# Wilderness Therapy as a Treatment Modality for At-Risk Youth: A Primer for Mental Health Counselors

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Many mental health counselors identify adolescent clients as the most "difficult" clients with which to work because it is a challenge to engage them in the counseling experience (Church, 1994; Hanna et al., 1999; Gil, 1996). At-risk youth tend to be ill equipped to engage in traditional counseling interventions, which require them to be verbal and to disclose thoughts and feelings (Hanna et al., 1999; Davis-Berman & Berman, 1994). Wilderness therapy, a specialized approach within adventure-based counseling (Fletcher & Hinkle, 2002), provides an alternative treatment modality that maximizes the client's tendency to spontaneously self-disclose in environments outside the counseling office (Hanna et al.). This article provides an overview of wilderness therapy as a treatment modality and identifies the associated therapeutic factors in an effort to inform mental health counselors.

Adolescents in the 21st century encounter risks and demands that seem to be more prevalent and more complicated than adolescent experiences over the last 100 years (Hamburg, 1993; Santrock, 1995). Adolescents are often portrayed as experiencing crises and turmoil resulting in stress and conflict. However, a more realistic view suggests that adolescence is a period of transition in which physical, emotional, and cognitive changes spark challenges and growth (Santrock). The central task of adolescence is identity development, and inadequate attainment of this task results in identity confusion (Erikson, 1968).

Normal adolescent development is confounded by situational variables such as high divorce rates, high adolescent pregnancy rates, increased mobility of families, lack of supervision and support from adults, and high rates of adolescent drug use (Santrock, 1995). At-risk youth are adolescents who are particularly susceptible to high-risk behaviors such as pregnancy, emotional problems, substance use, academic problems, behavioral problems, and delinquency. These at-risk behaviors impact the adolescent's ability to successfully negotiate the changes and challenges of adolescence and to develop into a productive, healthy adult (Santrock).

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Many mental health counselors identify adolescent clients as the most "difficult" clients with which to work because it is a challenge to engage them in the counseling experience (Church, 1994; Hanna et al., 1999; Gil, 1996). Hanna et al. (1999) encourage mental health counselors working with adolescents to "get out of the office" as much as possible. At-risk youth tend to be ill equipped to engage in traditional counseling interventions which require them to be verbal and to disclose thoughts and feelings (Davis-Berman & Berman, 1994). At-risk youth may not have learned appropriate communication in their families, and they may rely on displacement as a defense mechanism in counseling. Wilderness therapy provides an alternative treatment modality that maximizes the client's tendency to spontaneously self-disclose in environments outside the counseling office (Hanna et al.). Wilderness therapy is a specialized modality within adventure-based counseling (Fletcher & Hinkle, 2002). This article introduces wilderness therapy as a treatment modality within the field of mental health counseling and identifies the therapeutic factors associated with it.

#### WILDERNESS THERAPY AS A TREATMENT MODALITY

Wilderness therapy, as a treatment modality, developed in response to increased demands for rehabilitation programs for at-risk youth in the 1950s and 1960s (Kelly & Baer, 1968) and is largely based on the Outward Bound model formed by Kurt Hahn (Bandoroff & Scherer, 1994). Wilderness therapy can be defined as using traditional counseling techniques in an outdoor setting that incorporates adventure-based activities (Davis-Berman & Berman, 1994). Wilderness therapy is one approach to adventure-based counseling, a counseling intervention that is gaining professional recognition (Fletcher & Hinkle, 2002). What differentiates therapeutic experiences in the wilderness from wilderness therapy as a counseling specialty is "the systematic application of psychological principles to create change according to the individual's unique needs" (Davis-Berman & Berman, 1993, p. 35). Some programs do not clearly differentiate between wilderness therapy as a treatment modality and the wilderness as a therapeutic environment. Wilderness therapy, as opposed to wilderness as therapeutic, involves assessment, treatment planning, and service delivery by trained mental health practitioners. Wilderness therapy programs vary in terms of duration of experience, type of experience, and competence and credentialing of staff (Weston et al., 1999). Despite these differences, the common elements are the natural setting, the reliance on group interactions, and the perception of risk in activities.

Overall, wilderness therapy programs adhere to two domains: (1) goal of changing inappropriate behavior through experiential learning based on physically challenging experiences and (2) group orientation (Wilson & Lipsey, 2000). It is an action-oriented approach that augments traditional talk therapies by focusing on concrete, physical activity (Gillis, 1995). The action-oriented component is especially relevant for the developmental needs of adolescents.

Experiencing success in the physical activities contributes to a success identity characterized by higher self-concept, more internal locus of control, and higher self-confidence. The group orientation provides an environment for at-risk youth to learn and develop interpersonal skills, to experience trust and team building, and to develop a sense of group belonging.

#### WILDERNESS THERAPY PROGRAMS: THERAPEUTIC FACTORS

Wilderness therapy programs represent a shift from dysfunction and failure to strength and competency in mental health (Gillis, 1995). The focus is on solutions and success rather than on the problems. The therapeutic goal of programs is to promote feelings of empowerment, responsibility, confidence, and group cohesion within participants (Rosol, 2000). Wilderness therapy programs are distinguished from other recreation-based programs by the presence of credentialed mental health practitioners and by the emphasis on assessment and treatment planning (Davis-Berman & Berman, 1994).

According to Herbert (1996), wilderness therapy programs have five main characteristics. First, goal setting is an important component of the program as setting individual and group goals facilitates positive change and growth (Corey & Corey, 2000). Treatment planning that tends to be initiated and regulated by mental health professionals provides a framework for establishing goals and is also used as a mechanism to encourage client empowerment. Individual participants are expected to work at identifying, clarifying, and establishing their goals within the existing treatment planning framework. Second, trust building is an important therapeutic factor in wilderness therapy. The therapeutic relationship relies on the development of trust. Physical trust precedes emotional trust. Problem-solving and fun are two other characteristics of wilderness therapy (Herbert).

The last characteristic of effective wilderness therapy programs involves challenge and stress (Herbert, 1996). Challenge and stress are powerful motivating forces for human change and growth (Selye, 1965). Behavioral change occurs when individuals are placed outside their comfort zones and into states of dissonance, or disequilibrium (Gass, 1993; Priest & Gass, 1997). The benefits of eustress (positive stress) are abundant and varied. Wilderness therapy programs engage this therapeutic process to prompt individual change and growth by contextualizing the counseling process into a wilderness setting.

#### PROGRAM STRUCTURE

The structure of wilderness therapy programs provides a differentiation between therapy and programs that are "therapeutic." Wilderness therapy programs tend to have four fundamental components: pre-trip planning, trip implementation, post-trip debriefing, and aftercare (Davis-Berman & Berman, 1994). The pre-trip component of wilderness therapy programs tends to include psy-

chosocial assessment, psychiatric and medical evaluation, orientation to the program, orientation to basic camping and backpacking skills, and introduction and icebreakers (Davis-Berman & Berman, 1994). Parents (or guardians) may also be included in this process and may be involved in treatment planning. Consultation with previous clinicians is integrated as possible. The pre-trip planning accomplishes four fundamental tasks: (1) learning about the physical factors to survive in the wilderness, (2) initiating group forming and orientation through icebreaker and acquaintance activities, (3) assessing clients on multiple domains from multiple sources of information, and (4) setting goals. Family involvement at this stage and at the debriefing stage emphasizes the interdependence of family members from a systems perspective.

The implementation of the wilderness program varies depending on the program's goals, participants, and theoretical orientation. One important concept that is present in all programs is sequencing. Sequencing, or ordering, is an adventure-based counseling technique that ensures that group activities and experiences are appropriate for the group's needs and objectives (Schoel et al., 1988). The sequencing of group counseling sessions, group initiatives, and program development encourage the attainment of physical trust before the development of emotional trust. A group initiative is a group problem-solving task that is outlined by the facilitator and then solved by the group (Schoel et al., 1988). These promote the development of physical and emotional trust throughout the wilderness therapy experience.

The wilderness adventure experience is analogous to projective psychological tests in that clients reveal a complex picture of themselves through the experience. The picture is revealed in the manner by which clients respond to tasks, demands, and environmental stimuli (Kimball, 1983). During the implementation phase of wilderness therapy programs, transference is a fundamental issue. Transference refers to the process during which the client reacts to the counselor as a "virtual reincarnation of a parent or another significant figure from the past" (Peterson & Nisenholz, 1995, p. 105). Transference is a powerful medium in counseling to explore unresolved relationship issues with others (Peterson & Nisenholz). Transference in the wilderness environment tends to be experienced differently than it is within an institution, mental health agency, or school. The remoteness of the setting and the concentrated interactions within a group contribute to the transference issues being focused on a few leaders rather than diffused across a large staff (Williams, 2000). The main transference issue for at-risk youth is lack of trust for adults in authority positions (Marx, 1988). The wilderness therapy program permits the active and intense emergence of transference. These issues, then, can be addressed therapeutically.

A post-experience debriefing follows the program. The primary focus of this experience is to transfer learning to the home environment (Davis-Berman & Berman, 1994). The youth are encouraged to share their experiences, their learning, and their growth with their parents (or guardians). Discussion of how

to maintain positive changes in the adolescent and in the family is paramount at this time. The achievement of such a rigorous and intensive experience is also celebrated.

The last component of wilderness therapy programs is aftercare programs (Davis-Berman & Berman, 1994). Participants who live in the area can be encouraged to attend weekly group sessions. For the participants who do not live near the program, staff can plan methods for easing the transition and transferring the learning outside the program. Communication with clinicians, parents/guardians, and teachers can facilitate the youths' return to their environment. Maintaining contact with participants to check-in and see how they are doing is also important to maintain changes. Some programs also organize reunions and alumni trips for participants. The structure of wilderness therapy programs is bolstered by the philosophical foundation of the programs.

# PHILOSOPHICAL FOUNDATIONS

Wilderness therapy programs rest on the concept of "challenge by choice" which refers to the voluntary participation of clients in adventure-based experiences (Gass, 1993; Gillis, 1995; Schoel et al., 1988). This parallels informed consent in traditional counseling settings. Youth are able to withdraw from activities at any point. Challenge by choice is related to the "Full Value Contract" which is comparable to therapeutic contracts used in gestalt and reality therapies (Corey, 2000). The Full Value Contract entails the youth participants committing to work together with the group to achieve individual and group goals (Schoel et al., 1988).

Wilderness therapy programs integrate concepts from Adlerian therapy, reality therapy, and behavioral therapy. Adlerian principles evident in this type of programming include encouragement, holism, and natural consequences (Sweeney, 1998). Encouragement is a central component of facilitating attainment of self-confidence of the whole person. Adlerian principles articulate the faulty goals of adolescents and methods to respond appropriately (Sweeney). It is strength-based and advocates for egalitarian interactions between mental health counselor and client (Glass & Myers, 2001).

Reality therapy concepts also provide a framework for wilderness therapy, especially the concepts of success/failure identities and choice theory (Glasser, 1998, 1960). Adolescents are naturally seeking a success identity; however, their progress may be hindered by the lack of experiences of love and worth. The group experience in wilderness therapy provides a medium to experience being worthwhile and valued, while the initiatives and camping provide opportunities to be successful. Last, most wilderness therapy programs incorporate behavioral management principles. Modeling, reinforcement, behavioral rehearsal, and problem solving are key behavior therapy components used in these programs (Watson & Tharp, 1997). The treatment goals are defined in objective and measurable behaviors so assessment of progress can be quick and

clear. Many wilderness therapy programs emphasize an eclectic approach to working with at-risk youth. In addition to the philosophical commitment, other therapeutic factors include the wilderness environment, group orientation, and metaphorical framing.

# THE WILDERNESS ENVIRONMENT

The wilderness itself is perceived as a vehicle for change that provides a novel and unfamiliar setting (Gass, 1993). Participants are challenged with activities in an unfamiliar environment, thereby creating a new experience that has no pre-existing standards of success or failure attached to it (Gillis, 1995). Successful work in this environment facilitates development of a success identity (Glasser, 1960).

Furthermore, the wilderness provides all participants with egalitarian consequences for behaviors. It results in natural consequences, consequences that do not involve other people (Sweeney, 1998). Personal experiences provide insight about how to cope with life. Youth participants receive feedback from the environment itself when they are not making informed and appropriate choices. Nagging, yelling, and punishing are avoided as the environment dictates the natural consequences in an un-biased and consistent way. The impact of wilderness therapy is bolstered by the power of the environment itself.

#### GROUP INITIATIVES AND GROUP COUNSELING

Wilderness therapy promotes group interaction by utilizing initiatives and by integrating group counseling experiences (Schoel et al., 1988). Experiential-based groups provide a vehicle through which individuals can learn about how others perceive them and their interpersonal skills (Corey, 2000). The group functions as a social microcosm in which members are "caught in the act" of real-world behaviors and reactions (Yalom, 1985). The small group format in which activities are perceived as risky or stressful creates problem-solving situations. These situations allow for members to encounter each other, model each other, challenge each other, and provide feedback to each other (Gillis, 1995).

"Catching members in the act" breaks the cycle of behavior, thoughts, and feelings by increasing awareness. Awareness is the necessary precursor to change (Corey, 2000). Awareness and insight are the goals attributed to group counseling experiences. Insight for at-risk youth include the following: (1) here is what your behavior is, (2) here is how your behavior makes others feel, (3) here is how your behavior influences others' perceptions of you, and (4) are you satisfied with the world you have created? Adolescents especially benefit from group work because they build relations with peers, safely experiment with behaviors and limits, and challenge their values and modify them if needed (Corey, 2000).

The therapeutic factors associated with group counseling include universality, altruism, group cohesiveness, and interpersonal and vicarious learning (Corey, 2000; Fuhriman & Burlingame, 1990; Kaul & Bednar, 1978; Yalom, 1985). Universality involves the recognition that group members are not experiencing the problem or symptoms alone—others share the same experiences and symptoms (Fuhriman & Burlingame, 1990; Yalom, 1985). Clients consistently report universality as the most significant and valued experience in a group (Butler & Fuhriman, 1983). Group counseling provides members with opportunities to help others and to practice altruism. Initiatives also provide opportunities to share feedback and support. The opportunity to actively help others enhances self-efficacy and self-esteem (Yalom). The group counseling and initiative experiences also contribute to the development of group cohesiveness and interpersonal and vicarious learning. Adolescence can be a particularly isolating experience for many youth, so the experience of a cohesive group is especially powerful. Also, opportunities to rehearse new behaviors and to learn from the modeling of others are paramount in group experiences.

Many wilderness therapy programs rely on a "pow-wow" (or a comparable term) to promote group counseling. This time entails a process group facilitated by the staff. Expression of feelings, thoughts, and reactions to learning experiences are encouraged. Opportunities to role-play situations and to practice appropriate behaviors are consistently emphasized in this frequent group experience (Corey & Corey, 2000). Integration of psychodrama and gestalt techniques facilitates the here-and-now orientation of the group experience. Furthermore, group members are encouraged to use the here-and-now process in the group to resolve conflicts, to build on successes, and to problem solve situations (Melnick, 1980). When clients encounter problems or situations during the program, they are encouraged to "bring it into the group" by calling a "circle-up" during which facilitators and group members come together to process the problem, concern, or situation (Davis-Berman & Berman, 1994). The "circle-up" experience encourages clients to recognize healthy ways to handle conflicts and resolve problems.

Group initiatives are a fundamental tool of adventure-based counseling (Schoel et al., 1988). Adolescence is characterized by increased decision-making and increased experimentation with different identities and roles, so group initiatives are especially helpful in facilitating these developmental processes. Group initiatives provide a mechanism for processing communication, decision-making, leadership, and problem-solving styles. Processing of experiences in initiatives and other adventure-based activities is critical for stimulating awareness and change (Nadler & Luckner, 1992). The "debriefing" following an experience provides an opportunity to reflect and to consolidate learning (Schoel et al.). Wilderness therapy programs implement a variety of initiatives throughout the experience in order to accomplish the goals of improved communication, increased problem-solving and decision-making skills, and enhanced leadership skills. A variety of initiatives are available to accomplish

these goals. Outdoor leaders and mental health counselors are trained in how to implement and spontaneously structure such problem-solving challenges.

The emphasis on group counseling does not usurp the benefits of individual counseling (Davis-Berman & Berman, 1994). Many wilderness therapy programs recognize the benefits of other methods of learning through reflecting. Individual counseling sessions can be integrated into the program. To encourage self-awareness and self-expression, clients can also be encouraged to journal (Cranton, 1994; Nadler & Luckner, 1992). Group counseling sessions, initiatives, journaling time, and individual counseling sessions provide the therapeutic framework for a variety of programs. Wilderness therapy programs provide multiple vehicles for clients to develop self-awareness, responsibility, trust, and community.

# METAPHORICAL FRAMING IN WILDERNESS THERAPY

A powerful intervention in wilderness therapy is the integration of metaphors (Gass, 1995). Transfer of learning from the wilderness experiences to real-life experiences is enhanced by the use of metaphors. Metaphor is a symbolic way of experiencing reality (Priest & Gass, 1997). This tool involves creating a symbolic understanding for the adventure-based activity that represents the client's problem, issue, or situation outside the context of the activity (Gillis, 1995).

For example, mental health counselors working with clients who are struggling with making responsible, healthy choices in their lives could facilitate the "maze" initiative. The "maze" initiative requires participants to make their way through a maze constructed out of a rope being woven in and out of trees. The facilitator has created an exit, and participants hold onto this waist-level rope and "find their way out" while blindfolded. (For more details, please refer to Rohnke, 1989, pp. 103–104). The initiative is then debriefed within the context of a metaphor. Specifically, the variety of possible choices in terms of where to head could be framed as a metaphor representing the youth's possible choices at school. What does it take to make healthy choices that lead somewhere? What does it feel like to make a choice that leads to a dead-end? These questions could be framed in the context of the activity as well as school and home behaviors. The intentional framing of the activity to match and build on treatment goals and objectives is parallel to counseling interventions to summarize and build on underlying themes.

Wilderness therapy programs have the potential to provide a variety of therapeutic benefits for at-risk youth. The structure of the programs differentiates them from other recreation-based programs. The wilderness itself, the philosophical foundation, the group process, the reflection component, and the use of metaphors provide the therapeutic framework for the experience. The review of outcome research highlights the therapeutic benefits of wilderness therapy programs that have been substantiated in research.

# THE EFFICACY OF WILDERNESS THERAPY

Wilderness therapy has been implemented with adolescents in chemical dependency programs (McPeake et al., 1991), correctional institutions (Harris et al., 1993), court-referred programs, outpatient programs (Davis-Berman & Berman, 1989), and inpatient mental health programs. Assessing the effectiveness of such programs is imperative so that mental health counselors can make informed decisions about what factors of wilderness therapy are most empirically supported. Within the overarching arena of adventure programming, one meta-analysis demonstrated that adventure therapy programs contribute to improved self-concept, decreased behavioral problems, increased internal locus of control, and improved clinical functioning (Cason & Gillis, 1994). This meta-analysis used 43 studies with a total sample size of 2,291. Specific to wilderness therapy, there have been two recent meta-analyses conducted which provide more details on overall effectiveness and what factors are most helpful (Wilson & Lipsey, 2000; Bedard, Rosen, & Vacha-Haase, 2003).

Wilson and Lipsey (2000) conducted a meta-analysis of 28 outcome studies for wilderness therapy programs, and their results support the efficacy of such an intervention for at-risk youth. This meta-analysis reviewed the variables of antisocial behavior, recidivism, treatment duration, program intensity, and therapy. In terms of antisocial behavior, the results yielded an overall mean effect size of .18 across ten outcome studies. This mean effect size suggested that after completing the wilderness therapy program, treatment groups showed less antisocial and delinquent behavior in comparison to the control groups. The recidivism variable reflected a similar result with the .18 mean effect size indicating that 29% of treatment group participants reported subsequent delinquency in comparison to a self-reported recidivism rate of 37% among control group participants.

Within Wilson and Lipsey's (2000) study, positive results were significantly higher when the program integrated counseling into its framework. Programs that included group work, family counseling, and individual counseling generated a decrease in antisocial and delinquent behaviors. To assess this therapy variable, Wilson and Lipsey conducted a multiple regression with program duration, program intensity, and therapy as being predictors of delinquency and antisocial behavior. The overall model did account for significant variability in the outcome measures ( $R^2 = .43$ , p < .05). The presence of therapy as an individual variable also accounted for a significant portion of the variability in outcome effect sizes. This meta-analysis provides the strongest empirical support thus far for wilderness therapy since it included outcome studies that had to employ a control or comparison group and had to specifically assess behavioral outcomes. The interpretation of these results is restricted by the limited scope of participants in the included studies, specifically most participants were white males between the ages of 13 and 15, and by the lack of focus on what factors

are most beneficial in generating positive outcomes.

Whereas Wilson and Lipsey (2000) provided a broader definition of at-risk youth to include a sample of general youth self-reporting delinquency, the meta-analysis conducted by Bedard et al. (2003) focused specifically on wilderness therapy programs for juvenile delinquents who were defined as such by the legal system. This meta-analysis reviewed the variables of behavior change/interpersonal skills, self-esteem/self-concept, and recidivism. To be included in the meta-analysis, the studies needed to be empirically based with a statistical analysis, have as participants adjudicated juvenile delinquents between the ages of 10 and 18 years, and be focused on treatment conducted in "an unfamiliar wilderness context where modern conveniences are not available" (Bedard et al., p. 8). Based on these inclusion criteria, 23 studies generating 37 effect sizes were included. The studies ranged from those published in the 1970s, 1980s, and 1990s, and they included 3 master's theses, 11 doctoral dissertations, and 9 published articles.

For the variable of behavior change and interpersonal skills, eight studies addressing this variable yielded an effect size of .50 (Bedard et al., 2003). The self-esteem and self-concept variable had the highest calculated effect size of .54 across 16 studies, while recidivism had the lowest calculated effect size of .31 across 13 studies. While these results do not address the reasons behind the effectiveness of wilderness therapy programs, they do support that wilderness therapy programs are more effective than incarceration and probation in decreasing recidivism, increasing self-worth, and increasing behavioral and interpersonal skills (Bedard et al.).

Overall, research suggests positive outcomes for wilderness therapy programs (Pommier & Witt, 1995). The literature, however, is unclear about how wilderness therapy works, under what circumstances, for what clients; subsequently, mental health counselors are provided with minimal guidelines about what wilderness-based activities create the most therapeutic benefit (Gillis, 1995; Weston et al., 1999). Furthermore, current studies tend to have small sample sizes and to be conducted without much longitudinal data on the longer term benefits of wilderness therapy programs. Continuing to assess the empirical support for wilderness therapy programs is an area requiring ongoing research and dialogue.

# IMPLICATIONS FOR MENTAL HEALTH COUNSELORS

Wilderness therapy provides an alternative treatment modality for engaging at-risk youth in the counseling process. Designing programs that integrate individual and group counseling experiences enhances the impact of the restorative nature of the wilderness and the impact of group initiatives. Combining the skills of mental health counselors and outdoor leaders generates an environment in which adventure-based activities can be safely undertaken and in which experiences and learning can be processed on a therapeutic level. Mental health

counselors need to be aware of this modality as a potential treatment choice for their clients. Recognizing the potential therapeutic benefits encourages the mental health counselor's ability to advocate for clients attending an effective and credible program. Also, mental health counselors can consider working in a wilderness therapy program as a potential career niche.

Currently, there is a paucity of empirical support for the effectiveness of wilderness therapy programs for at-risk youth (Weston et al., 1999). While the meta-analyses conducted by Wilson and Lipsey (2000) and by Bedard et al. (2003) provide some empirical support for the overall effectiveness of wilderness therapy programs, they do not address the question of what specific factors are most therapeutic and what is the long term benefit of participation. Furthermore, previous studies have been criticized for lack of comparison/control groups, small convenience samples, lack of attention to confounding variables, and poorly constructed methodologies (Gass, 1995; Wilson & Lipsey, 2000). Given the inclusion of non-published studies in the meta-analyses, it is difficult to ascertain the methodological rigor and overall quality of the studies. Increased attention to this area would increase the credibility of prestigious programs that could successfully and powerfully influence the lives of at-risk youth. The conceptual framework and practical application of wilderness therapy are well-established. Attention to empirically validating the treatment modality is the necessary next step. Such a step would provide standards to guide mental health practitioners in developing wilderness therapy programs.

The existing wilderness therapy programs vary in the competence and credentialing of staff (Weston et al., 1999). It is important to note that current programs heralding themselves as "wilderness therapy" programs do not necessarily incorporate the therapeutic factors outlined above. Critical evaluation of program guidelines and staff competence is required to determine the therapeutic benefits of existing programs. Wilderness therapy, when delivered as described above, provides a powerful therapeutic tool that meets the needs and demands of at-risk youth.

#### REFERENCES

Bandoroff, S., & Scherer, D. G. (1994). Wilderness family therapy: An innovative treatment approach for problem youth. *Journal of Child and Family Studies*, *3*, 175–191.

Bedard, R. M., Rosen, L. A., & Vacha-Haase, T. (2003). Wilderness therapy programs for juvenile delinquents: A meta-analysis. *Therapeutic Wilderness Camping*, *3*, 7–13.

Butler, T., & Fuhriman, A. (1983). Curative factors in group therapy: A review of recent research literature. *Small Group Behavior*, 14, 131–142.

Cason, D., & Gillis, H. L. (1994). A meta-analysis of outdoor adventure programming with adolescents. *Journal of Experiential Education*, 17, 40–47.

Corey, M.S., & Corey, G. (2000). Groups: Process and practice. Pacific Grove, CA: Brooks/Cole Publishing Company.

Church, E. (1994). The role of autonomy in adolescent psychotherapy. *Psychotherapy*, 31, 101–108

Davis-Berman, J., & Berman, D.S. (1989). The wilderness therapy program: An empirical study with adolescents in an outpatient setting. *Journal of Contemporary Psychotherapy*, 19, 271–281

- Davis-Berman, J., & Berman, D.S. (1994). Wilderness therapy: Foundations, theory, and research. Dubuque, Iowa: Kendall/Hunt Publishing Company.
- Erikson, E. H. (1968). Identity: Youth and crisis. New York, NY: W. W. Norton.
- Fletcher, T. B., & Hinkle, J. S. (2002). Adventure based counseling: An innovation in counseling. *Journal of Counseling and Development*, 80, 277–285.
- Fuhriman, A., & Burlingame, G.M. (1990). Consistency of matter: A comparative analyses of individual and group process variables. *The Counseling Psychologist*, 18, 6–63.
- Gass, M.A. (1993). Adventure therapy: Therapeutic applications of adventure programming. Dubuque, Iowa: Kendall/Hunt Publishing Company.
- Gil, E. (1996). Treating abused adolescents. New York, NY: Guilford Press.
- Gillis, H. L. (1995). If I conduct outdoor pursuits with clinical populations, am I an adventure therapist? *Journal of Leisurability*, 22.
- Hamburg, D. A. (1993). The opportunities of early adolescence. In R. Takanishi (Ed.), Adolescence in the 1990's. New York, NY: Teachers College Press.
- Hanna, F. J., Hanna, C. A., & Keys, S. G. (1999). Fifty strategies for counseling defiant, aggressive adolescents: Reaching, accepting, and relating. *Journal of Counseling and Development*, 77, 395–404.
- Harris, P.M., Mealy, L., Matthews, H., Lucas, R., & Moczygemba, M. (1993). A wilderness challenge program as correctional treatment. *Journal of Offender Rehabilitation*, 19, 149–164.
- Herbert, J. (1996). Use of adventure-based counseling programs for persons with disabilities. *Journal of Rehabilitation*, 62, 3–10.
- Kaul, G., & Bednar, R. (1978). Conceptualizing group research: A preliminary analyses. Small Group Behavior, 9, 173–191.
- Kelly, F., & Baer, D. (1968). Outward Bound: An alternative to institutionalization for adolescent delinquent boys. Boston, MA: Fandel Press.
- Kimball, R. O. (1983). The wilderness as therapy. Journal of Experiential Education, 5, 6–9.
- Marx, J. D. (1988). An outdoor adventure counseling program for adolescents. Social Work, 33, 517–520.
- McPeake, J. D., Kennedy, B., Grossman, J., & Beaulieu, L. (1991). Innovative adolescent chemical dependency treatment and its outcome: A model based on Outward Bound programming. Journal of Adolescent Chemical Dependency, 2, 29–57.
- Peterson, J. V., & Nisenholz, B. (1995). Orientation to counseling. Boston, MA: Allyn and Bacon.Pommier, J. H., & Witt, P. A. (1995). Evaluation of an Outward Bound school plus family training program for the juvenile status offender. Therapeutic Recreation Journal, 29, 86–103.
- Priest, S., & Gass, M. A. (1997). Effective leadership in adventure programming. Champaign, IL: Human Kinetics.
- Rohnke, K. (1989). Cowtails and cobras. Dubuque, Iowa: Kendall/Hunt Publishing.
- Rosol, M. (2000). Wilderness therapy for youth at-risk. Parks and Recreation, 35, 42-50.
- Rubenstein, A., & Zager, K. (1995). Training in adolescent treatment: Where is psychology? Psychotherapy, 32, 2-6.
- Santrock, J. W. (1995). Life-span development. Madison, Wisconsin: Brown & Benchmark.
- Schoel, J., Prouty, D., & Radcliffe, P. (1988). *Islands of healing: A guide to adventure-based counseling*. Hamilton, MA: Project Adventure.
- Selye, H. (1976). *The stress of life*. New York, NY: McGraw-Hill.
- Sweeney, T. J. (1998). Adlerian counseling: A practitioner's approach. Philadelphia, PA: Accelerated Development.
- Tate, D. C., Reppucci, N. D., & Mulvey, E. P. (1995). Violent juvenile delinquents: Treatment effectiveness and implications for future action. *American Psychologist*, 50, 777–781.
- Weston, R., Tinsley, H.E.A., & O'Dell, I. (1999). Wilderness adventure therapy for at-risk youth. *Parks and Recreation*, 34, 30–40.
- Williams, B. (2000). The treatment of adolescent populations: An institutional versus a wilderness setting. *Journal of Child and Adolescent Group Therapy*, 10, 47–56.
- Wilson, S. J., & Lipsey, M. W. (2000). Wilderness challenge programs for delinquent youth: A meta-analysis of outcome evaluations. Evaluation and Program Planning, 23, 1–12.
- Yalom, I.D. (1985). The theory and practice of group psychotherapy, (3rd ed.). New York: Basic Books.

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