the number of clients who return home after completing an OBH program, and the type of aftercare services utilized by those clients.

Table 15. Average percentage of clients returning home after completing OBH, and types of aftercare services used.

		Adjudicated		Private Placement	
		Average Percent Return Home		Average Percent Return Home	
Percent Return Home After OBH*		82%		84%	
		Percent (Number) of Responding Programs	Ave. Percent of Clients	Percent (Number) of Responding Programs	Ave. Percent of Clients
Types of Aftercare Services	Return to Prior School with No Outpatient Counseling	36% (5)	44%	36% (25)	31%
	Prior School with Outpatient Counseling	63% (10)	47	45% (32)	40
	Alternative School No Outpatient Counseling	38% (6)	20	30% (21)	27
	Alternative School Outpatient Counseling	50% (8)	19	37% (26)	26

*Home is referred to in this question as the place of residence with the primary custodial authority of the adolescent.

Adjudicated programs reported a variety of aftercare services utilized. About one-third of the programs (36%) stated that 44 percent of their clients returned home. More than half of the programs (63%) stated that almost half (47%) of their clients return home and receive outpatient counseling. A small percentage of private placement programs reported no aftercare services being utilized by clients (36% of programs stated that 31% did not utilize aftercare services). Private placement clients who did utilize aftercare services included: returning to their prior school with outpatient counseling (45% of programs reported 40% of clients), alternative school with no outpatient counseling (30% of programs reported 27% of their clients), and alternative school with outpatient counseling (37% of programs reported 26% of their clients). Thus, no clear pattern of aftercare services emerged for either adjudicated or private placement programs and both types of programs report that over 80 percent of their clients are returning directly home after treatment.

The need to work with parents to help transition the child to the home environment appears to be critical given that most clients return home after completion of treatment, and many receive no special aftercare treatment. This is a growing edge for OBH. Many OBH programs report actively working with aftercare service providers to ensure that the necessary structure is in place to help the client maintain therapeutic progress made in the OBH program (Russell, 1999). Relapse is common for patients engaged in treatment for substance abuse, with high relapse rates common and most typically occurring during the first three months following treatment initiation (Hitchcock, Stainback, & Roque, 1995). It is accepted that participation in aftercare therapy improves treatment outcomes for substance abusers (Lash & Blosser, 1999) and that aftercare should function to maintain earlier gains in treatment, rather than initiating new changes and that it be viewed as an appropriate extension of any form of primary care that precedes it. A bottom line is that rarely can short-term OBH programs alone affect permanent behavior change without some aftercare follow-up.

12. To what extent do OBH programs evaluate effectiveness of treatment?

A variety of approaches are used in OBH to evaluate program effectiveness based on the specific needs of each organization.

Table 16. Types of evaluation procedures used in OBH to assess program results.

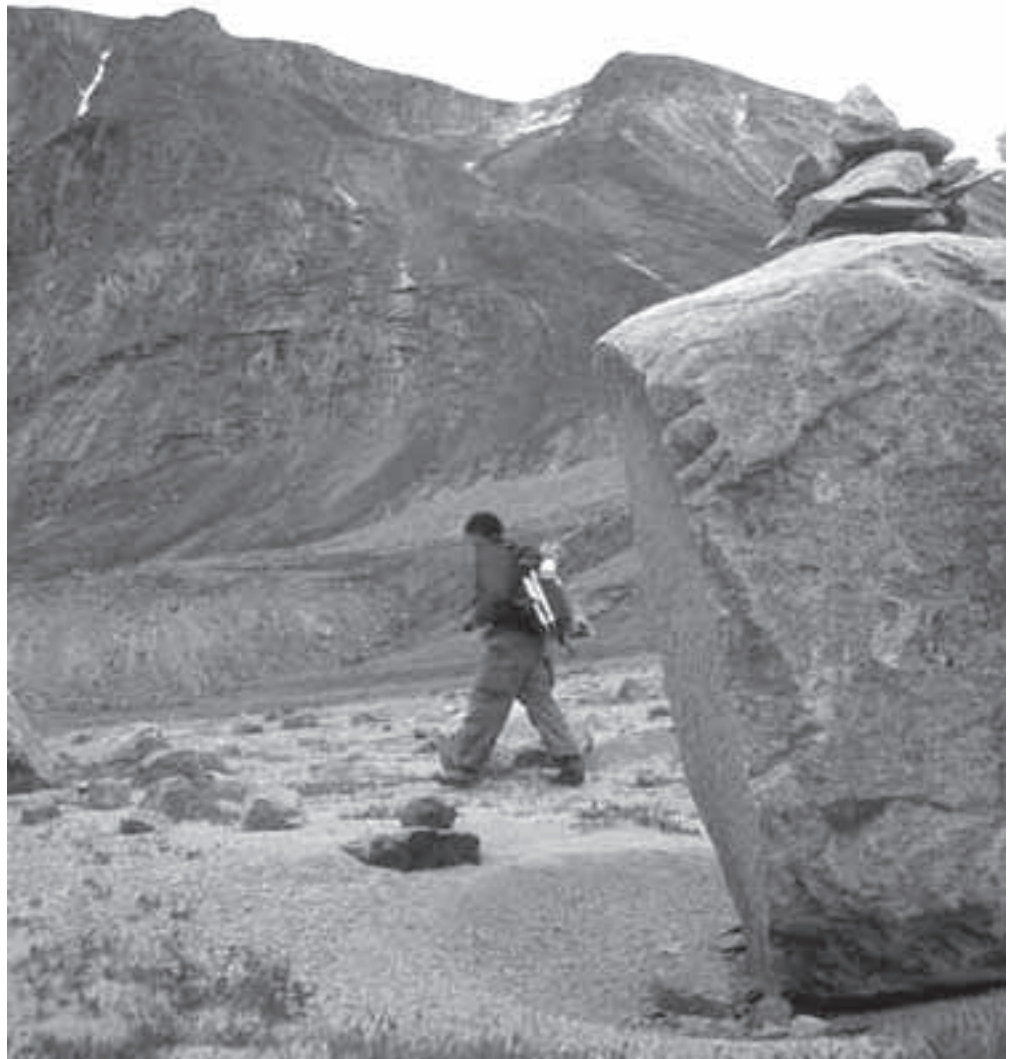
Types of Evaluation Procedures	Number of Programs	Percent of Programs
Recidivism Outcome Studies Conducted by Program	28	44%
Written Evaluation by Client Conducted by Program	18	19%
External Evaluation Utilizing Accreditation Standards	6	7%
Telephone Interview with Client	5	6%
Other	7	11%
Total Number of Programs that Conduct Formal Evaluation of Treatment Effectiveness	64	74%
Total Number of Programs that <u>Do Not</u> Conduct Formal Evaluation of Treatment Effectiveness	22	26%

Table 16 shows that the **responding OBH programs primarily conduct internal evaluations (67%), with recidivism outcome studies, written evaluations by the client and follow-up telephone interviews and surveys noted as the primary methods. Only 7% of the programs surveyed indicated that they use external evaluation and standards.** These standards might include those of the Joint Council on Accreditation of Health Organizations (JCHAO) and Council on Accreditation (COA). The various outcome studies reported by programs ranged from long-term follow-up studies to shorter 3- and 6-month assessments.

It is a matter of concern for the industry that there are few outcome studies of OBH effects published in peer reviewed journals. Carpenter (1998) recently completed a survey of the evaluation practices of 35 wilderness therapy programs for at-risk youth and noted the “lack of industry wide evaluation and accreditation standards and enforcement which leaves programs at a greater

Three-quarters of responding programs (74%) said they used a formal process to evaluate their program. However, only 7% of all programs are using external evaluations and standards.

risk for allegations of abuse, neglect, and general poor efficacy” (Carpenter, 1998, p.20). The goal of evaluation procedures, as defined by Carpenter (1998) is “to gather information to determine the relative value of the program (or some of its components) and to guide decision-making related to planning, structuring, implementation and recycling to minimize risk while providing effective therapeutic services” (p.6).



SUMMARY AND CONCLUSIONS

Outdoor behavioral healthcare is an emerging intervention and treatment to help adolescents overcome emotional, adjustment, addiction, and psychological problems. The outdoor behavioral healthcare process involves immersion in an unfamiliar environment, group living with peers, individual and group therapy sessions, educational curricula including backcountry travel and wilderness living skills, all designed to address problem behaviors and foster personal and social responsibility and emotional growth of clients. A family systems perspective guiding treatment aims to restore family functioning and support which has been upset by the problem behaviors of adolescent clients.

Mental health providers, insurance companies and juvenile authorities are increasingly looking to outdoor behavioral healthcare as a viable alternative to traditional mental health services because of its relative effectiveness and lower cost compared to traditional residential and outpatient treatment. Not enough mental health services are available that are suited for adolescents' unique needs. There is a lack of middle ground between outpatient services, which may be inadequate and to which adolescents are often unlikely to commit, and inpatient programs which may be overly restrictive. Outdoor behavioral healthcare helps bridge the gap between these extremes, its appeal strengthened by a growing reputation for economy and therapeutic effectiveness when compared with other mental health services.

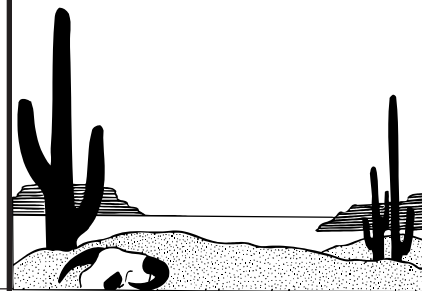
Data from the 86 OBH programs who responded to the survey (74% response rate) support several conclusions.

Private placement programs clearly outnumber adjudicated programs and represent an expanding segment of the industry.

Private placement programs who responded to our survey outnumber adjudicated programs nearly 5 to 1, (70 private placement compared to only 16 adjudicated programs) and this ratio is comparable among the programs not responding. Most new programs established in the 1990s were private placement. For example, of the 19 new programs starting up in the 1990s, 16 were private placement, and only 3 adjudicated.

Most OBH clients are Caucasian American males age 13 to 17, but adjudicated programs report 53 percent minority clients compared to 26 percent in private placement programs.

Males represented 85 percent of the clients in adjudicated programs and 80 percent in private placement programs, with over 90 percent between the ages of 13-17. Less than half (47%) of the clients in adjudicated programs are Caucasian, compared to nearly three-quarters (74%) of private placement clients. About 15 percent of adjudicated program clients were female and 20 percent were female in private placement programs.



Most clients have tried other forms of counseling prior to OBH, but clients in adjudicated programs were less likely (25%) to have used prior counseling services than those in private placement programs (75%).

The finding may be explained by the economic differences in the clients served, with private placement programs serving many more affluent clients who may be more able to afford counseling services for their child.

OBH treatment is less expensive than traditional treatment for adolescent substance abuse and behavioral disorders, but averages \$151 per day.

The average per day charge for treatment in adjudicated programs is \$123 per day, and \$161 for private placement programs, the overall average per day for all programs being \$151 per day. According to Regence Blue Shield Health of Idaho, the national per day charge for residential treatment for adolescent substance treatment is \$664 per/day (personal communication by Keith Russell, October 17, 2000).

Most OBH programs are licensed by the state in which they operate and many are accredited by national organizations.

More than 80 percent of all OBH programs are licensed by state agencies (adjudicated 88% and private placement 84%), ranging from judicial systems to departments of family services. A smaller percentage of adjudicated programs (31%) and slightly more than half of the private placement programs (57%) are nationally certified by some accrediting agency.

Medical insurance is deferring some of the costs of OBH treatment.

Seventy percent of private placement OBH programs reported some client co-payment from medical insurance companies, with an average of 22 percent of client costs covered by insurance. Adjudicated programs (31%) received medical insurance co-payment covering only 4% of the costs. An unknown extent of clients receive co-payment support from other sources, such as social service or judicial systems.

OBH as an industry generates substantial revenues, maybe as much as \$200-300 million dollars per year.

It is not possible to accurately calculate the total revenues generated by all 116 OBH programs we identified, or even the 86 programs who responded to the survey, since only 46 programs reported their annual revenues. But with the data from the responding programs, we simulated the total industry revenues by assuming the average annual revenues for each reporting program type could be representative of the 116 programs identified and then extrapolated the values. This simulation suggests that the OBH industry generates approximately \$188 million dollars per year. In another simulation we projected tuition revenues based on average total treatment cost and average number of reported clients which produced a figure of over \$300 million.

Field days of use extrapolated from data in this study suggest that OBH may generate 420,000 user days per year on wilderness or outdoor expeditions, with most use occurring on public lands, some in designated wilderness areas.

We estimated this total number of field days generated by the 86 programs responding to our survey by multiplying the average number of reported days on wilderness expedition by program type and the average number of clients. Clearly, the use of wilderness and related public lands is an important and sizeable activity by OBH. Concern about the impacts of such use prompted the Outdoor Behavioral Healthcare Industry Council (OBHIC) to publish their land use philosophy (OBHIC, 2000).

CONCLUSION

The goal of this publication and study is to improve understanding about outdoor behavioral healthcare by parents, insurance companies, judicial authorities and social service agencies, public land management agencies, and Federal, State and local officials. All these parties would seem to benefit from knowing more about OBH as an emerging intervention and treatment to help troubled adolescents and their families. OBH also generates substantial days of use of public lands and is a growing economic enterprise, likely generating between \$150-200 million dollars of revenue annually. Thus, we have tried to define common elements of outdoor behavioral healthcare including terminology, theoretical approaches, historical origins of the practice, its growth over the last three decades, and the status of the OBH industry based on a current survey of 116 programs meeting OBH criteria.



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APPENDIX A: LIST OF OUTDOOR BEHAVIORAL HEALTHCARE PROGRAMS SURVEYED, MAY-OCTOBER 2000

Organization Name	Address	City	State	Zipcode
Abraxas	10058 S. Mtn, PO Box 403	South Mountain	Pennsylvania	17261
Academy at Swift River	151 South St.	Cummington	Massachusetts	1026
Adirondack Wilderness Challenge	PO Box 151	Schulyer Falls	New York	12985
Adventure Alternatives	2686 Lishelle Pl.	Virginia Beach	Virginia	23452
Adventure Discovery Treatment Program	403 W. Birch	Flagstaff	Arizona	86001
Affinity Foundation	Box 1677	Eureka	Montana	59917
Anasazi Foundation	1424 South Stapley	Mesa	Arizona	85204
Appalachian Mountain Teen Project	PO Box 197	Wolfeboro	New Hampshire	03894
Arcadia Leadership Academy	485 Inn Rd.	Buchanan	Virginia	24066
Ascent	PO Box 230	Naples	Idaho	83847
Aspen Achievement Academy	PO Box 400	Loa	Utah	84747
Aspen Youth Alternatives	PO Box 400	Loa	Utah	84747
Baxley Wilderness Insitute	Rt. 2 Box 845	Baxley	Georgia	31513
Big Cypress Wilderness Institute	HCR 61 Box 77 25959 Turner River Road	Ochopee	Florida	24141
Blackwater Outdoor Experiences	13821 Village Mill Drive	Midlothian	Virginia	23113

Blue Mountain Wilderness Program	PO Box 879	San Andreas	California	95249
Camp E-How-Kee (Eckerd Youth Alternative)	397 Culbreath Rd.	Brooksville	Florida	34602
Camp E-Hun-Tee (Eckerd Youth Alternatives)	Rt 1 Box 607A	Exeter	Rhode Island	02822
Camp E-Kel-Etu (Eckerd Youth Alternatives)	Rt 3 Box 655	Silver Springs	Florida	32688
Camp E-Ku-Sumee (Eckerd Youth Alternatives)	Rt 1 Box 60	Candor	North Carolina	27229
Camp E-Ma-Chamee (Eckerd Youth Alternatives)	Rt 1 Box 178B	Milton	Florida	32570
Camp E-Ma-Etu (Eckerd Youth Alternatives)	4654 High Rock Rd.	Lenoir	North Carolina	28606
Camp E-Ma-Henwu (Eckerd Youth Alternatives)	388 Nine Mile Rd.	Newport	North Carolina	28570
Camp E-Ma-Laku (Eckerd Youth Alternatives)	100 N. Starcrest Drive	Clearwater	Florida	33765
Camp E-Mun-Talee (Eckerd Youth Alternatives)	Rt 1 Box 270	Lowgap	North Carolina	27024
Camp E-Nini-Hasee (Eckerd Youth Alternatives)	7027 Stage Coach Trail	Floral City	Florida	32636
Camp E-Sun Alee (Eckerd Youth Alternatives)	Rt 1 Box 81	Deel Lodge	Tennessee	37726
Camp E-Toh-Anee (Eckerd Youth Alternatives)	Rt 1 Box 164E	Colebrook	New Hampshire	03576
Camp E-Ten-Etu (Eckerd Youth Alternatives)	633 Shepard's Wan Lane	Manson	North Carolina	27553
Camp E-Tik-Etu (Eckerd Youth Alternatives)	1086 Susie Sand Hill Rd.	Elizabeth	North Carolina	28337
Camp E-Tol-Kalu (Eckerd Youth Alternatives)	Route 4 Box 282	Hendersonville	North Carolina	28739
Camp E-Tu-Makee (Eckerd Youth Alternatives)	Rt Box 6	Clewiston	Florida	33440
Camp E-Tu-Nak (Eckerd Youth Alternatives)	Rt 5 Box 1080	Blakley	Georgia	31723
Camp E-Wen-Akee (Eckerd Youth Alternatives)	Rt 2 Box 6800	Fairhaven	Vermont	05743

Camp Woodson	714 Old US Highway 70	Swannanoa	North Carolina	28778
Camp Woodson Juvenile Evaluation Center	741 010 Hwy 70	Swannanoa	North Carolina	28778
Cascade Schhol Wilderness Program	PO Box 9	Whitmore	CA	96096
Catherine Freer Wilderness Therapy Expeditions	PO Box 1064	Albany	Oregon	97321
Charlotte Outdoor Adventure Center	2601 E. 7th St.	Charlotte	North Carolina	28204
Crossroads Wilderness Institute	45991 Bermont Rd.	Punta Gorda	Florida	33982
Emily Griffith Center	PO Box 95	Larkspur	Colorado	80118
Escambia River-OB	430Tedder Rd.	Century	Florida	32535
Explorations Inc	PO Box 1303	Trout Creek	Montana	59874
Florida Program-OB	177 Salem Crt.	Tallahassee	Florida	32301
Franklin D. Roosevelt Wilderness Camp	PO Box 427	Warm Springs	Georgia	31830
Galena Ridge Wilderness	20 Fox Lane	Trout Creek	Montana	59874
Glacier Mountain Expeditions	PO Box 458	Cocolalla	Idaho	83813
Hidden Lake Academy	830 Hidden Lk Rd.	Dahlonge	Georgia	30533
High Peaks Wilderness Program	50 N. 200 East	Roosevelt	Utah	84066
Homme Youth and Family Programs	PO Box G	Wittenberg	Wisconsin	54499
Hope Center	4115 Yoakum	Houston	TX	77006
Horizons	4700 Norwood Dr.	Bethesda	Maryland	20815

Human Services Associates Inc.	7050 Willowrun Loop	Lakeland	Florida	33813
Hurricane Island Outward Bound	Rt 2 Box 237-E	Yulee	Florida	32097
Inner Harbour Psychiatric Hospitals Ltd.	4685 Dorsett Shoals Rd.	Douglasville	Georgia	30135
John De La Howe School	Route 1 Box 154	McCormick	South Carolina	29835
Kent Mountain Adventure Center Inc.	PO Box 835	Estes Park	Colorado	80517
Key Largo Base-OB	100693 Over Seas Hwy.	Key Largo	Florida	33037
Life Adventure Camp	122 Oak Hill Drive	Lexington	Kentucky	40505
Manatee Center-OB	38620 State Rd 64 East	Myakka	Florida	34251
Middle Georgia Wilderness Institute	RT 4 Box 276-20	Cochran	Georgia	31014
Mount Bachelor Academy	PO Box 7468	Bend	Oregon	97708
New Dominion School Incorporated	PO Box 540	Dillwyn	Virginia	23936
New Dominion School of Maryland	PO Box 8	Old Town	Maryland	21555
New Dominion School of Virginia	PO Box 540	Dilwyn	Virginia	23936
New Frontiers	3939 Snowhill Rd.	Dowelltown	Tennessee	37059
Nokimus Challenge Center	6300 Suws 1. Reserve Rd.	Prudenville	Michigan	48651
Northwest Academy	Box 230	Naples	Idaho	83847
Northwest Passage	Box 349	Webster	Wisconsin	54893
Obsidian Trails	606 SE Glenwood PO Box 7616	Bend	Oregon	97708

On Track-Brown Schools	PO Box 1566	Mason	Texas	76856
Outside In School of Experiential Education	PO Box 639	Greensburg	Pennsylvania	15601
Peace River-OB	8806 SW Start Center St.	Arcadia	Florida	34266
Peninsula Village	PO Box 100	Louisville	Tennessee	37777
Pineland	2048 Young Mill Rd.	Lagrange	Georgia	30240
Pressley Ridge School at Laurle Park	Rt 5 Box 697	Clarksburg	West Virginia	26301
Pressley Ridge School at Ohiopyle	Rt 1 Box 25	Ohiopyle	Pennsylvania	15470
Project Adventure - LEGACY	PO Box 2447	Covington	Georgia	30210
Ravens Way	SARHC	Sitka	Alaska	99835
Ranch EHRLO	Box 570	Pilot Butte	Saskatchewan	50632
Redcliff Ascent	1250 West Sunset Blvd.	St. George	Utah	84770
Remi Vista Ranch School	PO Box 264	Coming	California	96021
Rocky Mountain Academy	Route 1	Bonnors Ferry	Idaho	83805
Sage Walk	PO Box 6735	Bend	Oregon	97708
Salesmanship Club Youth Camp	Route 1 Box 305	Hawkins	Texas	75765
Santa Fe Mountain Center	PO Box 449	Tesuque	New Mexico	87574
Scottsman –OB	PO Box 417	Scottsmorr	Florida	32775
Second Nature	97 East Main St. Box 318	Duchesne	Utah	84021

Soar	PO Box 388	Balsam	North Carolina	28707
Soltreks	6815 E. Superior St.	Duluth	Minnesota	55804
Southern Land Programs-OB	3108 Bell River Estate Rd.	Yulee	Florida	32097
Stone Mountain School at Camp Elliot	601 Camp Elliot Road	Black Mountain	North Carolina	28711
Summit Achievement	Deer Hill Road Box 500	Fryeburg	Maine	04037
SunHawk Academy	765 N. Bluff Suite G	St. George	Utah	84770
SUWS	911 Preacher Creek Rd.	Shoshone	Idaho	83352
Telos Youth Outposts Incorporated	5020 Truscott Lane	El Dorado	California	95623
The North American Wilderness Academy	17351 Trinity Mtn Rd.	French Gulch	California	96033
Wilderness Therapy Program Lifespan Counseling	1698 Forestdale Ave.	Dayton	Ohio	45432
Thistledew Camp	62741 Country Road 551	Togo	Minnesota	55788
Three Springs Headquarters	247 Chateau Dr. Suite A	Huntsville	Alabama	35801
Three Springs of Blue Ridge	Rt 2 Box 2686	Blue Ridge	Georgia	30513
Three Springs of Duck River	PO Box 297	Centerville	Tennessee	37033
Three Springs of North Carolina	PO Box 1320	Pittsboro	North Carolina	27312
Three Springs of North Carolina	Rt 3 990 Clovers Chapel Rd.	Siler City	North Carolina	27312
Three Springs of Paint Rock Valley	PO Box 20	Trenton	Alabama	35774
Three Springs Residential Treatment Program	PO Box 20	Trenton	Alabama	35774
Trapper Creek Job Corps	5139 west Fork Road	Darby	Montana	59829

Tresslercare Wilderness Services	5171 Mountain Rd./PO Box 10	Boiling Springs	Pennsylvania	17007
Trex	355 North East Kearney	Bend	Oregon	97701
Trinity Adventures	PO Box 994383	Redding	California	55321
VisionQuest National	PO Box 12906	Tuscon	Arizona	85732
West Florida Wilderness Institute	RR2 Box 1789	Ponce De Leon	Florida	32455
Wilderness Inquiry	1313 5th St. SE Ste. 327A	Minneapolis	Minnesota	55414
Wilderness School	PO Box 298	East Hartland	Connecticut	06027
Wilderness Treatment Center	200 Hubbart Dam Road	Marion	Montana	59925
Wilderness Youth Project	PO Box 1101	Santa Barbara	California	93102
Woodside Trails Therapeutic Wilderness Camp	PO Box 999	Smithville	Texas	78957



Thank you for participating in this important study. Please have the director or the person most familiar with your organization complete the survey. Approximate estimations are appropriate where indicated. Please return the survey in the enclosed self-addressed stamped envelope.

NAME OF ORGANIZATION _____

NAME/TITLE (IF MORE THAN ONE, PLEASE LIST) _____

1. BASIC PROGRAM CHARACTERISTICS

1.1 Which type of outdoor behavioral healthcare best describes your program? (please check one)

_____ **Adjudicated (Court-referred)**

_____ **Behavior or Adjustment Change (behavior, emotional, drug and alcohol, alt. education etc.)**

1.2 Which outdoor behavioral healthcare model best describes your program?

_____ **Base Camp** (Outdoor structured base camp with some overnight camping or wilderness expedition)

_____ **Continuous Flow Expedition** (Staff rotate in and out of field, new clients join existing groups on continuous expedition)

_____ **Contained Expedition** (Same staff and clients remain together on expedition for duration)

_____ **Mixed residential with wilderness component** (Residential treatment center with wilderness component)

_____ **Other (please specify)** _____

1.3. Do you have a defined curriculum for parents of clients? _____ **Yes** _____ **No**

If yes, how many hours during program are parents engaged in the curriculum? _____ **Total Hours**

If yes, how many contact hours do parents spend with the child at the program? _____ **Contact Hours**

1.4 When did your program begin its first year of operation? _____

1.5 What is the most staff you employ during a calendar year? _____

1.6 The least? _____

1.7 What is the average length of stay in your program (# of days)? _____

1.8 Total number of clients served in 1999 _____

1.9 What professional credentials do you require for direct care staff to be employed by your program? (please list all that apply)

Training and certification of wilderness and field guides

Therapists

1.10 After staff are employed by your program, what areas do you expect staff to be further trained in and/or credentials do you expect staff to receive? (please list all that apply)

Therapists

Direct Care Supervisory Staff

1.11 What is your average direct care staff : client ratio maintained by your program?

_____ staff : client ratio

1.12 What percentage of your user days take place on the following public and/or private lands? (please estimate irrespective of whether it is designated wilderness)

(Total 100%)

_____ % State lands

_____ % Forest Service lands

_____ % Bureau of Land Management lands

_____ % Native American or Tribal lands

_____ % Private lands

_____ % Other (please specify)

1.13 How many wilderness user days (clients and staff) did you and your clients spend on Federally designated wilderness in 1998?

(For example 1,000 clients x 30 day program = 30,000 user days)

_____ total wilderness user days

1.14 What percentage of time does the client spend on expedition (wilderness or comparable lands) in your program?

(For example, an 8-month program with a 28-day wilderness component of the program = 12% or 8-week program where the client is on expedition the whole time = 100%)

_____ % time on expedition in wilderness or comparable lands

2. FINANCIAL INFORMATION

2.1 What is the organizational structure which best describes your program?

_____ (partnership, sole proprietor, private corporate, private non-profit, government)

2.2 Funding sources which support your organization (please estimate percent of total revenues)

(Total 100%)

Grant or Foundation

_____ % private donations

Tuition Fees

_____ % client tuition/fees

_____ % your endowment

_____ other (please specify)

_____ % government agency

_____ % corporate contributions

2.3 What is the average per/day charge for clients in your program?

_____ \$ per/day

_____ (if more than one type of program please specify)

2.4 What approximate percentage of your clients receive some sort of co-pay and from what source?

(Total 100%)

_____ % Medical Insurance

_____ % Social Service Agency

_____ % Scholarship

_____ % Other (please specify)

2.5 What is the average percentage of individual clients costs received by medical insurance benefits?

_____ %

2.6 What were your total organization gross revenues in 1998?

_____ \$1998 Total Gross Revenues

2.7 What do you expect your total organizational gross revenue will be for fiscal year 1999?

_____ \$1999 Total Gross Revenues

3. CLIENT AND FAMILY CHARACTERISTICS

3.1 What approximate percentage of your clients are male and female?

(Total 100%)

_____ % Male _____ % Female

3.2 What percentage of your clients are in each of the following age groups? (percentage may be approximate)

(Total 100%)

_____ % Less than or 12 years _____ % 15-17 years
_____ % 13-14 years _____ % 18 years and older

3.3 What approximate percentage of your clients are in each of the following racial or ethnic groups?

(Total 100%)

_____ % African American _____ % Hispanic American
_____ % Asian American/Pacific Islander _____ % American Indian/Alaskan Native
_____ % Caucasian American _____ % Other (please specify)

3.4 Please estimate the percentage of your clients represented by each of the following socio-economic levels as indicated by their family household income?

(Total 100%)

_____ % less than \$20,000 _____ % \$61,000-\$80,000
_____ % \$21,000-\$40,000 _____ % \$81,000-\$100,000

_____ % \$41,000-\$60,000 _____ % Over \$100,000

3.5 What percentage of your clients are:

(Total 100%)

_____ local (in state) _____ international (live outside the U.S.)
_____ regional (within your national region) _____ re-
_____ national (within U.S.)

3.6 What percentage of your clients have the following referral sources (please estimate):

(Total 100%)

_____ self	_____ government agency (please specify)
_____ parent/guardian	_____ internet
_____ hospital	_____ therapist/counselor
_____ adjudicated	_____ other treatment program
_____ educational consultant	_____ previous clients
_____ church	_____ other
_____ school	

3.7 What percentage of your clients come to the program:

(Total 100%)

_____ voluntarily
_____ escorted by legal authorities
_____ under parental guidance and supervision
_____ other (please specify)

_____ under escort services supervision

3.8 Clinical issues which are accepted in the program: (check all that apply)

☐ Anxiety	☐ Physical Abuse Victim
☐ Attention Deficit/Hyperactive Disorder	☐ Runaway
☐ Chemical Dependency	☐ Schizophrenia
☐ Conduct Disorder/Delinquency	☐ School Refusal
☐ Depression	☐ Sexual Abuse Perpetrator
☐ Eating Disorder	☐ Sexual Abuse Victim
☐ History of Violence	☐ Social Phobia
☐ Learning Disorder	☐ Substance Abuse
☐ Low Self Esteem	☐ Suicidal Ideation
☐ Oppositional Defiant	☐ Other
☐ Personality Disorder	

3.9 What approximate percentage of your clients have been in counseling and or other therapeutic programs?

_____ % prior treatment

If percent in treatment, please specify type of treatment

(Total 100%)

☐ % in-patient hospital
☐ % other residential treatment centers
☐ % other outdoor behavioral healthcare
☐ % outpatient counseling
☐ % alternative or special school

3.10 What approximate percentage of your clients return home after your program is complete?

_____ % return home

3.12 For those clients that **do return home**, what approximate percentage are in the following types of after-care?

(Total 100% who do return home)

_____ % previous school no outpatient counseling

_____ % previous school outpatient counseling

_____ % alternative school no outpatient counseling

_____ % alternative school outpatient counseling

3.13 For those clients that **do not return home**, what approximate percentage go onto the following types of aftercare programs?

(Total 100% who do not return home)

_____ % transition home

_____ % therapeutic boarding school

_____ % long term residential drug and alcohol treatment facility

_____ % in patient hospital

_____ % other (please specify)

3.14. Total clients served in 1999 _____

4. EVALUATION AND ASSESSMENT

4.1 Do you have a formal system for evaluating client and family outcomes? Yes or No (please describe)

4.2 Do you contact all clients and their families after the program is complete? Yes or No (please describe)

5. LICENSING, ACCREDITATION AND INSURANCE ELIGIBILITY

5.1 Is your program currently licensed by the state? Yes or No (please describe and list licensing agent)

5.2 Is your program currently licensed by regional educational association? (please describe and list)

5.3 Is your program currently accredited by an nationally recognized accrediting organization? (JCAHO, COA, CARF) (please describe and list accreditation)

Please provide any feedback on the questionnaire that you have. The more specific the better. Did you think any of the questions were irrelevant? Did you think some of the information was more useful than others? Did you think some questions were particularly important?

