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A Research Paper on Wilderness Therapy

WILDERNESS THERAPY AS AN INTERVENTION AND TREATMENT FOR ADOLESCENTS WITH BEHAVIORAL PROBLEMS

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Abstract

Wilderness therapy is an emerging intervention and treatment to help adolescents overcome emotional, adjustment, addiction, and psychological problems. **Contained System** wilderness therapy programs are usually up to three-weeks long, operating in a wilderness expedition model in which clients and leaders stay together for the duration of the trip. **Continuous Flow System** programs are longer, up to 8 weeks in length, and have clients continually admitted to on-going groups with leaders rotating in and out of the field.

In both contained and continuous flow wilderness therapy systems, the therapeutic process includes the careful selection of appropriate clients, based on a clinical assessment, and the creation of an individual treatment plan for each participant. Individual and group therapy techniques are applied in a wilderness setting and facilitated by qualified professionals, with formal evaluative procedures used to assess the clients' progress. Wilderness therapy utilizes expedition-based outdoor pursuits such as backpacking, educational curricula including primitive skills such as fire making, and provides extended periods of introspective alone time for clients. Wilderness self

care and group safety are facilitated by natural consequences, thereby teaching personal and social responsibility, and creating a neutral and safe environment to apply the real and metaphoric lessons learned to life situations with which clients are struggling.

Adolescent boys with behavioral problems are the most prevalent clients, a majority of whom have diagnoses which are drug and alcohol related. Wilderness therapy treatment includes: 1) a cleansing phase, which occurs early in the program; 2) a personal and social responsibility phase, a particular focus once the cleansing phase is well underway or complete; and 3) transition and aftercare phase.

Recent surveys have identified 38 wilderness therapy programs operating in the United States, and in this paper data from five such programs are projected to illustrate the vitality, relative size, and potential resource use of wilderness therapy. If we extrapolate the data as if they represented the 38 known programs, a suggested total of 11,600 clients were served in 1997 and 12,005 in 1998, generating 340,290 wilderness field days (wfd) in 1997 and 392,000 wfd in 1998 respectively, and generating annual gross revenues of \$128 million dollars in 1997 and \$143 million dollars in 1998.

Better communication between wilderness managers and wilderness therapy leaders would help close an existing gap in understanding between what are necessary and desirable practices for the benefit of wilderness-this a concern for wilderness therapy programs since they need wilderness to operate, as well as wilderness managers, who are mandated to protect the ecological integrity of wilderness. This strengthened relationship can help deal with misperceptions about wilderness therapy, minimize impacts on wilderness, and maximize benefits from wilderness therapy as a positive intervention in the lives of troubled adolescents.

Wilderness Therapy as an Intervention and Treatment for Adolescents with Behavioral Problems

Wilderness therapy is an emerging intervention and treatment in mental health practice to help adolescents overcome emotional, adjustment, addiction, and psychological problems. The wilderness therapy process involves immersion in an unfamiliar environment, group living with peers, individual and group therapy sessions, educational curricula, including a mastery of primitive skills such as fire-making and backcountry travel, all designed to address problem behaviors and foster personal and social responsibility and emotional growth of clients.

Mental health providers, insurance companies, and juvenile authorities are beginning to accept wilderness therapy as a viable alternative to traditional mental health services because of its relative effectiveness and lower cost compared to traditional residential and outpatient treatment. Following is an overview of wilderness therapy, drawing upon our recent research on the use of wilderness for personal growth and current data from five wilderness therapy programs.

Wilderness Therapy Defined

Wilderness therapy is often confused with the broader field of wilderness experience programs (WEPs) aimed at the personal growth of participants, such as Outward Bound and other adventure challenge programs, or reflective experience programs, such as wilderness vision questing. Wilderness therapy programs are only a small part of the larger wilderness experience program (WEP) industry, consisting of about 40 programs compared to 500 in the larger category (Friese, Hendee, & Kinziger, 1998). More precisely, the definition of wilderness therapy includes the careful selection of appropriate clients, based on a clinical assessment, and the creation of an individual treatment plan for each participant (Davis-Berman and Berman, 1994, p. 13). Individual and group therapy techniques are applied in a wilderness setting and facilitated by qualified professionals, with formal evaluative procedures used to assess the clients' progress. Wilderness therapy utilizes expedition-based outdoor pursuits such as backpacking, educational curricula including primitive skills such as fire making, and provides extended periods of introspective alone time for clients. Wilderness self care and group safety are facilitated by natural consequences that help teach personal and social responsibility, and create a neutral and safe environment to apply the real and metaphoric lessons learned to the life situations with which clients are struggling.

The Emergence of Wilderness Therapy

Adolescents in the United States are very much at risk, brought on in recent years by profound cultural changes, including unstructured home environments from an increase in two-income households and one-parent families, and a media culture that bombards adolescents with images of sex, violence and excitement. These and other cultural stimuli have contributed to the epidemic of emotional disorders in US adolescents. Four million of the 26 million adolescents between the ages of 12 and 19 have emotional problems severe enough to require treatment, with a Center for Disease Control study indicating that one out of 12 high school students attempted suicide in the year preceding the study (In Davis-Berman & Berman, 1994). These disturbing statistics are

consistent with the estimate that between 70% to 80% of the children with clinical mental disorders may not be getting the mental services they need (Tuma, 1989).

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 (Tuma, 1989).

Wilderness therapy is helping bridge the gap between these extremes, it's appeal strengthened by a growing reputation for economy and therapeutic effectiveness when compared with other mental health services.

Current Status of the Wilderness Therapy Industry

Data about the wilderness therapy industry are scarce, but recent surveys provide a basis for estimating the number of wilderness therapy programs currently operating. Friese (1996) identified 500 wilderness experience programs (WEPs), defined as organizations that conduct outdoor programs in wilderness or comparable lands for purposes of personal growth, therapy, rehabilitation, education or leadership and organizational development. Thirty programs fitting the definition of wilderness therapy were identified in this survey. Subsequently, Carpenter (1998) identified six additional wilderness therapy programs beyond these, and Crisp (1996) identified two more expedition-based US wilderness therapy programs not identified by Friese and Carpenter. Thus, a minimum of 38 wilderness therapy programs have been identified in the US, with perhaps a few additional programs missed in these three surveys.

Cooley (1998) estimates that approximately 10,000 adolescents are being served by wilderness treatment on an annual basis, generating 330,000 user days and \$60 million in annual revenue. In the following we present data from five wilderness therapy programs that illustrate the vitality, relative size, and potential resource use of wilderness therapy (see Tables 1 and 2). While these programs are not a random sample, it is interesting to generalize them as if they represented the 38 wilderness therapy programs identified by Friese (1996), Crisp (1997), and Carpenter (1998). Since our data represent a spectrum of programs in size, ranging from 200 to 500 clients served annually, they resemble an adequate profile, and allow a data-based assessment of the industry. In fact, these data are a conservative estimate due to a high probability that there are additional programs not identified by the previously mentioned surveys, and because these data only include those programs that are expedition-based-there are additional programs utilizing wilderness therapy principles but

operating from a base-camp model.

Our data indicate that all five programs grew in clients served from 1997 to 1998, with three of the five increasing the number of trips they offered (see Table 1). Wilderness field days (wfd) were calculated by multiplying clients served by the length of the wilderness trip phase of the program, generating approximately 44,775 wfd in 1997, and 51,590 wfd in 1998 for the five programs. If we extrapolate the data as if they represented the 38 known programs, a suggested total of 11,600 clients were served in 1997 and 12,005 in 1998, generating 340,290 wfd in 1997 and 392,000 wfd in 1998 respectively, and generating annual gross revenues of \$128 million dollars in 1997 and \$143 million dollars in 1998. Until data from more detailed studies of the industry are available, we believe these estimates offer the clearest picture of the current status of the wilderness therapy industry (note how close estimates of clients and user days are to those made by Cooley (1998), an experienced leader in the industry).

Table 1. Statistics on five wilderness therapy programs*.

Program Name	Program Length	Number of Trips		Clients Served		Wilderness Field Days	
		1997	1998	1997	1998	1997	1998
Anasazi	56 days	27	27	187	200	10,472	11,200
Ascent	42 days	42	43	329	375	3,472	5,250
Aspen Achieve Academy	53 days	75	75	300	350	15,900	18,550
Catherine Freer	21 days	43	45	256	300	5,376	6,300
SUWS	21 days	72	75	455	490	9,555	10,290
Totals	(Average) 38 days	259	265	1,527	1,715	44,775	51,590

*From knowledgeable estimates by executives in each program in telephone interviews by Keith Russell, October 1998.

Given reasonable support from federal land management, medical insurance, social service agencies, and juvenile authorities, wilderness therapy should continue to grow as a positive intervention and treatment for adolescents with problem behaviors, and who may also be struggling with drug and alcohol addictions. While wilderness therapy is expensive, our data indicate that clients at some programs are receiving co-pay medical insurance assistance ranging from 0-60% depending on the program (see Table 2).

Table 2. Cost & placement results of five wilderness therapy programs*.

Program	Total Staff	Wilderness Treatment Costs	Percent Clients with Insurance Co-Pay	Percent Aftercare Placement
Anasazi	60	\$15,000 (\$270/day)	60% All or Partial 40% Private	90% Return Home 10% Aftercare Placement
Ascent	80	\$18,000 (\$440/day)	30% All or Partial 70% Private	20% Return Home 80% Aftercare Placement
Aspen Achieve. Academy	65	\$15,700 (\$300/day)	40% All or Partial 60% Private	50% Return Home 50% Aftercare Placement
Catherine Freer	40	\$5,850 (\$280/day)	65% All or Partial 35% Private	65% Return Home 35% Aftercare Placement
SUWS	58	\$6,750 (\$352/day)	0% All or Partial 100% Private	40% Return Home 60% Aftercare Placement

Wilderness Therapy Clients

A typical participant in a wilderness therapy program is described in the literature as a juvenile delinquent, a sociopathic character or an anti-social personality (McCord, 1995). Another profile from the literature describes wilderness therapy clients as "males between 13 and 15 years of age with a history of abuse and neglect, a history of theft, truancy, drug use, arson, vandalism, assault, promiscuity; intensely physical behavior characterized by impulsivity, recklessness, destructiveness, and aggression; relatively weak verbal skills; and interpersonal relationships based not on mutual trust but on manipulation and exploitation (Marx, 1988).

McCord (1995) surveyed clients over a two-year period using the MMPI personality scale and identified three types of participants with the following characteristics: (1) *The Nonconformist*: Likely to be chronically angry and resentful. Tends to be passive aggressive but may act out on occasion. Immature and narcissistic, defies convention through dress and behavior. (2) *The Party Animal*: Often in trouble with parents and other authorities because of stereotypical delinquent behaviors: drug and alcohol abuse, sneaking out at night, early sexual experimentation. Energetic and highly extroverted. (3) *Emotionally Disturbed*: The group feeling the most subjective distress, including feelings of depression and despair, confusion, and dismay. Their behavior tends to be erratic, unpredictable, and highly impulsive. Poor achievement and substance abuse is common (p. 55).

According to interviews with key staff in programs we are studying, typical clientele are adolescents, up to 70% male with drug and alcohol related diagnoses, and range from 14 to 18 years of age. Based on social history profiles and initial assessment by clinical staff, diagnoses are made using the DSM-IV manual of mental disorders to determine medical insurance eligibility and to help guide development of a treatment plan. Typical diagnoses include drug and alcohol abuse, anti-social behavior, conduct disorder, and depression. Contrary to what one might expect given the substantial cost of treatment, many clients come from middle-class backgrounds, with parents sometimes re-financing their homes or taking out loans to pay for treatment (Cooley, 1998).

Wilderness Therapy Phases and Primary Goals

Wilderness therapy is being increasingly used as a last resort intervention for adolescents who are in serious trouble due to alcohol and drug use, sexual promiscuity, trouble with the law,

and intense parental conflict. Phone calls of inquiry taken by admissions personnel commonly deal with parents who are in crisis, and in many cases, literally fear for the adolescent's life. As a director of one program put it, "in many cases, we are literally reaching under water and grabbing the hand of a drowning victim" (Paul Smith, personal communication, August 1998) Thus, a high proportion of wilderness therapy admissions occur with a great sense of urgency to intervene before the adolescent self destructs or moves into more serious problem behaviors as an adult.

Three phases of wilderness therapy are also primary goals for treatment and are defined as follows: 1) a cleansing 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) transition and aftercare phase. Each of these program goals are reviewed in the following.

1. Cleansing Phase. The initial goal of wilderness treatment is to rid clients of chemical dependencies by removing them from the destructive environments that perpetuated their addictions. The cleansing is accomplished with a minimal but healthy diet, intense physical exercise, and the teaching of basic survival and self care skills. The clients are also removed from the trappings of their former environment including numerous distractions of adolescent culture. The cleansing process is in itself therapeutic and prepares the client for more in-depth work later in the program.

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 they choose not to set up a tarp and it rains, the client gets wet, and there is no one to blame but themselves. If they do not want to make a fire or do not learn to start fires with a bow drill or flint, they will eat raw oats 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 dynamics of the clients' wilderness therapy experience to their lives.

There is strong evidence that social skill deficiencies are

related to disruptive and anti-social behavior, which limits abilities to form close personal relationships (Mathur & Rutherford, 1994). Thus, delinquent behavior may be a manifestation of social skill deficits which can be changed by teaching appropriate social behaviors. Wilderness therapy takes place in very intense social units (usually six clients and three leaders) with wilderness 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 in a neutral and safe environment. Thus, wilderness therapy provides hands on teaching in personal and social responsibility, with modeling and practice of appropriate social skills and cooperative behaviors, all reinforced by logical and natural consequences from the wilderness conditions.

3. Transition and Aftercare Phase. Upon completion of the wilderness therapy program, clients must implement their newly learned self care and personal and social responsibility to either home or a structured aftercare placement. Preparation for this challenge is facilitated by therapists through intense one-on-one and group sessions with peers. If a goal for a client was to "communicate better with parents," the therapist helps them 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 weekly visits to Alcoholic Anonymous (AA) meetings, and reinforced by regular outpatient counseling sessions. In the five programs we studied (see Table 2), up to 80% of the clients may go to post wilderness therapy placement in a structured aftercare setting, such as a residential mental health facility, drug and alcohol treatment center or an emotional growth boarding school. Follow-up outpatient counseling is recommended for virtually all clients. Thus, while providing for effective intervention, diagnosis and initial treatment, wilderness therapy is not a stand alone cure.

Wilderness Therapy Theoretical Foundations and Applications

Wilderness treatment is generally guided by a "family systems" perspective (Satir, 1967), which incorporates into treatment the family or social system from which the client came. This is a departure from the widely known "hoods-in-the-woods" programs that view the problem behavior of adolescents as the main focus of therapy. Many wilderness therapy programs will not accept a client unless parents state they are willing to be actively involved in the therapeutic process. This means that the parents themselves will be involved in outside therapy while the client is participating in the wilderness program,

trying to understand how their interactions and relationship with their child relate to problem behaviors.

Thus, most wilderness therapy programs recognize that parents contribute to adolescents dysfunctional behavior, and that without parent counseling, the positive outcomes of treatment could quickly fade if the client returns to a dysfunctional home environment. Wilderness therapy trips are designed to simulate family living, as all clients learn and practice self care and personal responsibility, effective peer interaction, and are led by wilderness guides and therapists modeling effective adult communication and parenting skills.

Application of the wilderness therapy process is decisively shaped by the length of the program, resulting in two distinct logistical arrangements that we describe as: 1) contained wilderness therapy systems; and 2) continuous flow wilderness therapy systems, referring to whether or not clients are rotated in and out of programs in process. Each of these systems will be reviewed and followed by a description of a typical wilderness therapy program process.

Applications in Contained and Continuous Flow Wilderness Therapy Systems

Contained wilderness therapy programs are usually up to three-weeks long and operate in a wilderness expedition model in which clients and leaders stay together for the duration of the trip. The group is self sufficient in their wilderness living and hiking , and are staffed with a Masters level, licensed therapist, a wilderness guide and an assistant wilderness guide. Ratios of one staff to two clients is becoming an accepted industry standard.

Depending on the program and the process, a medical diagnosis is made by a supervising therapist for each client and labeled according to the DSM-IV criteria. Staff are briefed as to the social history, behavioral, and clinical issues of each client, where ideas and concerns are shared with staff members about desirable intervention strategies, and an initial treatment plan is developed with goals and outcomes for each client. Then the group, led by the wilderness guide, licensed therapist, and assistant guide, leave on a wilderness trip for up to three weeks in length.

Continuous Flow Wilderness Therapy Systems

Continuous flow programs are longer, up to 8 weeks in length, and have leaders rotating in and out of the field--eight days on and six days off is a typical rotation for staff. Clients are continually entering and leaving the program as new "intakes"

are brought to existing treatment groups to replace "graduates," who are leaving treatment after having met their goals. When new clients arrive they go through an intake process of physicals, discussions with the clinical staff, are outfitted with equipment and driven to the trailhead to meet with an on-going treatment group. The typical in-take will admit up to eight students at a time and spread the clients out over two or three on-going groups in the field.

The groups will welcome new members and introduce themselves using an established format, and discuss any issues of importance about how the group operates. Those clients who are further along in their treatment assume roles of responsibility and are looked up to by the new clients. The peer role modeling and mentoring process begins almost immediately, as staff take a back seat to the more experienced clients who facilitate many of the lessons that need to be taught for the new clients to survive in this harsh and new environment.

Wilderness guides, not licensed therapists, are with the clients in the field on a daily basis. Therapists are assigned to a group of clients and visit them weekly, going to the field during group lay-over days and conducting one-to-two hour sessions with each client discussing issues, processing their homework for the week, or relaying information from parents. After the session is over the therapist will give the client an assignment to complete for the week, such as bringing up a certain issue in group and observing the reactions of the other group members. A structured group therapy session is then facilitated, often guided by a metaphoric lesson or a psycho-educational topic for the week.

Typical Wilderness Therapy Process

After the initial shock of the dramatic change in environment, clients begin to display behavior patterns consistent with their social history profiles. Staff routinely meet and discuss treatment strategies, such as increased responsibility for a client who lacks self esteem, or suggesting that a client who is having trouble expressing themselves bring up personal issues in group sessions.

Individual one-on-one counseling sessions are coupled with intermittent group counseling throughout the trip. The individual counseling sessions can take place on the trail, in a client's shelter area, or while whittling sticks when making a bow-drill fire set. This neutral environment and unorthodox approach eliminates many of the barriers associated with traditional therapeutic counseling, such as intimidation by the therapist or the stigma of going to a "hospital" because they are

"sick." In a wilderness setting the therapist can be seen as a person and not as a threatening authority figure. Therapists work on establishing rapport with the client, earning their trust and doing initial assessment of the underlying issues. Lessons learned in these impromptu "sessions" are relayed to other field staff and documented in daily and weekly treatment notes.

Groups sessions are held at least daily and range from being loosely organized, where the clients direct the flow of discussion, or extremely structured, where a reading will be presented and the group will focus on it's direct meaning. The goal of the group sessions is to provide clients an opportunity to share feelings and emotions that have begun to emerge in the course of treatment. Groups play a valuable role in allowing students a safe and controlled environment to practice some of the new interpersonal skills they are learning and hear the stories of other clients. The feeling of group cohesion that develops through these candid interactions is of major therapeutic value for clients, virtually all of whom feel alienated from well adjusted peers due to their dysfunctional behavior and problems.

As the trip continues, calls will be made via cell phone or radio back to base camp to communicate with therapeutic staff working directly with the client's parents. Needless to say, parents are experiencing considerable anxiety, guilt and regret that their children are being put through this experience and often blame themselves for their children's problems. Parents may also be in counseling and beginning to realize that they may be part of the problem and also need to change. The field staff encourage the adolescents to write their parents and express their feelings about the past and describe changes they want to make at home to help foster a better family environment. Parents may need help from therapists in understanding the sometimes negative and blaming tone of these letters. Thus, the parents become part of and invested in the therapeutic process and are kept aware of the progress their child is making.

As the wilderness therapy program unfolds, decisions are made as to the necessary follow-up care for the client and an aftercare treatment strategy is developed. In some cases, three-week programs are used primarily for diagnosis and assessment, cleansing and stabilizing the client to prepare them for placement into an aftercare facility such as a boarding school, drug and alcohol treatment center or residential psychiatric facility (see Table 2). Depending on the seriousness of the client's issues, eight-week programs may also serve this purpose, although more clients return to families than go on to aftercare in the eight-week programs for which we have data (see Table 2).

A recommendation for aftercare treatment can be shocking and unexpected for the client, for in many cases they believed that all they had to do was complete the program and they would be allowed to go home and see their friends. The therapists and wilderness guides work with the client in intense one-on-one sessions to help them see and accept that the recommended aftercare is the best move for them, given the circumstances of their past behavior. Experience confirms that in most cases, unless assessments and recommendation growing out of wilderness therapy are followed, clients may quickly revert to prior behavioral patterns of resistance.

As the wilderness program draws to a conclusion, the focus is on generalizing the lessons learned and preparing clients for their next step in the recommended continuum of care. Clients are busy working on journal assignments, preparing word-for-word what they want to say to their parents, and completing necessary tasks such as educational curriculum or a primitive skill checklist, to assure that they will graduate on time. After two to several weeks in the field, living and traveling in the wilderness is as second nature to clients as grabbing the remote control and turning on the television. The focus is now on their personal issues and how they plan to tell their parents, therapists, and/or the aftercare facility that they have indeed learned something, want to change for the better, and have an action plan to do so while staying clean and sober from drugs and alcohol. If the program has worked the meeting with parents is emotional and frightening and the first step in the right direction to making better choices and improving relationships with family.

Implications for Wilderness Management

Though the value of wilderness to mental health has been extolled for decades, mental health institutions and medical insurance companies are just now beginning to embrace wilderness therapy as an effective intervention and treatment for adolescents with problem behaviors. Parents by the thousands, desperate to save their adolescents from self-destructive behavior and drugs and alcohol, continue to turn to wilderness therapy. Our data suggests that these trends and pressures are leading to significant wilderness use, 392,000 user days or more per year by 38 known wilderness therapy programs, in an enterprise collectively generating at least \$143 million dollars annually. We see at least three primary wilderness management implications from these trends.

Wilderness Therapy is a Growing Wilderness Use

Our data indicate a substantial and growing amount of wilderness use from at least 38 wilderness therapy programs,

which is but a small part of the much larger wilderness experience program (WEP) industry that includes 500 WEPs. Wilderness managers recognize these increases; Gager and others (1998) found in a national survey that virtually all wilderness managers perceived increases of WEP use in areas they administered.

A key issue is whether or not WEP use, including wilderness therapy, depends on designated wilderness to meet their goals. Gager and others (1998) found that a majority of wilderness managers believe that wilderness therapy program activities are not wilderness dependent, but two recent surveys of WEPs revealed that more than half the respondents say they operate in designated wilderness (Friese, 1996) and do regard their programs as depending on wilderness (Dawson and others 1999). Managers fears of WEPs identified by Gager (1998) include establishing new trails, overuse in areas already saturated, site impacts, large group size, lack of wilderness stewardship skills and knowledge, and conflicts with other users (p. 35).

Demand for wilderness use may soon overwhelm the capacities established by managers and raises difficult questions. Can we, or should we lower standards for naturalness and solitude? Can enough new areas be brought into the wilderness system to expand capacity? Is the use of wilderness for personal growth and healing of young people more important from a social and economic standpoint than commercial recreation use, or casual use by the public?

Wilderness Therapy Has Unique Impacts on Wilderness

The use of primitive skills as a wilderness therapy tool may expand normal impacts of wilderness use, and in some places adjustments may be needed. For example, if ten clients make two fires a day for 36 days it would equal 720 fires throughout the course of one program! Already aware of these potential impacts, many programs have begun self regulating the use of fire, striving to maintain it's therapeutic value while conserving the resource. For example, the Anasazi program which often operates on the Tonto National Forest in Arizona, now uses primitive methods to ignite a coal, which is then used to light propane stoves for cooking. This reduces fire scars, depletion of fuel wood, and other impacts. Catherine Freer Wilderness Therapy, which often operates in the Kalmiopsis Wilderness Area in Oregon, also uses primitive fire making in structured lessons in pre-established areas, but cooks over gas stoves to lessen their impacts.

Strengthen Communication and Cooperation

Enhanced communication and cooperation is needed between agency managers and wilderness therapy leaders to coordinate use and address impacts with new strategies. For example, work projects might be completed by wilderness therapy programs with therapeutic effects for participants, crowded areas can be avoided during peak times, and strict leave-no-trace principles can be practiced.

Better communication would also help close the gap in understanding between what are necessary and desirable practices for the benefit of wilderness. This a concern for wilderness therapy programs since they need wilderness to operate, as well as for wilderness managers who are mandated to protect the ecological integrity of wilderness. A strengthened relationship would help deal with misperceptions about wilderness therapy, minimize impacts on wilderness and maximize benefits from wilderness therapy as a positive intervention in the lives of troubled adolescents.

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