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Nicholas J. Hoeger
University of Northern Iowa

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Abstract
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NATURE AND ITS APPLICATION WITH STUDENTS WHO HAVE SPECIAL NEEDS

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Nicholas J. Hoeger
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This paper examines the utility of Nature-Assisted Therapy and its processes in conjunction with students who have been identified as having special needs. In addition, it weighs both the pros and cons of applying this method with various populations. Finally, it weighs the value of this approach within the educational setting and identifies common strategies that have been adopted.
The application of Nature therapy has its roots in a multitude of arenas. From the dawn of civilization, humans have been in direct contact with the Earth and its essence. They were totally integrated with the natural world around them. Their well being and survival was fine tuned to thrive in this co-existence. However, much of this has changed since the onslaught of the Industrial Revolution. In an era where everything from food, to education, to even our health and social lives comes prepackaged, it is no wonder there is a growing trend to have prepackaged people.

Following suit, even the educational system has been willing to label its students with little regard for their social and emotional needs. However, things have changed and continue to do so with the advent of inclusive education and the use of Individual Education Plans (IEPs). One change involves plans to take students with special needs out of an institutionalized setting and giving them the opportunity to experience a broader range of people and choices. Despite this effort, school districts are still basing their educational programs on their ability to turn out the most graduates for the least amount of money. As a result, higher levels of learning, both academic and emotional, are sacrificed. One intervention schools can
integrate into their counseling program to offset this deficit is the application of nature-assisted therapy.

This paper will look at a counseling approach that goes back to the roots of human nature and reunites people with their past, present and future. More importantly, this paper will look at how nature-assisted therapy can be incorporated into an educational setting to provide pupils with the opportunity to reconnect with nature. To start, the author will look at the ideas behind this approach, where this methodology came from and how it is defined.

Nature-Assisted Therapy

Philosophy of Nature-Assisted Therapy

There now appears to be a movement to get out of the prepackagedness of U.S. American life and into the way things were originally meant to be, a natural way. Some may view this as a trend while others view this as a way of life. People aren't prepackaged single servings. People of the United States are natural entities living in a world of massed produced industry, socialization, and education. As a result, we are losing our connection to our Mother Earth and to our history. As Jung (1964) once wrote:

Man feels himself isolated in the cosmos, because he is no longer involved in nature and has lost his
emotional “unconscious identity” with natural phenomenon. These have slowly lost their symbolic implications. Thunder is no longer the voice of an angry god. No voices now speak to man from stones, plants and animals, nor does he speak to them believing they can hear. His contact with nature has gone, and with it has gone the profound emotional energy that this symbolic connection supplied. (p. 85)

To some, the idea behind using nature-assisted therapy is to reconnect with nature. By doing this it is believed that one is able to regain the symbolic connection that has been lost and regain the emotional energy that comes with it. There is also evidence that physical health and well being are enhanced with this connection.

**Historical Background**

People have lived in the wilderness for millennia until the dawn of the Fertile Crescent and its inhabitants’ rise to power. Since this time nomadic people have lived and traveled on the earth and reaped what was before them, and still do in some parts of the world. But, with time and increased “civilized” populations came technology and increased reliance upon it with little connection to the world’s raw materials, nature in its essence. This process
came to a hilt during the Industrial Revolution when entire populations of people lived completely immersed in urban culture, protected and cutoff from the natural world.

In retaliation to this, it was in the middle part of the 19th Century when people began to think of the great outdoors as a regenerative place. Thus, the first organized camps began to spring up to give weary adolescents a form of respite from the stress of urban life (Davis-Berman and Berman, 1994). It was Frederick Gunn who, in 1861, established the first organized camp for adolescent boys called the Gunnery School for Boys (Mitchell, Robberson, and Obley, 1977, as cited in Davis-Berman and Berman, 1994). This established a growing trend to organize and implement wilderness experiences for people who generally needed a break from everyday life.

Schoel and Maizell (2002) reported that as these camps opened all over the Eastern Seaboard, it was in 1901 that Manhattan State Hospital East opened a ward for patients suffering from tuberculosis (TB). However, this ward was set entirely outside in tents. The idea behind having the tuberculosis ward set outside was two fold. The first was to simply isolate those with TB from those without. The second was discovered later when it was found that those
who were enrolled in the "tent therapy" were showing considerable improvement both physically and mentally (Schoel and Maizell, 2002).

Surrounding mental hospitals took note of the improvement of these patients and in 1906 Andrew Hoisholt (American Journal of Insanity, 1906, 1910, 1916, as cited in Davis-Berman and Berman, 1994) began implementing tent therapy programs for psychiatric patients. It was found that these tent therapy programs for patients suffering from psychiatric illnesses produced significant results in patients and was considered a valuable part of treatment for those deemed recoverable (American Journal of Insanity, 1910, as cited in Davis-Berman and Berman, 1994). However, once the tents were taken down and patients went back inside for the winter, they began to regress in their behaviors, becoming incontinent and withdrawn (Davis-Berman and Berman, 1994).

Some time later, in the 1920’s through the 1940’s, a German born educator named Kurt Hahn developed educational programs in Germany and the U.K. that combined a traditional education with a new approach utilizing the wilderness and adventure to build character in the youth through sailing expeditions (Zelinski, 1991). This was the
inception of the Outward Bound movement, now a global educational system that combines adventure with natural landscapes. It was through this approach that Hahn gave children a chance to discover themselves through success, defeat, and periods of silence (Miner and Boldt, 1981).

Around the same time period, in 1929, Camp Ahmek was founded in the U.S. This is significant because this was the first therapeutic approach to camping to be offered to adolescents for the explicit purpose of assisting in the socialization of its campers. From this, and the above programs stemmed a multitude of wilderness and adventure programs that are inherently and explicitly designed to be therapeutic for a multitude of populations (Reynolds, 1942, as cited in Davis-Berman and Berman, 1994).

Definition

While such programs continue to provide a viable alternative to traditional therapy approaches whose roots are based upon a psychoanalytic approach, it presents yet another problem. Many of these programs in this day and age utilize a combination of practices that draw from the natural world and from artificial (man-made) adventure-based approaches. While the dual approach can be viewed in a positive light because these programs contribute to the
overall understanding of the wilderness approach, it wasn't until recently that a specific statement defining what nature therapy was, was introduced into the literature (S. Becker, personal communication, August 18, 2004).

It has been a common trend to label various programs as wilderness-based or nature-based approaches to counseling and therapy. According to Krakauer (1995, as cited in Russell, 2001) a form of brainwashing known as wilderness boot camps for troubled teens (of which some still exist today) was included in this definition. While these may be set in a natural or wilderness locale, they are far from being considered nature-assisted therapy. In these camps, change is forced upon unsuspecting youth through various forms of unobtrusive torture like marathon hikes with little or no food. The intention is to break them down, then build them back up to "reshape" them (Krakauer, 1995, as cited in Russell, 2001).

With true wilderness therapy, change on behalf of the client is influenced by use of metaphor, experience and guided discussion (S. Becker, personal communication, August 18, 2004). Also, it is truly therapeutic in that the same counseling skills are implemented as in a traditional therapeutic setting where the counselor must
still maintain unconditional positive regard and hold to a nurturing, caring, and empathetic role. What’s more, nature-assisted therapy takes a challenge by choice approach, which reduces psychological discomfort (Schoel and Maizell, 2002). This approach simply states that participants can opt out of an activity with no judgment or ridicule from the counselor or other participants (Schoel and Maizell, 2002).

Major Change

Because certain aspects of nature-assisted therapy include adventurous activities like abseiling (i.e. rappelling) and rock climbing, it was generally assumed that taking these activities out of the context of the wilderness environment could be construed as a form of nature-assisted therapy (i.e. abseiling in a gymnasium, indoor rock climbing, etc.). Not so. This form of counseling and therapy has become known as Adventure-Based Counseling (ABC). This method has incorporated various other strategies in addition to the typical “adventure”. It is because of this that ABC is deemed a separate entity from nature-assisted therapy.

Nature-assisted therapy comes solely from being in nature or brings nature to the participant. While nature-
assisted therapy can be an outdoor adventure pursuit, it can also apply primitive skills and reflection to enhance personal and interpersonal growth (Kimball and Bacon, 1993, as cited in Russell, 2001). Obviously bringing the participant to nature is relatively self-explanatory, however, some elaboration may be needed to explain how nature can be brought to the participant. If one can't take the client to nature then the counselor needs to take the nature to the client. This can be done in a number of ways depending what goals one wants to accomplish and what is readily available. If a student is prevented from going to or participating in outdoor activities due to health, phobic or mobility reasons, it may be advisable to bring in various animals, plant life, inanimate objects found in nature, and the like. Animal-assisted therapy, a developed field of its own, brings domestic animals to the clients. An example of this is bringing llamas to various clientele because they have been found to be quite therapeutic in that they are calm and accepting (Doskoch and Pirisi, 1997). For school environments, smaller animals can be brought in and used in a therapeutic manner to teach the students about empathy and care (Lloyd-Nebbe, 1995). However, it's important to check with state and local laws as well as the
Humane Society for guidelines of best practices for bringing animals into a school. But why bother doing this?

Some may rationalize this as biophilia. Essentially, the biophilia hypothesis asserts that people have a genetically based need to affiliate with life and lifelike processes. Kellert and Wilson (1993) continued on this path stating that the emotional, cognitive, aesthetic, and spiritual development of people depends upon the existence of and interaction with nature. Evidence supporting this show that those who have even minimal contact with nature (e.g. looking through a window) increases productivity and health in the workplace, promotes healing of patients in hospitals, and reduces the frequency of sickness in prisons (Kahn, 1997).

Combining this with an experience known as flow (Csikszentmihalyi, 1990), it's no wonder how the combination of nature and our need for it interacts with goal directed behavior to produce an altered psychological state. This flow can be described as a state of consciousness where one experiences complete immersion in what he or she is doing as well as being in a state of ecstasy from being outside everyday reality. With this state of flow comes great inner clarity and a sense of
knowing what needs to be done, and how well we are doing. In addition to this, there is a knowledge that the activity one is doing is doable and that one’s skills are adequate to the task. What’s more, a sense of serenity from growing beyond the ego as well as a sense of timelessness results from being in this state of mind (M. Csikszentmihalyi, personal communication, March 5, 2005).

It’s been said that roughly 12% of the human population experiences this state of flow on a daily basis, and roughly 12% never experience it at all. The remaining population only experiences this state of mind once in a while, when they do something they like and know (e.g. scuba diving, hiking, playing sports, painting a picture, rock climbing, etc.). Being in this state of mind has been linked to increased self-esteem and greater confidence (M. Csikszentmihalyi, personal communication, March 5, 2005).

So, how can we reproduce this sensation? All that is needed is a challenging activity that requires skill. A majority of people who experience flow, do so from participating in activities that are goal-directed, are bounded by rules, involve an investment of psychic energy, and require appropriate skills (Csikszentmihalyi, 1990).
It can be thought that the combination of challenging activities that induce a state of flow, a human need to be in nature, and a warm, empathetic, therapeutic relationship can do wondrous things for an individual.

**Students with Special Needs**

**Historical Background of Students with Special Needs**

When looking at the historical background of students with special needs, the picture was rather bleak up until 30 years ago. If common society could be looked at as a circle, then those who deviated from the norm and showed little ability to accommodate to the emotional comfort of the masses were institutionalized. This is what happened to students who were deemed as having special needs (C. Kliewer, personal communication, August 30, 2004). However, in 1971 the Pennsylvania Association for Retarded Citizens (PARC) went to court against the state of Pennsylvania because they were fed-up with the lack of options for their children (C. Kliewer, personal communication, August 30, 2004). At this time, a man named Burton Blatt testified as the chief witness on behalf of PARC and purposed the paradox of educability. Essentially this paradox stated that all children are educable, but that this can’t be proven. He said, to make it true you
must believe it, and if you don’t it will be false (C. Kliewer, personal communication, August 30, 2004). PARC won the case and as a result the Individuals with Disabilities Education Act (IDEA) came into federal legislation. IDEA borrowed its language from PARC and said that every child in the U.S. had a right to a Free and Public Education (FAPE) in the Least Restrictive Environment (LRE) possible. The LRE in an environment that resembles what is normal in general education and it is also an environment that best meets the determined needs of an individual (C. Kliewer, personal communication, August 30, 2004).

Who Can Be Included

Since the inception of IDEA, the term special needs has become more of an umbrella under which a number of categories are included. As a rule of thumb, a student with special needs is categorized as such if he or she learns in a manner that does not correspond with the system of education. This would include students that have been diagnosed with learning disabilities as well as speech and language impairments. This umbrella term also includes those with emotional and behavioral disorders, persons with vision and hearing impairments, multiple disabilities,
orthopedic and health impairments as well as students termed gifted and at-risk (Freiberg, 2004).

Nature-Assisted Therapy and Students with Special Needs

When considering who nature-assisted therapy will work best with it seems that it, particularly the type involving some aspects of ABC, has a noticeable effect with students suffering from low self-esteem. This is due to a broadening of a repertoire of effective coping skills and an increased number of "success" experiences in life (Schoel et al, 1988 as cited in Nassar-McMillan and Cashwell, 1997). This method has also been associated with significant change in those with anger management issues, those who have difficulty managing their emotions, those lacking communication skills, and those who struggle with conflict resolution. What’s more, this method of therapy helps clients facilitate problem-solving skills and helps them build a repertoire of assertiveness skills (Crisp and O’Donnell, 1998). Wilderness-adventure therapy also aids those who lack the ability to budget, who lack time-management skills, as well as those with poor self-care (Crisp and O’Donnell, 1998). In addition, this approach to
counseling positively impacts those with diagnosed disorders such as depression, social phobia, substance abuse, as well as attachment disorder (Crisp and O’Donnell, 1998).

To Whom Nature-Assisted Therapy is Most Often Applied

While nature-assisted therapy provides a solid foundation for those with the above conditions, it is most often utilized for students categorized as at-risk (those with little support from home, who have been exposed or at risk of making poor decisions, etc.). It is because these students have not had the opportunity to develop socially or emotionally, to be challenged, or to develop pro-social values that wilderness programs are employed as an available form of treatment (Rosol, 2000). What’s more, these individuals are at risk for being caught in destructive or self-destructive lifestyles. Counselors may work with outside sources such as welfare departments or courts as a method of aiding these students (Ringer, 1994).

Common Strategies

Common strategies that need to take place when conducting wilderness therapy are more or less the same as any other style of counseling with the exception of a few more precautions. Namely, the use of an assessment device
to gain a perspective as to where the client is currently functioning and a method to use as a pretest and posttest (Wick, Wick, and Peterson, 1997). When working with forms of nature-assisted therapy, it is often necessary to take students off of school property into a wilderness setting. Therefore sending letters home explaining any activities to serve as disclaimers are distributed, as are permission forms to be signed by the legal guardians of the students. It is also important to take precautions to ensure that students with allergies and other health concerns are accommodated.

Ideally, when a group starts working on wilderness activities, it’s important for the group to set ground rules and behavioral contracts in a collaborative manner. This is to ensure the safety of all participants. It is important that the members of the group own the rules so they don’t appear to be forced upon them.

The leader needs to share the power and control with the group. This can be done by the leader modeling proper behaviors and giving the youth the freedom to enforce the rules. Before and after each activity, it’s necessary for the group to process what will happen as well as what did
happen to achieve maximum therapeutic effect (Ringer, 1994).

There are three sets of skills a leader needs to have when practicing nature-assisted therapy. These skill sets are known as technical skills, soft skills, and advanced skills. The technical skills consist of possessing the competencies necessary to conduct and demonstrate various activities like map reading, rock-climbing, fire building, first-aid, nutrition, etc. (Crisp, 1998).

A counselor's soft skills are skills that facilitate the counseling process. These consist of being a good listener and communicator, being flexible, empathetic, having common sense under stress, the ability to process activities, and being able to adjust one's leadership style to be supportive (Rosol, 2000). What's more, this set of skills requires a leader to be genuine, concrete and confrontive when necessary (Bartley, 1989, as cited in Rosol, 2000).

Finally, the advanced skills a leader must possess lie in the specialized training he or she receives. These consist of knowledge in psychotherapy and counseling techniques (Davis-Berman and Berman, 1994). It is through the use of these in conjunction with the previous two sets
of skills that an individual or group is able to attain the most growth out of a nature-assisted experience.

How Nature-Assisted Therapy Can Be Used in Educational Systems

There are a number of ways to introduce nature-assisted therapy into an educational system. However, in order to do this one needs to ensure that it’s holistic in nature by incorporating all aspects of the human experience. While seemingly difficult this can be done by planning activities that integrate a variety of activities that involve reflection, a certain element of surprise, as well as harboring some social, physical, creative, and intellectual challenge (Martin, 2003). This approach aims to stimulate self-development (Martin, 2003) while meeting the needs of the student as a learner and as a social entity. By doing this, one ensures that group members are able to apply the activities to their everyday lives.

In a study conducted by Patterson (1995), it was found that eighth and ninth graders who participated in a weeklong wilderness-adventure program prior to the school year increased the students’ self-esteem. What’s more, they felt as though it had helped them become a more positive, contributing member of a group (Patterson, 1995). To add
to this, the students felt that they were now better able to work with others (Patterson, 1995).

Pros and Cons of Nature-Assisted Therapy

While the benefits of nature-assisted therapy may not be overtly evident at first, students often report a greater sense of cohesiveness, increased self-esteem (Schoel et al., 1988, as cited in Nassar-McMillan and Cashwell, 1997), progressive knowledge of self (Russell and Phillips-Miller, 2002), as well as decreased symptomology of depression, social phobia, substance abuse, and attachment disorder (Crisp and O'Donnell, 1998). However, because such an approach in the schools requires an enormous amount of preparation, the desire to implement such a curriculum often fizzles out long before any therapeutic interventions have a chance to get off of the drawing board (Crisp and O'Donnell, 1998).

Best Practices

While there is no getting around the fact that implementing a nature program within the school is often tedious and time consuming, it can be a wonderful asset to a counseling program. To develop a program, a few logical steps need to be taken into consideration.
First, the goals of the program need to be laid out and put into clear objectives. After the objectives are clearly stated, a plan of action should be laid out making sure that the activities allow for both success and failure (Fletcher and Hinkle, 2002).

Next, careful selection of facilitating adults should be examined as well as their qualifications for carrying out such a program. Those possessing a combination of technical, soft, and advanced skills typically make for qualified candidates. Once this is completed, a plan for risk management needs to be established. Such a plan should recognize what could go wrong and focus not only on reaction, but on prevention as well. This needs to be written down and made available to facilitators and supervisors (L. Lloyd-Nebbe, personal communication, April 14, 2005).

Following this, selection of participants that could benefit from such an experience should be listed and informed. An informed consent and permission form should then be sent to the legal guardians of the potential participants.

Once the group is formed, the participants need to establish some ground rules for interacting with one
another, which will be reviewed at the beginning of every session. Prior to an activity, the facilitators will explain and demonstrate safety procedures as well as any other directions necessary for the proper function of the activity. Once the students complete the activity or are at a good breaking point, a processing session will take place where the members discuss what had happened and its implications to the world outside of the group.

Upon completion of the group process, an assessment will be given to the members to evaluate whether or not the objectives were met. This assessment should include questions pertaining to the established goals of the group and can be as simple as a few items on a Likert scale. Through this, the methodology can be reevaluated and restructured as needed for future groups of a similar nature. To gain more insight into the facilitative process and its mechanics this assessment can be given as both a pretest and posttest to the group members.

Conclusion

When working within an educational setting with students who have special needs, it is important to note the various aspects that are involved in the social and emotional constructs of the individuals. This population
of pupils is at an ever-growing disadvantage with the push for increased competencies and decreased funding. It is vital to these students and the population at large, that they are able to familiarize themselves with and utilize the full range of human experiences to grow into a contributing member of society. Part of this experience is to reconnect with nature.
References


