How Wilderness Therapy Works: An Examination of the Wilderness Therapy Process to Treat Adolescents with Behavioral Problems and Addictions

By

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Abstract

This paper summarizes findings from a detailed study of the processes employed by four leading wilderness therapy programs focusing on how wilderness therapy works, the kinds of behavioral problems to which it is commonly applied, expected outcomes and the role of wilderness in the intervention and treatment process (Russell, 1999). Wilderness therapy is an emerging intervention to help adolescents overcome emotional, adjustment, addiction, and psychological problems. Thirty-eight known programs serve an estimated 12,000 clients annually, generating 350,000 visitor days of wilderness use and 143 million dollars annually.

A comprehensive definition of wilderness therapy is presented from a review of literature. An applied model of wilderness therapy is developed based on interviews with key staff who were asked to describe the theoretical basis of their program, how the process works, types of clients for whom the intervention is appropriate, and what outcomes are expected. Seven days were spent in the field with each of the four programs observing the wilderness therapy process expanding and validating these data.

A comprehensive model of wilderness therapy was then constructed from cross-case analysis of these data based on factors found in at least three of the four programs. A common theoretical basis of wilderness therapy emerged, containing an integration of wilderness programming theory and a clinically-based, eclectic, therapeutic model guided by a family systems approach. The wilderness therapy process is guided by a cleansing phase, a personal and social responsibility phase, and a transition and aftercare phase. Common anticipated outcomes included client strengthened self-concept by clients and new skills and knowledge leading to an understanding of the consequences of their behavior. These realizations typically lead clients to desire a better relationship with parents, to continue to develop emotionally, to be more appreciative and to see personal problems in a different light. The emergence of wilderness therapy demonstrates the value of wilderness as a healing source for adolescents who are not being reached by traditional therapeutic techniques.

Introduction

This paper summarizes findings from a detailed study of the processes employed by four leading wilderness therapy programs focusing on how wilderness therapy works, the kinds of behavioral problems to which it is commonly applied, expected outcomes and the role of wilderness in the intervention and treatment process (Russell, 1999).

Wilderness therapy is an emerging treatment intervention in mental health practice to help adolescents overcome emotional, adjustment, addiction, and psychological problems. Wilderness therapy is often confused with the broader field of wilderness experience programs (WEP) of which it is a part. WEPs are defined as "organizations that conduct outdoor programs in wilderness or comparable lands for purposes of personal growth, therapy, rehabilitation, education or leadership-organizational development" (Friese, Hendee, & Kinziger, 1998, p. 40). Wilderness therapy features therapeutic assessment, intervention and treatment of problem behaviors, and assessment of outcomes. It involves immersion in an unfamiliar environment, group-living with peers, individual and group therapy sessions, educational curricula and application of primitive skills such as fire-making and backcountry travel. These processes are all designed to address problem behaviors by fostering personal and social responsibility and emotional growth of clients. Young people aged 12-17 are the most frequent clients.

Adolescents in the United States are more at-risk in recent years due to the influence of profound cultural change, including unstructured home environments in which both parents are working, increase in the number of single-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. 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 often are 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 efficacy when compared with other mental health services.

But despite claims of efficacy, little is known about **how** the wilderness therapy process works to promote changes in problem behaviors of adolescents. Mulvey, Arthur and Repucci (1993) conclude in their review of research on wilderness therapy efficacy that the "nature, extent, and conditions under which positive outcomes occur is unknown" (p. 154). Parents, juvenile authorities, and school officials looking for alternative therapeutic approaches continue to turn to wilderness therapy as a last resort for adolescents who have tried various traditional counseling approaches with little or no success. Research is needed to answer questions being addressed to the metal health profession, insurance companies, and national accreditation agencies *What is involved in wilderness therapy, and how does it work?* To address these questions, this study examined the wilderness therapy process focusing on what it is, how and under what conditions it works, for whom it is most effective, and the role of wilderness in the process.

Current Status of Wilderness Therapy Industry

Cooley (1998), based on his operating knowledge of the industry, estimated that approximately 10,000 adolescents were being served annually in wilderness treatment, generating 330,000 wilderness user days and 60 million dollars in annual revenue. We drew on recent surveys of the wilderness experience program industry to test and elaborate Cooley's estimates with data (Russell and Hendee, 1999).

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 expedition-based wilderness therapy were identified in this survey. Subsequently, Carpenter (1998) identified six additional wilderness therapy programs beyond these, and Crisp (1996) identified two more. Thus, a minimum of 38 wilderness therapy programs have been identified in the US. We interviewed key executives from five representative wilderness therapy programs to generate a data-based estimate of the size of the industry (Russell and Hendee, 1998). These data are presented in Table 1.

Table 1. Program length, number of trips, clients served, and wilderness field days, percent of clients receiving insurance co-pay, and percent aftercare placement for five wilderness therapy programs.

Program Name	Program Length	Wilderness Treatment Cost	Total Staff	Number Of Trips		Clients Served		Wilderness Field Days		Percent Clients Receive Insurance Assistance	Percent Return Home Upon Completion of Program
YEAR				97	98	97	98	97	98		
Anasazi	56 days	$15,000 ($270/day)	60	27	27	187	200	10,472	11,200	60% Receive Assistance	90% Return Home 10% Aftercare Placement
Ascent	42 days	$18,500 ($440/day)	80	42	43	329	375	3,472	5,250	30% Receive Assistance	20% Return Home 80% Aftercare Placement
Aspen Achievement Academy	53 days	$15,700 ($300/day)	65	75	75	300	350	15,900	18,550	40% Receive Assistance	50% Return Home 50% Aftercare Placement
Catherine Freer	21 days	$5,850 ($280/day)	40	43	45	256	300	5,376	6,300	65% Receive Assistance	65% Return Home 35% Aftercare Placement
SUWS	21 days	$6,750 ($320/day)	58	72	75	455	490	9,555	10,290	0% Receive Assistance	40% Return Home 60% Aftercare Placement
Totals and Average	38 days (Ave.)	$12,360 ($325/day)	60 (Ave.)	259	265	1,527	1,715	44,775	51,590	40% (Ave.)	53% Return Home 47% Aftercare Placement (Ave.)

Table 1 illustrates that all five programs increased the number of clients served from 1997 to 1998, with three of the five increasing the number of trips offered. Wilderness field days (wfd) were calculated by multiplying number of clients served by the length of the wilderness trip phase of the program, generating a total of 44,775 wfd in 1997, and 51, 590 wfd in 1998 for the five programs. If we extrapolate these 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. This generated annual gross revenues of $128 million dollars in 1997 and $143 million dollars in 1998.

While wilderness therapy is expensive (averaging $325 per day in the five programs surveyed), our data indicate that an average of 40 percent of clients receive financial assistance from medical insurance, and more than that in some programs. As wilderness therapy programs strive for recognition from insurance companies by receiving accreditation from national agencies such as the Council on Accreditation (COA), the trend towards co-pay assistance is likely to continue making wilderness therapy more accessible for families with limited incomes. Given reasonable support from federal land management, medical insurance, social service agencies, school and juvenile authorities, wilderness therapy should continue to expand as a viable treatment modality for adolescents with problem behaviors who may also be struggling with drug and alcohol addiction.

Despite a growing number of programs operating in the United States under the guise of "wilderness therapy," a common and accepted definition is lacking. The majority of research studies are not specific enough in describing how presenting problems are assessed by each program and how therapeutic approaches relate to target outcomes, making conclusions and findings difficult to compare. Thus we focused this investigation on the theoretical foundations of wilderness therapy in four leading wilderness therapy programs, and how their wilderness therapy process relates to outcomes, in order to better understand wilderness therapy as an intervention and treatment for adolescents with histories of problem behaviors.

Research Methods

Four leading wilderness therapy programs belonging to the Outdoor Behavior Health Care Industry Council (OBHIC) served as case studies in the exploration of theory, process,

and reported outcomes associated with wilderness therapy treatment. They are: Anasazi Foundation (Anasazi) headquartered in Mesa, Arizona; Aspen Achievement Academy (Aspen) in Loa, Utah; Catherine Freer Wilderness Therapy (Freer) in Albany, Oregon; and SUWS Adolescent Programs (SUWS) in Shoshone, Idaho.

A constructivist paradigm framed the study and guided the research. The researcher spent time at four wilderness therapy programs as a participant-as-observer observing the wilderness therapy process in context. In addition, structured interviews were conducted with staff, clients, and parents. Subjectivity of the researcher was an invaluable tool in gaining confidence of research subjects, and in the qualitative tradition, was embraced. Researching the four wilderness therapy programs, or "cases," in context called for a multi-site case study design that: (1) allowed an investigation of the contemporary phenomena within its real life context; (2) the boundaries between phenomena and context are not clearly defined; and (3) allowed for multiple sources of evidence to be used (Yin, 1993).

Key staff at each program were interviewed including: (1) the program director, (2) a clinical supervisor, (3) a supervisor of admissions, and (4) an experienced lead wilderness guide or field-counselor. Each respondent was asked a series of questions related to: (1) the philosophical foundations and therapeutic benchmarks of wilderness therapy, (2) the role of wilderness in the process, (3) how wilderness therapy works, (4) types of clients for whom wilderness therapy works well, (5) and anticipated outcomes of the wilderness therapy process. A focus group was also conducted at each program to allow staff the opportunity to review their interview responses, hear how other staff responded, and to discuss and clarify ideas and different viewpoints.

A week was spent in the field with each program observing client case studies in the wilderness therapy treatment process and experiencing the same process in which the clients were immersed. The same pack, food, clothing, language, and rules to which students were expected to abide were adhered to by the researcher to establish rapport with the clients and leaders. Notes were taken as to the environmental setting, group dynamics and situations, client-staff interactions, environmental behaviors, and therapeutic tools and strategies used by staff to help clients address the issues which brought them to the program.

Data were stored and analyzed using the theory-building program NUD•IST (non-numerical unstructured data indexing, searching, and theorizing (Richards & Richards,

1994). This program allows for: (1) the storage and organization of document files, (2) a search for themes, (3) crossing and matching themes, (4) diagramming, (5) the creation of templates, and (6) analyzing and reporting (Creswell, 1998). Individual wilderness therapy program models were developed based on open and pattern coding techniques using an inductive approach which was performed on all data sources (Glaser, 1992; Miles & Huberman, 1994).

Results: Defining Wilderness Therapy

By synthesizing definitions in the literature and drawing upon our research, we define wilderness therapy as follows. There are two types of wilderness therapy programs: expedition and base camp (Russell, 1999; Russell and Hendee, 1999). Expedition programs remain in the field for the duration of the treatment process, while base camp programs have a structured base camp, leave on an expedition for a period of time and return to the base camp for follow-up activities. Expedition wilderness therapy programs are further organized into "contained programs" and "continuous flow" programs. Contained programs are shorter, up to three-weeks in length, in which clients and the treatment team stay together for the duration of the trip. Continuous flow programs are longer, up to eight-weeks in length, and have leaders and therapists rotating in and out of the field (eight days on and six days off is a typical rotation for field staff).
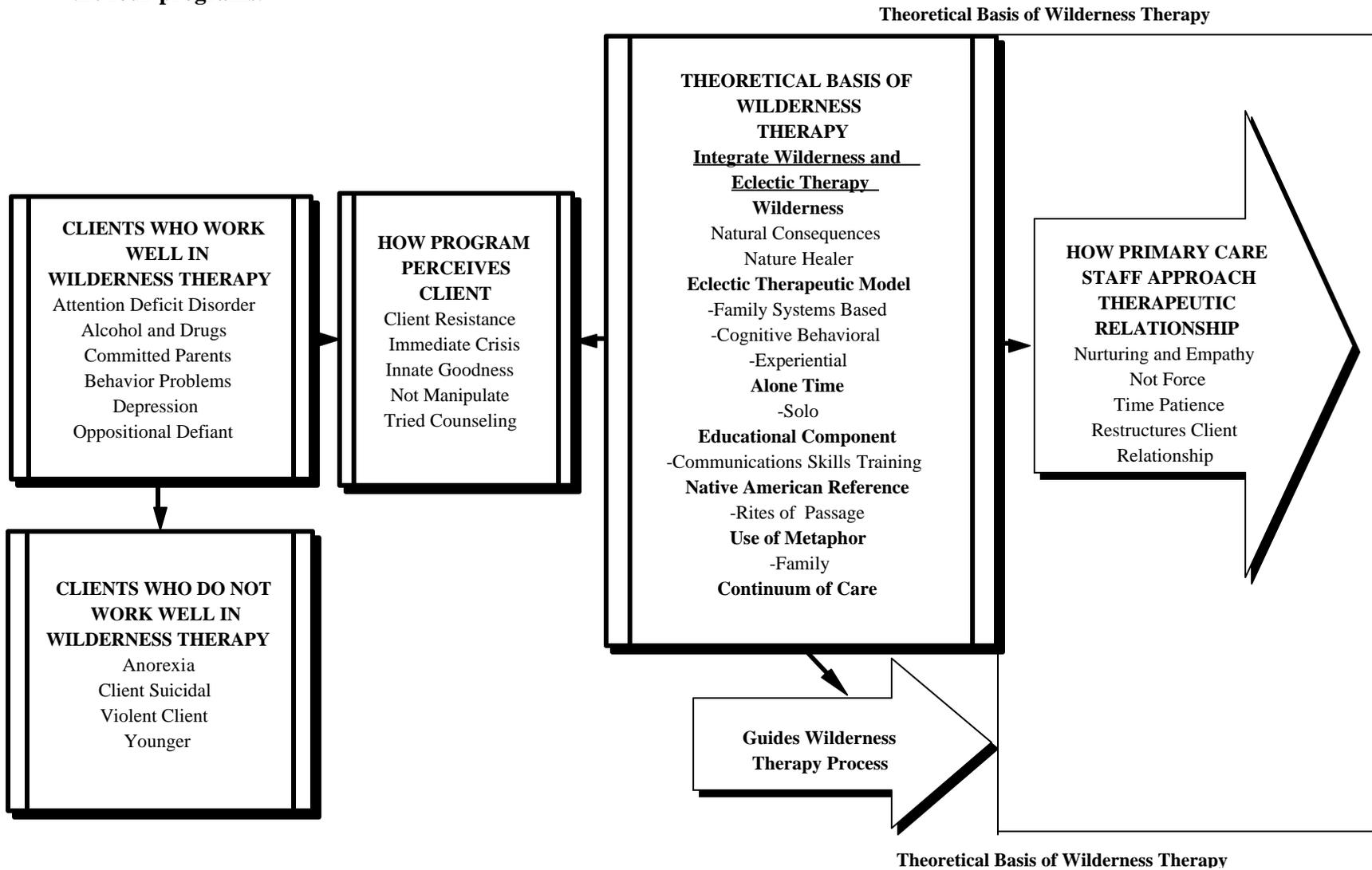
Results: A Model of Wilderness Therapy

A model of wilderness therapy was constructed based on descriptive and pattern and codes which emerged from the analysis of interview responses made by key staff at each program addressing the following aspects of wilderness therapy: (1) Theoretical Foundation; (2) Role of Wilderness, (3) Process and Practice of Wilderness Therapy; and; (4) Common Reported Outcomes. Each pattern code was reviewed for similar descriptive codes across programs which captured consistent concepts, ideas, and phenomena. For example, the pattern code *How Program Perceives Client* emerged from the analysis of a question asking staff to describe their theoretical basis of wilderness therapy. Within this pattern code, several descriptive codes were found to be similar across programs. For a descriptive code to be included in the model it had to appear in at least three of the four programs. It is important to note that this model was based on four programs included in this study. The

model is not assumed to be representative of the wilderness therapy industry as a whole. The model will be used in future research to identify and validate core elements of theory, process and reported outcomes of wilderness therapy.

1. Theoretical Foundation of Wilderness Therapy

Figure 1 illustrates common pattern codes which comprise the theoretical foundation of wilderness therapy, which include: (A) *How Program Perceives Clients*, (B) *Program Theoretical Foundation*, and (C) *How Primary Caregiver Approaches Therapeutic Relationship*. Figure 1 is followed by a discussion and explanation of the descriptive and pattern codes across the four wilderness therapy programs, including common diagnoses perceived by staff as working or not working well in the wilderness therapy process.

Figure 1. Theoretical foundation of wilderness therapy based on pattern codes and common descriptive codes across at least three of the four programs.

CLIENTS WHO WORK WELL IN WILDERNESS THERAPY
Attention Deficit Disorder
Alcohol and Drugs
Committed Parents
Behavior Problems
Depression
Oppositional Defiant

CLIENTS WHO DO NOT WORK WELL IN WILDERNESS THERAPY
Anorexia
Client Suicidal
Violent Client
Younger

HOW PROGRAM PERCEIVES CLIENT
Client Resistance
Immediate Crisis
Innate Goodness
Not Manipulate
Tried Counseling

THEORETICAL BASIS OF WILDERNESS THERAPY
Integrate Wilderness and Eclectic Therapy
Wilderness
Natural Consequences
Nature Healer
Eclectic Therapeutic Model
-Family Systems Based
-Cognitive Behavioral
-Experiential
Alone Time
-Solo
Educational Component
-Communications Skills Training
Native American Reference
-Rites of Passage
Use of Metaphor
-Family
Continuum of Care

HOW PRIMARY CARE STAFF APPROACH THERAPEUTIC RELATIONSHIP
Nurturing and Empathy
Not Force
Time Patience
Restructures Client
Relationship

Guides Wilderness Therapy Process

    A. How Program Perceives Client--Staff at each program perceive clients entering treatment as being out of control and in immediate crisis. This can be due in part to problems with drugs and alcohol, depression, violent outbursts, trouble with the law, failing grades or getting kicked out of school. Moreover, it is not only the client who is in crisis, but the entire family. This is captured in the Immediate Crisis descriptive code by Freer, "They [parents] 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." Wilderness therapy staff initially work on the phone with distraught parents, trying to calm them down and determine whether wilderness therapy is what the potential client and family need.

    The typical client enters wilderness therapy frightened and angry, with a deeply rooted resistance to authority. Clients deem the intervention as being a punishment, and are angry with their parents. Staff expect such resistance and embrace it, letting the process work slowly and with patience over time. Clients are also perceived as being therapeutically savvy, having been in treatment prior to wilderness therapy. Thus, the process and approach needs to be different from traditional forms of therapy in which the client has become adept at manipulation. This idea relates to the Not Manipulate descriptive category whereby staff believe that clients are not able to manipulate the process due to factors such as natural consequences. Finally, staff recognize that clients have an innate goodness, and that for some reason they have lost their way and made some bad decisions in their lives. Wilderness therapy can be seen as a chance to change their problem behaviors, helping clients find their lost sense of goodness and get their lives back on track.

    B. Theoretical Foundation--While each of the programs had its own unique approach to wilderness therapy, there were several common variables comprising their theoretical foundations. Many of these common concepts are based on traditional wilderness programming ideas dating back to the 1960s in programs such as Outward Bound, but which are then integrated with an eclectic therapeutic model based on a family systems perspective with a cognitive behavioral treatment emphasis. This approach integrates the therapeutic factors of a wilderness experience with a nurturing

and intense therapeutic process which helps clients access feelings and emotions which have been suppressed by anger, drugs and alcohol, and depression.

Each program proposed that problem behavior of clients stems from the various environments from which they come, with the most powerful influence being the family. Because of this, the family is expected to be actively engaged in the treatment process while the client is in wilderness therapy. For example, Anasazi conducts a parent seminar that all parents are strongly encouraged to attend and the wilderness therapist works with the parents throughout the process. Aspen also conducts a seminar for parents, encourages them to be involved in counseling, and has a two-day graduation ceremony that parents attend. Freer uses family meetings at the beginning and end of the trek, and the clinical supervisor works directly with the family during the wilderness therapy process and also asks the family to commit to counseling. SUWS has a parent meeting at the end of the program to celebrate graduation and bases a major phase of the program on family dynamics, teaching clients to understand their role in the family. A variety of therapeutic models are drawn upon, including cognitive behavioral and experiential therapeutic foci. These are integrated with a family systems approach working with the entire family, the goal being restored family functioning.

Natural consequences experienced in wilderness living allow staff to step back from traditional positions of authority to which the client is accustomed. This dynamic dramatically restructures the client's relationship with the therapist and field staff and is captured in this quote by a SUWS staff member:

> In getting them out in the field and letting the wilderness environment impact them, this is what creates distress, so we don't have to do that, we don't have to apply a set of rules or expectations on them that make them uncomfortable. We don't have to get face to face with them, because the environment does that.

Interwoven in this integration of wilderness and therapy are references to Native American ceremony and ritual, including a rites of passage experience for clients. Wilderness therapy reflects rites of passage experiences practiced by cultures throughout the world, such as clients spending periods of time alone in wilderness solos to reflect on their lives and to receive insight and inspiration. Also included in the theoretical foundation were references to the use of metaphor, especially to represent the family, and

an educational component with a sophisticated curricula teaching communication skills and traditional educational and psycho-educational lessons.

     C. How Primary Care Giver Approaches Therapeutic Relationship--The primary care staff in wilderness therapy approach the therapeutic relationship in a nurturing, caring, and empathetic way. This finding is in contrast to public perceptions of wilderness therapy based on highly publicized client deaths in Utah in the early 1990s, in which wilderness therapy was depicted as a harsh "boot camp military approach," breaking clients down through forced marathon hikes and food deprivation, so as to then build them back up and "reshape them" (Krakauer, 1995). But in the organizations studied staff approached the therapeutic relationship with compassion and patience and let client work through their resistance and anger. They do not force change, instead allowing the environment to influence client response through natural consequences. If the client is not ready, staff step back and let other factors continue to work, such as time away from family and physical exercise, until the client is ready to consider change.

     Thus, in the wilderness therapy process, the therapist-client relationship is radically different from the previous experiences that most clients have had in therapy. As a staff person from Freer stated "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." In wilderness treatment, the stigma associated with therapy is reduced and the leaders and therapists are seen in a different light. They are seen as role models, not alien authority figures or the enemy, further enhancing the relationship and allowing room for discussion without the stigma of traditional therapeutic roles and environments.

2. Wilderness Therapy Process

     The wilderness therapy process is guided by phases defined as: 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) a transition and aftercare phase. Figure 2 illustrates the phases of wilderness therapy as

well as therapeutic tools applied during these phases and the role of the treatment team and follows with a discussion.

Figure 2. Pattern and descriptive codes illustrating a model of the wilderness therapy treatment process.

Guided by Theoretical Foundation of Wilderness Therapy
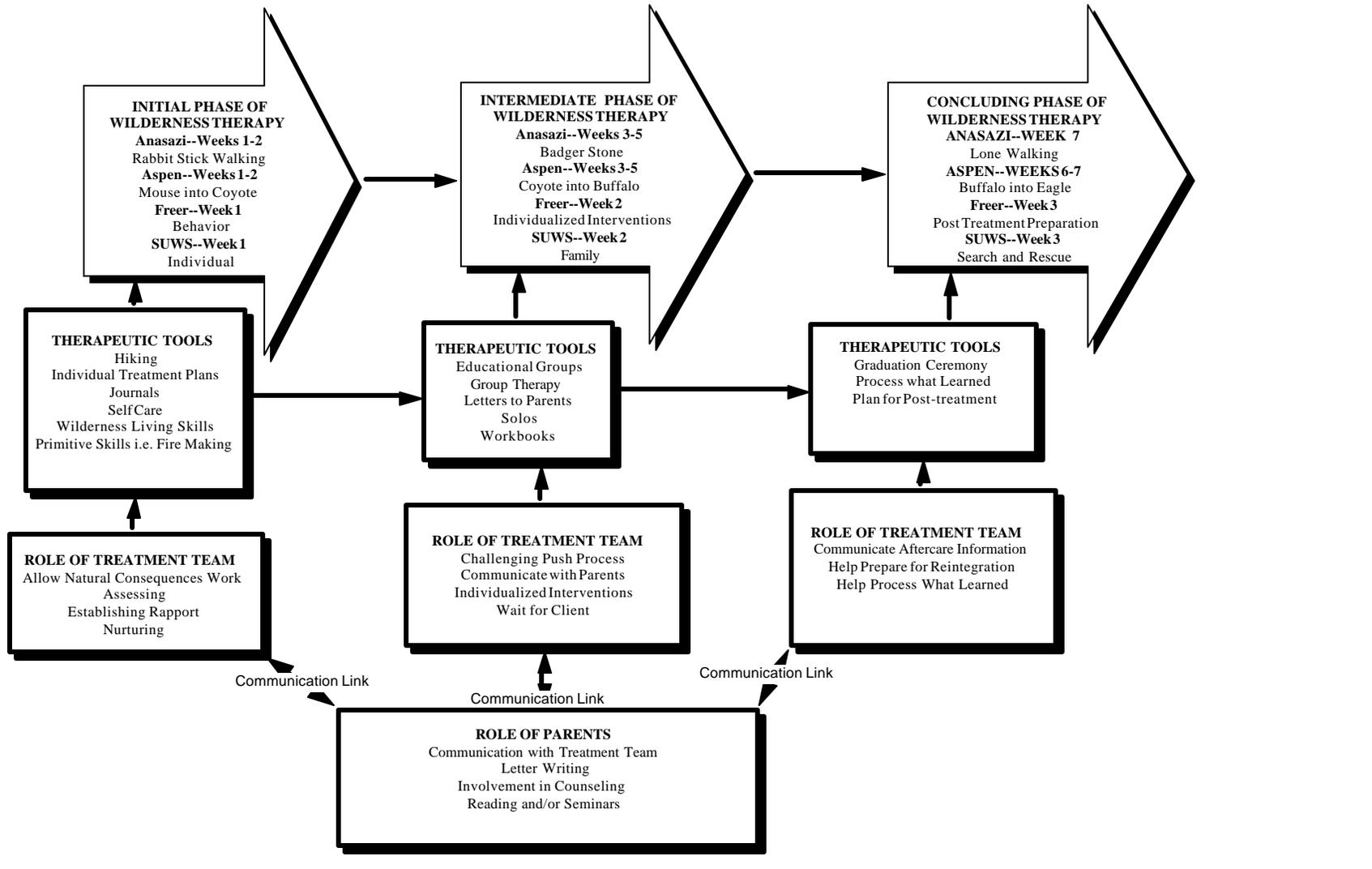
1. Cleansing Phase--The initial goal of wilderness treatment is to address client chemical dependencies by removing them from the destructive environments that perpetuated their addictions. The cleansing begins with a minimal but healthy diet, intense physical exercise, and the teaching of basic survival 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.

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 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 cause and effect dynamics of the clients' wilderness therapy experience 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. 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 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 the wilderness conditions.

      <u>3. Transition and Aftercare Phase</u>--The final weeks of the process involves clients preparing to return to the environments from which they came. Staff are working with them to process what they have learned and how to take these lessons home with them. Upon completion of the wilderness therapy program, clients must implement 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 weekly visits to Alcoholic Anonymous (AA) meetings, and reinforced by regular outpatient counseling sessions.

      In the five programs listed in Table 1, 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 an effective intervention, diagnosis, and initial treatment, wilderness therapy does not operate as a stand-alone cure.

3. The Role of Wilderness in Wilderness Therapy

      Therapeutic factors of wilderness at work are presented to clarify the role of wilderness in wilderness therapy. The wilderness environment, characterized by naturalness and solitude, can be seen as a therapeutic environment in and of itself. Staff were asked to explore how the wilderness experience alone was therapeutic. The question was asked: "What role does wilderness play in supporting the theoretical foundation of wilderness therapy as practiced by [program name]?" The question asked *why wilderness?,* or, in other words, could wilderness therapy be done in natural areas which are not wilderness, such as a state park or cabin retreat? The therapeutic factors of wilderness appeared in common descriptive codes across all programs in their description of how wilderness conditions of naturalness and solitude supported their theoretical foundation of wilderness therapy (Figure 3).

Figure 3. Coded responses to the question: What wilderness conditions support the theoretical foundation of wilderness therapy?

Therapeutic Factors of Wilderness

Descriptive Code	Definition	Examples of Coded Response
Appreciation	Client learns a sense of appreciation as a wilderness condition which supports the theoretical foundation of wilderness therapy	So the wilderness does a lot of things. I think first off, right up front, is that it teaches an appreciation from where things come from and what you have to give up to get what we get. There's an old saying that says, one half of knowing what you want in life is knowing what you must give up to get it. In the wilderness, the wilderness just does that.(Aspen)
Cleansing Health	Wilderness cleanses the client and is a healthy environment as a wilderness condition which supports the theoretical foundation of wilderness therapy	It just seems to be a healthier environment, just sort of by design, and the more I sort of read and hear about, oh sanitariums that treat people tuberculosis, even hospitals that set up tents in New York City, just putting the tents made a difference. That has something to do with it.(Aspen)
Out of Familiar Culture	Absence of familiar culture in wilderness supports the theoretical foundation of wilderness therapy program	So the things that seem so important in their life, what they look like, who their friends are, all those kind of normal developmental things for adolescents, suddenly they're thrust into a situation where those are completely unimportant.(Freer)
Reduces Distractions	Wilderness conditions reduce distractions which supports the theoretical foundation of wilderness therapy	There's also the advantages I think of, in a lot of the treatment centers there's still distractions, and in the wilderness, that gets cut down.. (Freer)
Simple Primitive Lifestyle	Wilderness conditions facilitate living more simply reflecting a primitive lifestyle which supports the theoretical foundation of wilderness therapy	I mentioned a little bit about the primitive lifestyle they lead while they are out there. I don't know if I can say a whole lot about this, but there is something more therapeutic about living in a primitive way, and it really twists your perspective on things. You're connected with how things used to be done. And it's not something that can be quantified, you can discuss it at length, but unless you have experienced it, have lived that way, it's very hard for you to grasp it.(Anasazi)
Vast Open	Wilderness conditions are vast and open which supports the theoretical foundation of wilderness therapy	And to me that's what makes it powerful because there isn't nothing out here but you. You got to face you. It's an area that grows on you slowly. If you go further west they get bigger but we're not talking huge and there's nothing but sagebrush country. There's only one place that I know that even has cactus, a small area of prickly pears. But in general there ain't a whole, and all you have is you out there.(SUWS)
Vulnerable Humbling	Wilderness conditions create a sense of vulnerability which is humbling which supports the theoretical foundation of wilderness therapy	And so I think it is very empowering for their self-esteem and yet humbling at the same time, that you know, when you're walking between these towering cliffs, you realize that you're not the center of the universe anymore. Obviously a lot of the kids, especially at this developmental stage, are very egocentric and I think this gives them a powerful dose of reality that they're not the center of the universe (Aspen)

Descriptive codes of wilderness conditions in wilderness therapy act on the client to different degrees as the wilderness therapy process unfolds and we describe them as representing the three phases described earlier: "cleansing," "personal and social responsibility," and "transition and aftercare." These three phases help account for differences in program length (Freer and SUWS three weeks, and Anasazi and Aspen eight weeks)--each phase is present in each program and is merely extended in length for the longer programs.

Cleansing Phase (Cleansing-Humbling)--In the initial cleansing phase of wilderness therapy, the codes Out of Familiar Culture, Vulnerable Humbling, and Vast Open are reasoned to effect the client intensely. Because many clients come to wilderness therapy unwillingly, they have not been prepared for the experience. They are suddenly dropped in remote backcountry with very few possessions. Their wilderness living skills are limited, creating an acute feeling of vulnerability, compounded by the daunting realization that the usual comforts of home are nowhere to be found. Being removed from their immediate culture, dropped off in a desolate remote wilderness area, and being asked to hike and live in the desert for an unspecified period of time is a powerful experience for an adolescent. Because of this, these wilderness therapeutic factors are reasoned to be more powerful in the initial stages of wilderness therapy.

Personal and Social Responsibility Phase--In this phase of wilderness therapy, descriptive codes reasoned to be working intensely on the client are Appreciation and Reduces Distractions. In the initial phases clients feel a sense of appreciation for the things they do not have in wilderness, such as water and food, but have not yet moved beyond this thinking. In the intermediate phase clients begin to feel a greater sense of appreciation for friends and family, not just cultural items. Likewise, the cultural scarcity of wilderness living offers fewer distractions allowing clients the opportunity to reflect on their lives, how they are feeling, and what is really important to them. These two factors (Appreciation and Reduces Distractions) strengthen as time goes on, and are manifested intensely in the intermediate and concluding phases of wilderness therapy.

Transition and Aftercare Phase--The common descriptive codes Cleansing Health and Simple Primitive Lifestyle are reasoned to peak in the concluding phase of wilderness

therapy reflecting a cumulative process. The client is eating healthier foods, has not been doing drugs and or alcohol, and has been exercising regularly. Combined with the clean air and fresh water, wilderness is working to cleanse clients physically, helping them continually to feel better about themselves physically and emotionally towards the end of the experience. In the concluding phases of wilderness therapy the client is finally able to appreciate living a simple and primitive lifestyle and has come into balance and harmony with natural processes. This is a powerful therapeutic factor teaching lessons the client can take home after wilderness therapy. Both of these therapeutic factors, alone and in combination are reasoned to accumulate over time, and thus to be most fully manifested in the concluding phases of wilderness therapy.

4. Anticipated Outcomes of Wilderness Therapy

   Staff at each program were asked to think of the effects of wilderness therapy in a broad sense in order to examine the underlying goals of wilderness therapy as an intervention for adolescents with problem behavior. Pattern codes which emerged from analysis of the reported outcomes are: (A) *Development of Self-Concept,* (B) *Knowledge and Skills,* (C) *Realizations to Change Behavior (D) Strengthened Family Relations.* The descriptive codes common to at least three of the four programs within each of these pattern codes are presented in Figure 4 and are followed by a discussion.

Figure 4. Pattern and descriptive codes representing reported outcomes of the wilderness therapy process.
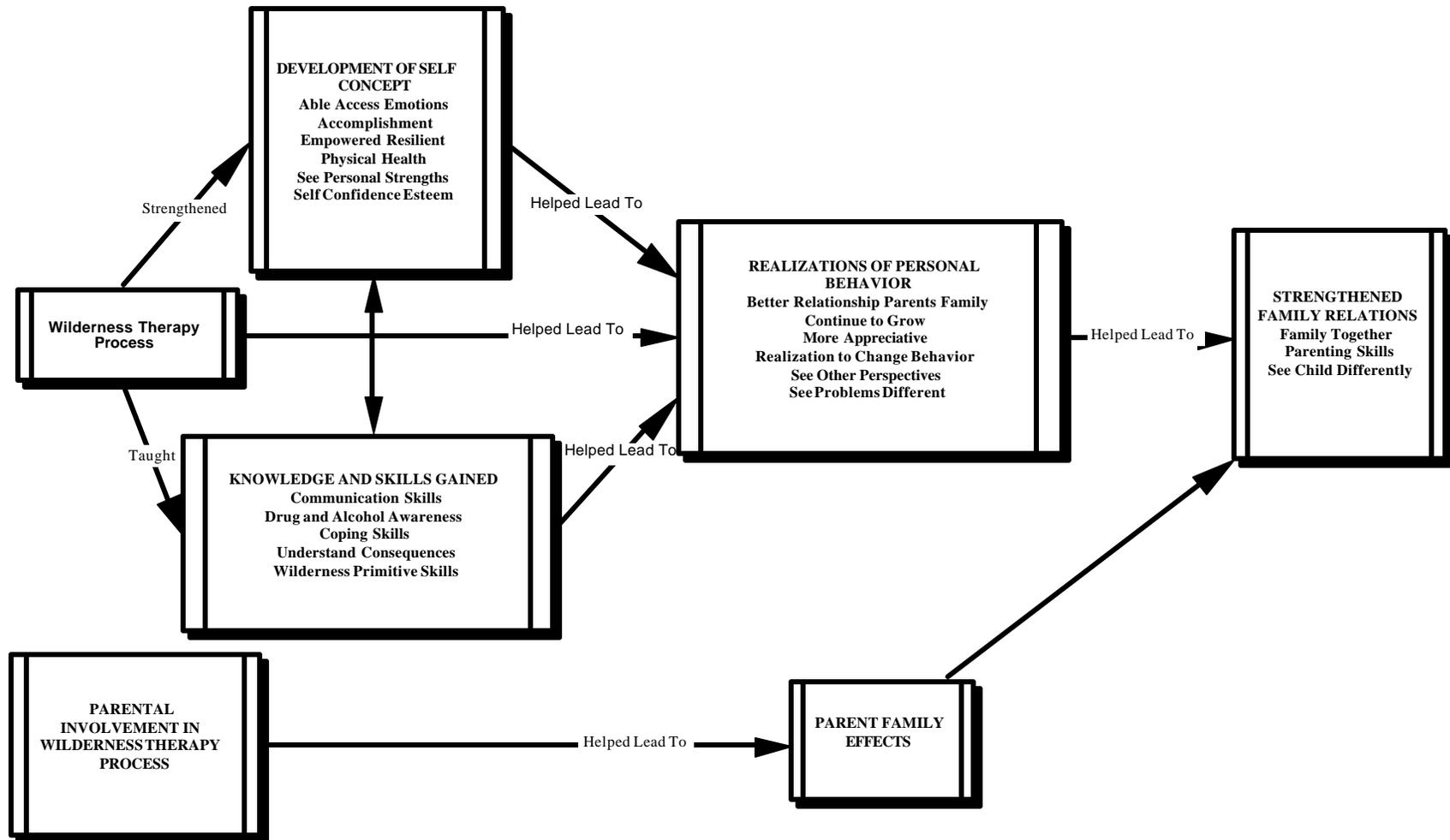
A. Development of Self Concept--Wilderness therapy represents a sense of accomplishment for the client that is concrete and real and that can be used to draw strength from in the future. This sense of accomplishment is combined with physical health and well-being, which helps clients feel better about themselves, leading to increases in self esteem and the first steps towards personal growth—which programs view as a journey lasting a lifetime. The process also teaches clients how to access and express their emotions and why talking about feelings is important. In the enhanced self-concept is a sense of empowerment and resiliency, with clients believing that if they completed wilderness therapy, they can also complete other formidable tasks. Clients leave wilderness therapy knowing that they have only just begun the journey and need to continue their own personal growth process.

B. Knowledge and Skills Gained--Development of the self through the wilderness therapy process is combined with learning a multitude of personal and interpersonal skills, which include 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 initial steps of the 12-Step model of recovery and begin the process of breaking the cycle of addiction. Being realistic about client relapse, parents work directly with clinical supervisors during the wilderness therapy process to help develop a relapse prevention plan to insure that the necessary support and structure is available if and when a relapse occurs. Clients have also learned to understand the consequences of their actions.

C. Realizations of Personal Behavior--Wilderness therapy helps clients understand changes they need and want to make after wilderness therapy. These realizations of past behavior, and proposed changes are voiced to parents during graduation ceremonies and post-trip meetings and serve as a guide for parents, staff, and follow-up institutions in helping 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 that they must want to continue to grow. They are more appreciative of the things they have in life, such as loving and caring parents, and have learned to see other perspectives, especially

those of their parents. Clients express a moral desire to reconcile and strengthen relationships with parents. They also have a different perspective of their past problem behaviors, realizing that often their behaviors were symptoms of other issues which were going on in their lives.

D. Strengthened Family Relations--Wilderness therapy programs do not accept clients unless the parents are committed to and take an active role in the process. This idea frames the key goal for the wilderness therapy process--a better functioning family. Parents participate in seminars that teach parenting skills and behaviors to facilitate better family functioning. Wilderness therapists work very hard with families throughout the process to insure that the family understands their role in the client's problem behaviors, and will work on establishing a structure in the home or alternate aftercare environment, to help clients continue the personal growth that has begun. Bringing the family back together that has been torn apart by the client's problem behaviors and reintegrating family structure around the client's and parents' needs are key outcomes of wilderness therapy intervention. Staff state that wilderness therapy has opened a window of opportunity for the client and family to change, and work very hard with families to take advantage of that window.

Implications for Wilderness

Wilderness therapy is a sophisticated treatment intervention based on an integrated theory of wilderness programming and eclectic therapeutic techniques, serving troubled adolescents who are not being reached by traditional therapeutic approaches. The social importance of wilderness therapy based on its emergence as an accepted treatment for troubled adolescents poses challenges and opportunities for wilderness conservation. Wilderness is increasingly being valued for more than just protected biodiversity and recreational opportunity, but also to enhance the social-economic benefits from programs for youth (Russell, 1998), and as a healing source for a growing number of emotionally and psychologically troubled adolescents (Russell and Hendee 1999).

Our data indicate a substantial and growing amount of wilderness use from at least 38 wilderness therapy programs (Russell & Hendee, 1998), which is but a small part

of the much larger wilderness experience program (WEP) industry that includes at least 500 WEPs (Friese and others, 1999). Wilderness managers recognize these increases; a national survey by Gager and others (1998) found that most wilderness managers experiencing WEP use in areas they administered believed such use was increasing.. These data from five known programs are initial projections extrapolated to 38 known programs and need to be validated through a survey of all wilderness therapy programs fitting the definition used in this paper.

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 dealing with such use believed it was *not* wilderness dependent, but two recent surveys of WEPs revealed that more than half the respondents said they operated in designated wilderness (Friese, 1996) and do regard their programs as depending on wilderness (Dawson, Friese, Tangen-Foster, & Carpenter, 1999). Managers' fears of WEPs identified by Gager (1998) include a need to establish new trails, overuse in areas already saturated, site impacts, large group size, lack of wilderness stewardship skills and knowledge, and conflicts with other users. Demand for wilderness use may soon overwhelm the capacities established by managers, raising 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 commercially outfitted use, or recreational use by the public?

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, Anasazi, 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 a

designated Wilderness area in the Northwest, also uses primitive fire making in pre-established areas, but cooks over gas stoves to lessen their impacts.

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 mangers 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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