

WILDERNESS AS HEALING:

A Comprehensive Survey of the Literature and Critical Analysis

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Abstract

This comprehensive survey of literature with critical thematic analyses was conducted by Michael Gallo to form a contemporary perspective of *Wilderness as Healing*. Understanding existing perspectives of therapies integrating wilderness experiences was a pertinent foundation for this review. The dearth of prior literature and limited population-specific research necessitated focusing on underlying theoretical constructs as well as the author's personal experiences as a foundation for new perspectives regarding the potentials for treatment applications incorporating wilderness experiences within clinical psychotherapies. This study facilitated answering three guiding research questions, generating a comprehensive perspective of wilderness as healing benefitting clients by using (a) wilderness therapy, (b) experiences in nature, and (c) relational psychology combined with the philosophies of both transpersonal ecology and ecotherapy practice. This work stands as a foundation for furthering understanding. The potential implications for use within treatment for at-risk youth, women, and families are vast. Additional research is required to develop specific recommendations for practice with these and other populations. Definition of the field through further research is the most critical recommendation for future study.

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DEDICATION

The best remedy for those who are afraid, lonely or unhappy is to go outside, somewhere where they can be quiet, alone with the heavens, nature and God. Because only then does one feel that all is as it should be and that God wishes to see people happy, amidst the simple beauty of nature. As long as this exists, and it certainly always will, I know that then there will always be comfort for every sorrow, whatever the circumstances may be. And I firmly believe that nature brings solace in all troubles. (Anne Frank, 1944, "Wednesday, February 23," para. 1)

What I am really saying is that you don't need to do anything, because if you see yourself in the correct way, you are all as much extraordinary phenomenon of nature as trees, clouds, the patterns in running water, the flickering of fire, the arrangement of the stars, and the form of a galaxy. You are all just like that, and there is nothing wrong with you at all. (Allan Watts, 1974, s. 3)

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CHAPTER I: INTRODUCTION

This comprehensive review of the literature was conducted to document and advance understanding regarding the *inner* and *outer experiences* (i.e., emotional response and demonstrated reactions) of people in nature and how these experiences influence their relationship with the world they live in. The essential premise explored herein was that attributes of nature could become psychologically grounding and restorative for humans. An array of professionals (e.g., psychologists, ecologists, biologists, philosophers, spiritual leaders, ecofeminists, historians, scientists, poets) as well as many laypeople documented their perceptions of the value of natural world experiences and the importance they have had within their personal lives (Brady, 2006). Emphasis has been placed on the importance of considering nature within all people; both professionally and personally.

To help the reader understand the context of this research, this review provided definitions for the pertinent terminology used within the research and a summary of various perspectives pertaining to the healing powers of nature. The exploration of treatment possibilities as well as evidence-based practices was relevant for the outer experiences of nature among human beings. The literature review also encompassed philosophers' remarks and psychologists' research findings regarding inner experiences of the healing powers of the wilderness. Finally, childhood motivators of adult interest in nature were examined. Combined, these concepts were anticipated to enlighten the reader about the benefits that can be reaped from the preservation of nature and the powers of planet Earth.

Background

Since the early 1900s, the *American Journal of Insanity* reported positive outcomes from the use of *tent therapy*. Morse (1957) developed many of the constructs that are used in the 21st century for youth with emotional and behavioral disorders in wilderness camp environments. Morse (1957) developed his ideas through his work with the *Fresh Air Camp* at the University of Michigan. Throughout the 1960s and 1970s, several programs were developed for at-risk youth in residential hospital settings and day treatment camps.

Studies of wilderness therapy camps since the 1970s have documented positive outcomes developing positive self-concept among youth with emotional and cognitive disturbances. J.J. Gibson (1979) concluded, “while many of the empirical studies are of questionable validity due to methodological shortcomings, it is clear that wilderness programs can and do result in positive change in self-concepts, personalities, individual behaviors and social functioning of the program participants” (p. 30). Wichman (1991) demonstrated the effectiveness of wilderness therapy camps for reduction of conduct disorders and antisocial behaviors. Castellano and Soderstrom (1992) documented positive outcomes including a reduction of delinquent behaviors, sustained one year post-treatment.

Historically, *wilderness therapy* started with the Outward Bound model, which was not constructed for women (Powch, 1994). Since the inception of Outward Bound, many programs were created around this model. The benefit is believed to be mastery of a new set of skills that enhances self-esteem and develops a sense of self-control. Wilderness therapy for women is a new and promising field (Powch, 1994). Since the

early 1980s, therapeutic interventions emerged for the empowerment of female survivors of incest, rape, and battery. The promise of this approach is extended when it is connected with the feminist spirituality movement and reclaiming the earth as a place women can reside (Stone, 1979). This connection between feminist spirituality and the environmental movement is growing. Research conducted by Stone (1979) documented a connection between women's spirituality and Goddess images in order to save the planet from environmental destruction. There are three distinct components of wilderness therapy (a) the healing effects of specific therapeutic activities, (b) the challenges in a novel environment, and (c) the more elusive spiritual healing effects of a newly found or renewed sense of connectedness with the power of the earth (Powch, 1994).

The term *ecopsychology* was coined by Theodor Roszak in his 1992 book entitled *The Voice of the Earth*. Roszak's focus was to bring awareness to the intimate connection between human experience and the natural world. Other psychologists considered the interrelationship between the mind and nature. Specifically, Freud initiated this line of inquiry, followed later by Carl Jung, William James, Abraham Maslow, and B.F. Skinner. These theorists all wondered about connections uniting humans with nature (Roszak, 1992).

Carl Jung (1966) saw a connection to the unconscious and called this the *collective unconscious*. Jung believed the collective unconscious could be trusted and connected us to all things around us. An example includes the human observation of a large bird in the sky; this evokes a sense of awe and wonder about the bird flying through the air so gracefully. The same applies when we see a young animal, whether human or other species, we tend to have good feelings associated with seeing their small features.

Collectively, we are all connected in unconscious ways. Jung (1958) wrote about the importance of being aware of this unconscious instinctual self, which has deep roots in the evolutionary history of humans. Jung (1958) explained that entirely giving up our instinctual self has a deadening effect on humans. Jung (1958) asserted that we must reclaim this aspect of self, because this is the origin of human vitality and the impetus for all endeavors exploring learning and experiencing interactions with our world.

Problem Statement

The problem addressed in this study is the need to gather and critically assess the resources about wilderness therapy to truly determine the potentials within contemporary treatment. A common theme in the literature about *wilderness as healing* is the relative lack of information for developing a general understanding about the wilderness and specific practical knowledge for integrating this within therapeutic approaches (Russell, 2001). Much of the prior research explores the positive experiences of adolescents in nature and its transferability to the family. Scant research has been conducted with the populations in most need of therapy, such as children, individual adults, families, or special populations such as prisoners, brain injured clients, or patients with stroke or spinal injuries.

The benefits of family involvement in wilderness therapy have been discussed but not empirically assessed. Continuing research is necessary to understand the significant changes in daily functioning that are observed while using wilderness therapy. Research suggests positive outcomes for wilderness therapy programs (Pommier & Witt, 1995); however, it has not been established how wilderness therapy works, in what circumstances, and for which clients (Hill, 2007). Mental health therapists have received

minimal direction regarding the intended therapeutic benefits of wilderness-based activities (Gillis, 1995). A focus on empirically validated treatments and preferred modalities would help establish guidelines for clinical practitioners integrating or developing wilderness therapy interventions (Berman, Jonides, & Kaplan, 2008; Hill, 2007).

There is a dearth of research on children's experiences of nature. However, Kellert (2002) discussed the probable negative developmental impacts among children who are becoming increasingly out of touch with nature and the natural processes of diversity in nature. Kellert (2002) explained that the vicarious experience of the world through television and video games provides only an indirect experience of the natural world. Conversely, Kahn and Kellert (2002) reviewed studies that suggested some positive effects of television exposure for developing familiarity with the natural world. However, Kellert (2002) suggests these experiences are insufficient as compensation for the lack of direct contact the 21st century child has with their local natural environment. Children's ability to access ongoing experiences in nature is a critical and irreplaceable aspect of their healthy maturation and development (Kellert, 2002).

Current *depth psychology*, contemplating the connection between conscious and unconscious for behavior and cognition, is extending the work of Freud and Jung to encompass the psychic reality of the non-human experience of nature (Aizenstat, 2003).

The contemporary generation of depth psychologists includes Robert Sardello, Robert Romanyshyn, James Hillman, Mary Watkins, and Stephan Aizenstat, among others. This new form of depth psychology includes the psychic realities of a wider dimension than the collective unconscious, coined as the *world unconscious* (Aizenstat,

2003). In the world unconscious, all creatures and living organisms are understood as interconnected and interrelated (Aizenstat, 2003). This embraces the interconnection of human experience with the environment. As Alan Watts (1974) once said, “It is the hermit in the far forest that realizes that everything in the universe is intimately connected” (s. 6). In the current depth psychology literature, all the phenomena in the world possess intrinsic unconscious characteristics and inner natures (Aizenstat, 2003). These inner natures of organic and inorganic substances make up the world unconscious (Aizenstat, 2003).

There has also been documented evidence demonstrating psychological benefits from direct exposure to nature. Bradley (1997) interviewed people who went through nature-based psychotherapy to assess whether there were any noticeable psychological changes. Bradley’s (1997) study was designed to increase awareness of the individual’s interconnectedness with nature so that psychological repair could be fostered. The study documented that 80% of the participants did experience positive psychological changes from their contact with nature (Bradley, 1997). It was reported that most of the participants experienced (a) an increased sense of gratitude for previous feelings of sadness and anger; (b) increased self-efficacy, intuitive, and creative capacities; (c) reduction of negative messages about the self, and (d) significantly diminished attachment to various addictions (Bradley, 1997). The participants also reported healthier relationships with others, with better establishment of boundaries, improved self-care, and increases in intimate relations with themselves and others (Bradley, 1997). The participants also expressed a deeper understanding of their own spiritual nature (Bradley, 1997). All of these benefits for young and older adults may also have preventative

potentials for children and other healing.

Greenway, Martin, and Tyler (1995) conducted research interviewing 1,380 persons who went on a 2-week guided wilderness excursion to assess what *happened* to people in the wilderness. After Greenway et al. (1995) conducted a metaanalysis encompassing 700 questionnaires, 700 interviews, 52 longitudinal studies, and more than 300 personal reflections on wilderness trips that included poetry, myths, drawings, and stories, they documented preliminary statistics. Specifically, 90% of the respondents described an enhanced sense of being alive, with increased wellbeing, and energy; 90% stated that the experiences enabled them to stop an addiction (i.e., food, alcohol, or other substance); 80% found the return to their urban environment was, initially, positive; 77% described a major life change in personal relationships, employment, and lifestyle (38% remained consistent after 5-years); 17% of those studied stated they were still benefiting from the contemplative practices they learned on the trip (Greenway et al., 1995). In conclusion, there were many positive personal benefits (i.e., experiential, stress related, etc.) reported from the exposure to nature and potential benefits for the world population as well. The objective of this literature review was to examine how exposure to nature leads to a sense of connectedness with nature and other people as well as the therapeutic benefits of improved mood and affect.

Purpose Statement

The purpose of this literature review was to enable therapists to gain a deeper understanding of the importance of blending outdoor experiences with other therapeutic modalities. Towards facilitating the development of this understanding this review was developed to gather and document prior literature and research as well as the underlying

theoretical constructs regarding the use of such natural experiences as primary or adjunctive treatment. Prior research shows that wilderness does have healing qualities. Therapists can utilize these qualities of nature to augment the therapeutic process, developing clients' capacities and enriching their lives. The available literature documented inner and outer experiences that benefit from nature therapy. The outer experience encompasses topics such as self-esteem and self-concept, which contribute to human experience in the cognitive realm (Berman & Berman, 1994). The inner experience encompassed awareness of what it means to be alive, which contributes to the quality within the person as well as the connection to something greater than the individual (Berman & Berman, 1994). Finally, the interrelationship of the inner and outer experiences was documented to demonstrate how wilderness experiences might contribute to the development of individual's feelings of connection with and wonder about something greater than him/herself (Berman & Berman, 1994). This also encompassed how structured programs in nature foster positive change in clients. This highlighted the pertinence of mental health professionals developing sensitivity to the benefits of the natural world experience. This literature review was organized to show how being in touch with innate awe and respect for nature has positive effects for clients and also benefits the rest of humanity by preserving the planet for long-term survival. This literature review also explored the antithesis, showing how distress, depression and anxiety, are worsened by the increasing disconnect from the natural world as people embrace the technological advances of 21st century. Summarily, the literature review explores and combines existing theories and views within the fields of psychology, biology, philosophy, ecology, history, poetry, and ecofeminism. Three guiding questions

were posed to explore how nature and its integration within therapy can be beneficial. Specifically, this study of available literature was focused to address:

Research question one. What is wilderness therapy and how can it be used to benefit clients?

Research question two. What are the reported benefits of experiences with nature and how can they be used to benefit clients?

Research question three. How can relational psychology blend wilderness therapy with the philosophies of transpersonal ecology and ecotherapy practice to develop a comprehensive perspective of wilderness as healing to benefit clients?

Significance and Clinical Rationale

Being immersed in nature as psychologists we are trained to be accepting of clients' state of affairs while at the same time we are challenged to find ways in which we can increase their individual sense of well-being. Psychologists help others to cope with the anxiety and pressures that are involved in daily living in contemporary society. However, the literature seems to have few studies that explore how the natural world can be potentially healing and restoring.

We are left questioning why the psychological field has commented so little about our connection to the natural world and its healing potentials. We do not know whether some of the illnesses that effect North American society (i.e., stress, depression and anxiety) are exacerbated by the disconnect from the natural world. It is not yet documented how mental health fields can become more sensitive to the benefits of the natural world, to help us heal ourselves and the planet in its current status. We must identify means for facilitating the therapeutic process of healing in nature, by establishing

standards for *ecotherapy* (i.e., psychotherapy using the relationship between the natural world and human beings) (Clinebell, 1996) and *wilderness therapy* (i.e., the use of nature experiences for therapeutic purposes) (Russell, 2001).

It is time to adjust the lens and expand our minds to look beyond therapy as being only indoors, constrained to the 50-minute hour, and under artificial lighting. There is growing awareness and research that the therapeutic relationship ought to incorporate aspects of nature for general mental health purposes. Mental health therapy is in a unique position to provide therapy outdoors to counter society's unhealthy trend and impact client's lives. Focusing research efforts on wilderness therapy and ecotherapy may also encourage regulatory change and public policy dedicated to increasing access to nature, reducing pollution, and overcoming the effects of environment inequality particularly among low socioeconomic populations (Strife & Liam, 2009). As noted by Benjamin Franklin, there is a prevailing North American philosophy that encourages conquering nature; this has left a generally inadequate contemporary understanding regarding the practical experiences of what it means to live in nature in a harmonious and mutually beneficial manner (Strife & Liam, 2009).

This literature review can increase awareness of an integrated, cherished, and insufficiently studied occurrence by capturing the experiential components and healing qualities of wilderness experiences while synthesizing the documented findings of prior experimental research. There is a need to reevaluate what it means to find nature healing. This will facilitate identification of the conditions and interventions that foster positive outcomes. This may be viewed as foundational work for future longitudinal study addressing the lasting benefits of wilderness therapy and of the positive experiences of

being in nature as a whole. It was anticipated that the information presented herein would contribute to the existing body of qualitative and quantitative research to stimulate inquiry regarding the ways nature and wilderness could augment mental health services as well as engaging laypeople with an enthusiasm for the healing effects of our natural surroundings.

CHAPTER II: METHODOLOGY

Research Questions

The methods proposed for this study were driven by these guiding research questions:

Research question one. What is wilderness therapy and how does it benefit clients?

Research question two. What are the reported benefits of experiences with nature and how does it benefit clients?

Research question three. How can relational psychology blend wilderness therapy with the philosophies of transpersonal ecology and ecotherapy practice to develop a comprehensive perspective of wilderness as healing that benefits clients?

Organizational Strategies

In the first part of the critical survey of the literature, the work of a variety of wilderness psychologists, behavioral psychologists, cognitive psychologists, social workers, and architectural literature was explored in order to gain a conceptual understanding of the outer experiences of wilderness as healing and how this applies to the human and nonhuman environment. The clinical research project began with the history and origins of wilderness therapy, and led into treatment needs that are popularly used today for special populations that included youth at risk, and women. Following this, an exploration of ecological social work, therapeutic benefits of natural settings in hospitals, and the cognitive benefits of wilderness outings were examined. Based on the reviewed literature, it seemed that wilderness therapy and wilderness outings were accepted for their potential to improve self-esteem, self-concept, and self-mastery.

In the second part of the critical survey of the literature, the work of transpersonal ecologists, transpersonal psychologists, philosophers, deep ecologists, ecological psychologists, and child psychologists was examined in attempt to explore the essence of the inner experiences of wilderness. The review of the literature suggested that wilderness experience fostered an awareness of something greater than oneself that indicates we are a part of the planet, and that our wellbeing is dependent upon the planet's wellbeing. Ultimately, these processes reveal that nature is equally important as humans. As well, nature in some aspects can be seen as inherently healing; however, this healing can only be expanded and enhanced to the extent that we are able to experience our own psychological integration of the unacknowledged parts of self, which Jung (1958) refers to as our *shadow*.

A conclusion was drawn from the literature that suggested a balance of outer and inner experiences of wilderness as healing maximizes the benefits of both. The experience is not simply outer or inner; instead the two combined, were asserted to be more powerful than either one alone. Finally, the researcher offered recommendations for further research encompassing the proposed effort to consider more carefully other aspects of wilderness that might contribute to healing that were not discussed in this study. These recommendations were largely based on gaps in the literature. This researcher drew from a wide variety of disciplines in the clinical research project. This was necessary, given the limited availability of peer reviewed materials addressing this topic. The concept of wilderness as healing, and the field of wilderness therapy are both relatively new phenomena.

Data Sources and Procedures

The primary resources for the literature review were retrieved from web-based search engines and databases including The Canadian Ministry of Health and Ministry of Children & Family Development Health and Human Services Library; EBSCOhost's Academic Search Premier, PsycARTICLES, PsychINFO, SocIndex, PsycEXTRA; ERIC; Proquest Psychology Journal Database, Psychology and Behavioral Science Collection and Digital Dissertation, and GreenFILE databases. The physical libraries at Argosy University San Francisco Bay Area campus and the University of California, Berkeley were used. The relevant journals searched were all peer reviewed. All pertinent studies were reviewed for validity and reliability using standards for evaluating research as suggested by Pan (2007). The Google and Scholar Google search engine and books from 1958 to the present were used. There were no limits set on publication dates of the material. Reference sections of the reviewed literature were also studied for additional related material. The findings from the gathered research were examined for their pertinence to the research questions. As the material was collected, studies were labeled and categorized according to related themes. The most relevant themes were given priority for examination. The key terms used in this research study reflected the concepts utilized in this study.

The following terms and concepts were used to locate contemporary studies: ecopsychology, ecotherapy, transpersonal psychology, transpersonal ecology, ecology, deep ecology, meaning, wilderness therapy, ecofeminism, spiritual experience, nature, environmentally-focused psychology, phenomenology, consciousness, adolescent, family involvement, family systems, residential treatment programs, women, wilderness, self,

psychological development, containment, relational psychology, attachment, object relations, psychological integration, philosophy, history, self-concept, self-esteem, connectedness, groundedness, psychologically restorative, awe experience, wilderness rapture, mystical experience, collective unconscious, child, healing, mother earth, green space, optimal experience, humanistic psychology, peak experience, hospital settings, and childhood experiences.

The methodology utilized was adapted from a *grounded theory* approach.

Researchers who use this methodology do so with the intent of discovering the meaning of an experience (Pan, 2007). Grounded theory in general is an approach that derives a theory from a variety of data. This approach has been used in qualitative research to facilitate a natural outpouring of phenomena to emerge (Glaser & Strauss, 1967).

Grounded theory is based on the collection of content, in this work via the literature review, which is followed by a systematic analysis to identify common or unique themes that arise throughout the data. Herein, the common and unique themes were compiled to answer the guiding research questions in a manner that explained how the prevailing theories of nature and wilderness experience can be used within contemporary clinical models. Although grounded theory was not precisely utilized in this clinical research project, its fundamental principles were applied as a guideline for the research.

Limitations and Delimitations of the Study

Given that this project was a comprehensive survey of the literature and critical analysis, the researcher did not conduct any quantitative or qualitative research to support the findings of the study. Issues of accuracy, the truthfulness of the accounts, and the accepted outcomes of the qualitative studies examined may limit this survey of the

literature. The inner experience of wilderness as healing is subjective in nature. Therefore, the experience may not always facilitate a clear, logical, or vivid verbal description. Essentially, childhood recollections of previous encounters with nature are selective abstractions that limit this process. The outer experiences of wilderness therapy among special populations might not be generalizable in any way beyond those populations examined in the current literature.

The focus was on empirical and therapeutic literature and there may be other streams of religious, theological and perhaps, philosophical work that converge on similar themes. The comprehensive survey of the literature and critical analysis looked at psychological meanings and interventions. However, the divide between psychology and mainstream American religious thought is worth considering. Certainly there have been well known American authors who have attempted to bridge this gap, however, this goes beyond the scope of this comprehensive survey of the literature and critical analysis.

The researcher's ability to examine, analyze, and interpret the studies, may also limit this study. The review of the literature in this scholarly research project used techniques derived from grounded theory (Glaser & Strauss, 1967). This process allows for more subjective assessment than statistical analysis and can be a source of researcher bias. This bias may have confounded the process of interpreting the data. The researcher was aware of this bias and monitored this throughout the process.

Regarding childhood experiences, the researcher chose to consider the available research exploring Kleinian *object relations theory* and infant attachment associated with care for the natural world (Chawla, 2007). Research has not contemplated contemporary relational psychodynamic theory and its application to the care of people using or

drawing upon the natural world. Furthermore, there was scant available research specifically addressing cognitive behavioral therapy in wilderness therapy treatment, though the research alluded to this with treatment by looking at cognitive restructuring of participants. Given the dearth of cognitive behavioral research involving wilderness as healing, the researcher chose to focus on aspects particular to psychodynamic principles and humanistic psychology in order to gain a deeper understanding of the inner experiences of wilderness. It was proposed that other researchers should conduct quantitative and qualitative studies to advance the foundational base for this research.

Definition of Terms

Connectedness. Connectedness refers to the felt identification with the experience of another or a sense of empathy shared with others. Bowlby (1969) defined *attachment* as a lasting psychological connectedness between human beings.

Deep ecology. Deep ecology is concerned with problems of ecological equality in human relationships with nature (Naess, 1973). All life forms have intrinsic value that contributes to the flourishing of human and non-human life in the world.

Ecofeminism. Refers to a social movement that regards the oppression of women and nature as interconnected (Plumwood, 1993).

Ecopsychology. Refers to the relationship between the natural world and human beings (Roszak, 1992).

Ecotherapy. Ecotherapy is the application of ecopsychology to psychotherapy (Clinebell, 1996).

Groundedness: Refers to a dynamic state of the person that includes the sense of pleasure, confidence, and wonder resulting from a deepening connection with the natural

world, and domesticated community of a person's local neighborhood and untouched wilderness environments (Rozsak, Gomes, & Kramer, 1995).

Nature. In the most general sense, nature is equivalent to the natural world, the opposite of the physical, material and cultural world.

Nature deficit disorder. Refers to the cognitive, emotional, and physical costs of human estrangement from nature, as it chiefly applies to children in their developmental years (Louv, 2005).

Peak experience. Refers to

Feelings of limitless horizons opening up to the vision, the feeling of being simultaneously more powerful and also more helpless than one ever was before, the feeling of ecstasy and wonder and awe, the loss of placement in time and space with, finally, the conviction that something extremely important and valuable had happened, so that the subject was to some extent transformed and strengthened even in his daily life by such experiences. (Maslow, 1964, p. 52)

Projective identification. Refers to the condition when a person cannot identify and/or deal with a certain feeling and, therefore, projects this feeling onto another person so as to be able to learn to deal with this in an abstract and removed manner. Once the person learns from the other how to deal with that feeling, the person begins to own the feeling, now manageable for them. (Klein, 1946)

Relational psychology. Refers to a school of thought that emphasizes and focuses on the connection and the psychic space between things and between people as being of primary concern.

Restorative. Refers to a state where one feels a renewed sense of functionality and capability. Kaplan and Kaplan (1989) referred to a restorative environment in which “the recovery of mental energies and effectiveness are restored” (p. 22).

Shadow. Refers to a Jungian term to describe the unrecognized and/or unacceptable parts of a person that remain repressed (Jung, 1958).

Thru-hiker. Refers to a backpacker who completes a designated trail from end to end (Urban Dictionary, 2012).

Transpersonal ecology. This term refers to a blend between transpersonal psychology and deep ecology (Besthorn, 2001).

Transpersonal psychology. Refers to a school of psychology that focuses on the spiritual side of the human psyche. This is what is known as the fourth force in psychology.

Wilderness. An outdoor place consisting largely of wildlife within sufficient distance from urban life that suggests a sense of being away from it all. Wilderness and nature have been used interchangeably to refer to a natural area that contains plants, forest, wild animals, rocks, beaches, within an environment that has not been significantly changed by human impact.

Wilderness rapture. There is no accurate definition that exists in wilderness psychology that describes the powerful inner effect of nature on the human psyche. However, Cumes (1998) suggested this term to describe a transcendence of the dualities and the conflictual aspects of the modern western life, leaning towards a state of balance that leads to a feeling of unity of all things around them and a genuine altered psychic state.

Wilderness therapy. A consistent definition has yet to be defined in the literature. However, this term generally refers to an experience in a wilderness environment for purposes of psychotherapy (Russell, 2001).

Synonymous terms. For the purposes of this study, the terms *client* and *patient* were used interchangeably to denote a person who received mental health treatment. Similarly, the terms *mental health therapist* and *psychotherapist* were used interchangeably to refer to a clinician who provides mental health promotion services.

CHAPTER III: CRITICAL SURVEY OF THE LITERATURE

Evolution of Wilderness Therapy

Wilderness therapy began at the turn of the century as tent therapy, and has since then been closely tied to the Outward Bound experiential educational movement that was started in the 1940s by Kurt Hahn. Since the early 1900s, positive benefits were reported in the *American Journal of Insanity* through the use of tent therapy (Williams, 2000). Wilderness therapy stemmed initially from Outward Bound programs, which were originated by German educator Kurt Hahn during World War II, to prepare British seamen for the challenges of war (Kimball & Bacon, 1993). When the war was over, Hahn's focus shifted to clinical intervention (Kimball & Bacon, 1993). Outward Bound arrived in the United States where it became popular and spread across the country; this was particularly prevalent in the American West where there were more opportunities for outdoor experiences. People soon discovered that this kind of program was of good use to adolescents with a variety of behavioral and psychological problems (Davis-Berman & Berman, 1994). The Outward Bound model was based on the philosophy that people learned best when doing something physical, rather than becoming a passive observer (Davis-Berman & Berman, 1994). As a result, the program became experience-based and was performed in the outdoors (Davis-Berman & Berman, 1994). Another reason for having an Outward Bound program was based on the idea that

wilderness was the best arena for clients because it was unfamiliar; therefore, total engagement in the wilderness environment was necessary to maximize outcome benefits.

Wilderness therapy is a form of experiential therapy or adventure therapy. There are some important commonalities and distinctions between wilderness therapy and adventure-based therapy. The essential difference was that adventure-based therapy did not need to be conducted in a wilderness setting (Gillis & Gass, 2004). Wilderness therapy was also distinct from a wilderness experience (Davis-Berman & Berman, 1993). However, included in wilderness therapy is a wilderness experience that involves a therapist and clients.

Wilderness therapy has grown from working with delinquents to working with mild brain injured clients, rape and incest victims, developmentally disabled clients, and psychiatric inpatients (Cason & Gillis, 1994; Gillis & Gass, 2004; Lemmon, LaTourretter & Hauver, 1996). Wilderness therapy programs were designed for transferability of skills to everyday life through reflective techniques.

The origins of the therapeutic component started in hospitals where clients with contagious tuberculosis needed to be isolated from other sick patients in the hospital (Williams, 2000). Placing the patients in tents outside on the hospital grounds achieved this goal. The staff soon discovered the patients who lived in the tents quickly recovered both psychologically and physically (Williams, 2000). Later, staff tried this out with other sick patients and found similar results (Williams, 2000). The staff took note of this; subsequently, this awareness formed the basis of wilderness therapy programs for youth-at-risk (Davis-Berman & Berman, 1994).

Kimball and Bacon (1993) posited that before the industrial revolution, youth

were necessary for the economic survival of the family unit. The youth worked up to ten hours per day doing various chores needed for the survival of the family. After the industrial revolution, children in urban settings were not required to work towards satisfying their families' needs for survival, and, as a result, children began to spend their time engage in passive pursuits (Kimball & Bacon, 1993). School also taught them to be passive learners, since information tended to flow in one direction from the teacher to the student (Kimball & Bacon, 1993). In contemporary society, youth are offered many challenges, yet many are hardly equipped to deal with those challenges of life, such as self-confidence, judgement, self-discipline, and responsibility, which is necessary as an adult to navigate in today's ever more complex world (Kimball & Bacon, 1993). Many adolescents find themselves lost and confused because they do not have well-defined roles in society. They try to fit in somewhere as they mature from a youth to an adult (Kimball & Bacon, 1993).

Wilderness therapy challenges youth who have not yet had the opportunity to develop prosocial values (Gass, 1993). Wilderness therapy programs were designed to address the sense of helplessness, feelings of low worth, and passivity many youth experience (Miles, 1993; Kimball & Bacon, 1993).

The goal of wilderness therapy is to foster in the client feelings of confidence, perseverance, and empowerment (Davis-Berman & Berman, 1994). The researchers explained that wilderness therapy programs were designed to confront unresolved personal issues and to change life patterns. These researchers concluded that wilderness therapy programs are effective in achieving these goals. More research is needed to determine how long these changes can be sustained.

Hattie, Marsh, Neill, and Richards (1997) found four premises regarding the functioning of wilderness therapy. First, wilderness therapy sets challenging and specific goals, and it designs the goals to become achievable (Hattie et al., 1997). Second, experiences in the wilderness environment develop self-assessment skills and help to foster new ways of coping and of understanding the world (Hattie et al., 1997). Third, clients are taken away from their usual routine, are held responsible for their actions, and are expected to deal with the consequences of their decisions (Hattie et al., 1997). Fourth, a great deal of trust and acceptance is fostered by a shared wilderness experience that involve a high degree of feedback for the clients from their peers, their therapists, and their environment (Hattie et al., 1997).

Developing a Coherent Definition for Intervention

Typically, wilderness experience programs have been defined as “organizations that conduct outdoor programs in wilderness or comparable lands for the purposes of personal growth, therapy, rehabilitation, education, or leadership/organizational development” (Friese, Hendee, & Kinziger, 1998, p. 40). More than 500 programs have been identified throughout the United States aligned with this broad definition (Friese, 1996).

Russell (2001) highlighted a lack of a consistent definition of wilderness therapy in the literature and suggested an integrated definition that captures the essence of wilderness therapy practised currently. Since the 1950s, there have been numerous definitions documented to define wilderness therapy (Russell, 2001). Wilderness therapy has been defined interchangeably as adventure therapy, wilderness experience programs, challenge courses, ropes courses, and sometimes, boot camps (Janofsky, 2001; Krakauer,

1995). A consistent definition is needed for a variety of reasons. Among these are the need to (a) provide a focus for future research, (b) educate the public about wilderness therapy, (c) guide administrators and practitioners to identify the key features of their programs necessary for maximal client outcomes, (d) clarify the types of services offered as well as who they are best designed for, and (e) assist in establishing safety standards for provision of care and progress monitoring (Janofsky, 2001; Russell, 2001). Other benefits of developing a consistent definition include increasing the ability to collect statistics to guide best practices and compare to industry norms. This would facilitate the formation of industry trade organizations targeting national accreditation and state licensing.

Popular Definitions and Models

The *Hahnian* approach to education, “based on the Outward Bound model, is an experience-based, value-centered program that is oriented towards the development of character and maturity” (Kimball & Bacon, 1993, p. 13). This approach is characterized by a group process where there is no formal group therapy offered and challenges are incrementally increased that are low in actual risk and high in perceived risk. This is usually conducted in a wilderness setting; yet, any unfamiliar environment will suffice (Kimball & Bacon, 1993). The therapeutic techniques implemented are journal writing, self-reflection, and individual psychotherapy. The length of the program varies according to funding and the population served. The wilderness therapist needs no special degree and there is no specific targeted therapeutic approach.

Powch (1994) put together a model that has become popular for women. This model modifies the Outward Bound approach in an attempt to address the specific needs

of women. Powch disagreed with Kimball and Bacon (1993) and argued that wilderness therapy needed to occur in a wilderness environment and must incorporate a specific therapeutic intent. Powch explained that the program must introduce an element of fear or anxiety and allow for clients to confront and master these emotions. As a result, the group ought to have an experience of trust, which develops from the concrete and immediate feedback within the wilderness environment. Consequences are naturally occurring simply by being in the natural environment (e.g., becoming wet if not wearing a raincoat, etc.). There are no licensed staff and no therapeutic interventions specifically guiding the experiences, beyond following the Outward Bound model (Powch, 1994).

The Davis-Berman and Berman (1993) definition of wilderness therapy encompassed the creation of an empirically based theoretical foundation for wilderness therapy. Davis-Berman and Berman (1993) used traditional therapeutic techniques led by master's-level counselors. The clients were evaluated by clinicians at the end of the intervention, to generate an individualized treatment plan (Davis-Berman & Berman, 1993). Pre-intervention, the candidates were screened for appropriateness for psychotherapy. The activities were geared to address specific problem behaviors. The use of a wilderness area was not mandatory, but highly suggested.

Bandoroff and Scherer (1994) created a model based on family systems theory that is modified into a wilderness setting. These researchers offer group and individual therapy. Clients grow by experiencing natural consequences for their actions (Bandoroff & Scherer, 1994).

Crisp (1998) defined his model based on a study of different mental health programs that utilize wilderness therapy and adventure-based interventions. This model

offers generic group therapy, family systems theory, and an interpersonal behavioral model (Crisp, 1998). The underlying belief was that the clients ought to experience natural consequences in a wilderness setting. Two formats emerged: (a) *wilderness based camping* that uses minimal equipment in an isolated environment and (b) *expedition travel* comprised of self-sufficient small groups (Crisp, 1998). Additionally, the therapists were clinically supervised.

Based on all of these different approaches to wilderness therapy, Russell (2005) suggested that an integrated approach was necessary for developing a definition of the practices. Subsequent to a review of the literature, Russell (2005) suggested three critical components were necessary for all treatment modalities, specifically, a theoretical basis, expected outcomes, and guidelines for practice. This is still evolving. Currently, the trend of implementation has revealed an eclectic model that is based on cognitive behavioral therapy reliant on a family systems approach (Russell, 2005). These approaches enable clients to access and deal with difficult emotions and problematic behaviors. Threaded through all wilderness therapy programs is the use of natural consequences. Rites of passage are often performed because they are common to all cultures (Russell, 2005). An example of a commonly used ritual is time spent alone in the wilderness for self-reflection and insight building (Russell, 2005). Metaphors relating to the individual's family of origin are also common (Russell, 2005). Communication and interpersonal-skill building are also common. The identified components have become part of the integrated definition of the wilderness model of treatment (Russell, 2005).

Russell (2001, 2005) proposed that an integrated wilderness therapy definition

should incorporate all therapy processes that facilitate interpersonal growth and self-reflection. Russell (2001) suggested that the therapy should be performed by qualified professionals and incorporate an evaluation process at termination. Russell (2001) argued that the model ought to incorporate both the use of base camp and expedition travel within the definition. The goal of the wilderness therapy model is to address presenting issues. In addition, the clients are expected to be transitioned back to the family where newly learned behaviors can be addressed and reinforced within their home environment. Russell (2001) stressed that individual and family therapy ought to be facilitated by qualified therapists.

Further, the design should encompass efforts that will help the family understand how they came to be the way they are. The program has individual treatment plans and routine medical check-ups to monitor overall health. Treatment effectiveness should be formally evaluated (Russell, 2001). Finally, aftercare programming ensures changes attained during program attendance are maintained post-treatment (Russell, 2001).

Wilderness therapy is still viewed in the mental health profession with great reservation because of vague treatment approaches and an inconsistent research base (Russell, 2001). An integrated wilderness therapy model would provide the guidance and structure necessary to evaluate the effectiveness of wilderness therapy. Such efforts would convince professionals and the public about the validity of this therapeutic approach.

Therapeutic Considerations

Russell (2005) posited that outdoor behavioral treatment programs were well-suited for clients with depressive disorders and substance use issues. Outdoor behavioral

treatment has also been shown to be effective for reducing the emotional and behavioral symptoms of adolescent clients (Russell, 2003; Russell & Phillips-Miller, 2002).

Although there are a number of studies that have looked at the outcomes associated with outdoor behavioral programs, few researchers have looked specifically at adolescents with substance abuse and depressive symptomologies (Greenbaum, Prange, Friedman, & Silver, 1991).

Motivation. Youth who enter treatment programs usually have low internal motivation. Although their drug and alcohol use may have had terrible consequences, typically, they have not attained the level of impact that inspires change; as a result, these teens are often coerced into treatment (De Leon, Melnick, & Kressel, 1997; Melnick, De Leon, Hawke, Jainchill, & Kressel, 1997). Low motivation becomes a significant challenge for therapists as it limits potential for client change (Prochaska & DiClemente, 1992). The working relationship between the client and therapist is even more crucial to treatment outcomes and is often a predictor of treatment outcomes (Blanz & Schmidt, 2000). Russell (2005) predicted that the working alliance would become the most pivotal factor that determines client outcomes to treatment. Wilderness therapy, when delivered with sound ethical principles borrowed from a variety of theoretical orientations, can significantly improve overall emotional health.

Spirituality. Rigney and Bryant (1995) examined the attributes and conditions necessary for a therapist to engage a client in a wilderness experience. They outlined criteria for attaining spirituality and parameters the therapist can use to guide the client through the wilderness experience. Specifically, Rigney and Bryant (1995) proposed that theorists such as Abraham Maslow, Carl Rogers, Carl Jung, and Victor Frankl had

discovered that a sense spirituality lies within the individual. Therefore, emerging from the use of these psychologists' processes of self-discovery was a process of spirituality seeking that became the foundation for the theories of practice in wilderness therapy.

Graduate psychology programs offer many therapy-oriented program modalities. However, when graduate students go through the rigors of attaining a psychology degree, there is little focus spent on developing spiritual interventions. Three reasons for this were documented by Rigney and Bryant (1995); specifically:

1. Therapists tend to view the study of the spirit as ambiguous and unscientific.
2. Therapists have mixed feelings about spirituality, which becomes a barrier to introducing clients to this area.
3. Many therapists fear projecting their values onto the client.

Ultimately, the inability to develop a consistent view that can be distinguished from the therapists' personal spiritual views, limits the ability to offer supports to the client within this realm (Rigney & Bryant, 1995).

The study of spirituality requires a certain amount of open mindedness to something greater than oneself. In Stephen Mitchell's (1988) translation of the *Tao Te Ching*, he stated "when people lose their sense of awe, they turn to religion. When they no longer trust themselves, they depend upon authority" (p. 10). Therefore, it is necessary to reconsider the seminal theorists' perspectives of spirituality.

Much of Carl Jung's (1966) work focused on spirituality. His endeavors exploring spirituality in the psyche was the primary distinction regarding that set Jung apart from Freud (Rigney & Bryant, 1995). It was noted that Freud did not want to discuss these matters or even consider establishing a position (as cited in Rigney &

Bryant, 1995). Yet, Jung purported that a person who does not spend time looking at his or her own sense of spirituality would become psychologically out of balance (as cited in Rigney & Bryant, 1995). Jung (1966) stated that people experience trouble if they neglect their own spiritual side. In order to have real insight, Jung (1966) asserted that all humans needed to have access to their sense of spirituality.

Abraham Maslow (1962) also believed that spiritual growth was essential to the healthy development of the human being. Maslow (1962) believed that people who have high levels of self-actualization are able to attain high levels of spiritual awareness. Those who are highly self-actualized are able to love, receive love from others, and enjoy their accomplishments at work. Jung's (1966) construct of *spiritual awareness* is similar to Maslow's (1962) *self-actualizing person*.

Sense of self. Carl Rogers (1961) believed that the goal of therapy is for an individual is to become more him or herself. In this sense, Rogers (1961) valued creating an environment of freedom wherein an individual is able to explore alternatives. Within this environment, the individual receiving treatment is able to drop the facade held, mask worn, or roles played. Rogers (1961) suggested that the person would develop the ability to validate him or herself, no longer needing to look externally for a sense of validation. Rogers (1961) viewed the fully functioning individual as a person who had developed a higher form of consciousness. This kind of person lives according to his or her own values, rather than seeking external feedback or confirmation to attain fulfillment and a sense of worth (Rogers, 1961).

Victor Frankl (1958) explained that when a person does not attend to ones inner needs, the needs of the human spirit will be lost in empty space. Frankl (1958)

discovered within the concentration camps that a person would die prematurely if he or she did not have something within that acted like a guide for something to look forward to. The person must have meaning in his or her life to continue to survive. This meaning must be something bigger than the individual person. Constructs for both faith and hope unite in this sense of self.

Rigney and Bryant (1995) proposed three views that the therapists must consider in order to maximize their potential to develop a sense of spirituality. First, the therapist must feel the need for personal growth, which requires a tremendous amount of courage on behalf of the therapist (Rigney & Bryant, 1995). Similar to exploring the wilderness experience, Carl Jung (1966) also shared this view of personal growth as the primary means for helping others. According to Jung (1966), the therapist is the technique and there are no other techniques necessary beyond mastering one's own inner self. The therapist should not struggle for external wisdom to help others (Jung, 1966).

Safety. Metaphorically, therapists can only guide the client into the depths of the experience of life as far as they have ventured themselves. In addition to recognizing the need for the individual's personal spiritual growth, the therapist must recognize the essential functions of the spirituality. The second point is that developing spirituality is intended to create a safe, sacred space for clients to explore their individual issues (Rigney & Bryant, 1995). This sacred space is both physical and metaphorical (Rigney & Bryant, 1995). It was posited that the therapist must create a space that allows clients to feel safe to explore their soft sides without fear of harm from exposure (Rigney & Bryant, 1995). The third point made by Rigney and Bryant (1995) was that the vehicle for such growth occurs through active engagement in the wilderness experience. Rigney

and Bryant (1995) noted that the wilderness experience operates on many levels simultaneously, which access a universal experience that transcends cultural barriers. They posited that this was universally pursued because the wilderness experience is a journey leading to personal growth. Further, time is suspended as the journey is in the current moment and is also accessed as a future occurrence.

Synthesis. Rigney and Bryant (1995) highlighted two crucial factors of the wilderness experience. First, the wilderness symbolizes a time of transition from one level of awareness to another, which can be quite frightening (Rigney & Bryant, 1995). As Jung (1958) stated, “there is nothing more frightening than confronting the denied parts of the self” (p. 173). Parts of the self that have been ignored or have been denied provide opportunities for the development of self-awareness. Finally, the wilderness experience is the cognitive aspect of reconsidering the individual’s place in the world and revising already formed expectations of the world (Rigney & Bryant, 1995). As our personalities grow and become increasingly complex, the wilderness can provide ongoing lessons that contribute to developing personal meaning of self and the world around us.

Serving Specific Populations

Ingeborg and Asle (2006) explored an innovative approach called *Integrated Wilderness Therapy*, which they used with patients diagnosed with Avoidant Personality disorder. These researchers discovered that there were some minor improvements in the patient’s mental health and some advantages of performing integrated wilderness therapy over other forms of traditional therapy. As in music, the researcher suggests that one does not listen to music to wait to hear the last note of the composition. One has an appreciation for the music in the moment and in anticipation for what is coming next.

Both are to be considered at the same time for a full experience. Similarly in the wilderness experience.

Kimball (1988) recommended utilizing the wilderness as a valuable tool for evaluating clients under stressed conditions outside the norm of indoor, clinical life. Ewert (1988) documented results for reducing trait anxiety in clients as a direct outcome of attending Outward Bound. Gibson (1979) discovered that although wilderness therapy programs were less known, they did produce powerful, lasting positive effects for mental health. Gibson (1979) attributed these successes to the increase in social interactions that are demanded of clients in a wilderness setting. Gibson (1979) specifically found that these pushed the limits and challenges those clients with avoidant personality disorder who are notorious for avoiding social situations. Clients with avoidant personality disorder typically exhibit low self-confidence in social situations.

The results reported by Ingeborg and Asle (2006) indicated that by integrating wilderness therapy within the practices for an inpatient group, therapists were effective in treating more impaired patients in a shorter amount of time than when treating the control group with traditional indoor therapy. The outcomes were about the same; however, the integrated wilderness therapy accomplished this in a shorter amount of time. The advantage to this might be that more clients can be served within the same timeline, with the same outcomes derived from therapy in more traditional indoor settings (Ingeborg & Asle, 2006).

Treating Women

Historically, wilderness therapy started with the Outward Bound model, which was not constructed with women in mind (Powch, 1994). Since the inception of Outward

Bound, many other programs have emerged. Wilderness therapy for women is a new but promising field (Powch, 1994). The focus for these interventions is the mastery a set of skills that can enhance self-esteem and a sense of control. The potential power of this approach extends much further when it is connected with the feminist spirituality movement and the concept of reclaiming the earth as a place within which woman can reside (Powch, 1994). This connection between feminist spirituality and the environmental movement is growing.

Therapeutic interventions using wilderness therapies for survivors of incest, rape, and battery, and subsequent application toward the empowerment of women was established in the mid-1980s (Powch, 1994). There are three general components making wilderness therapy crucial for these purposes (Powch, 1994). The experience has to be in a wilderness setting that involves task oriented activities as well as a spiritual component (Powch, 1994).

Wilderness therapists must be trained by mental health therapists familiar with the stages of recovery and need to have an awareness of the client's status within the recovery process. The therapist needs to create a safe containing experience for clients to feel comfortable in the wilderness. The clients ought to be informed of the purpose of the activities and need to have a sense that they can accomplish the necessary tasks towards recovery (Powch, 1994). The wilderness therapist must be skilled working with clients who are easily moved to dissociative states (Chu & Dill, 1990).

Wilderness therapy puts clients in a position akin to self-defense exercises, which places clients in situations that activate their physiological responses to danger (Herman, 1992). This is done in order to rebuild clients' abilities to self-soothe and establish a

degree of control over their own emotions and body, giving them a sense of power (Herman, 1992). This is a pertinent attribute of wilderness experiences that is evidenced in only a few other treatment modalities.

The wilderness therapy environment works to give clients immediate feedback in the evidence of success or failure of decision-making and a sense of empowerment (Herman, 1992; Powch, 1994). Studies have shown that wilderness therapy has helped to increase clients' assertiveness, has contributed to a reduction of power that others' expectations have over clients, has bolstered self-esteem, and has facilitated reductions in trait anxiety (Ewert, 1988; Marsh, Richards, & Barnes, 1986). Studies of the effects of Outward Bound concluded that there were significant and enduring changes in entrenched personality traits that were not commonly found in the personality literature (Marsh et al., 1989).

Also identified was a spiritual component that extended beyond the tasks, beyond overcoming one's fears, and beyond becoming more self-sufficient (Powch, 1994). The wilderness setting serves as an inherent active agent in the spiritual healing process, not only for women, for all humans (Powch, 1994). Wilderness therapy professionals use a feminist spiritual perspective as the basis for their ideologies (Powch, 1994). This feminist perspective is associated with indigenous religions and ancient tribal customs (Stone, 1979). This view sees the Goddess as existing within all life and, therefore, views all nature as sacred (Stone, 1979). The perspective of the Goddess refutes many existing stereotypes and embraces views of womanhood that have been accepted by both men and women (Stone, 1979). Many healing qualities have been demonstrated when using wilderness therapy for abused women. Some of these qualities specifically include

opportunities to connect with others, gain self-awareness, relax, and learn to take care of themselves (McBride & Korell, 2005). Wilderness therapies relying on feminist spirituality are growing independently from the Outward Bound movement; however, there is to date insufficient peer-reviewed literature exploring the effects of these approaches (Powch, 1994).

Since the 1980s, an increasing number of researchers have stressed the need to work in harmony with nature in order to provide an emotionally satisfying therapeutic experience (Mason, 1987). A sense of power and mastery is gained by women when they can successfully connect with others (Mason, 1987). Women tend to be more relationally focused than men (Mitten, 1994). As such, women are more interested in developing a relationship with nature rather than dominating and controlling it (Mitten, 1994). Both approaches, development of mastery and interrelationship, can become beneficial for the healing process (Davidson & Connor, 1999; Mitten, 1994).

Wilderness therapy has been used with survivors of both sexual assault and incest (Asher, Huffaker, & McNally, 1994), women with body image issues (Arnold, 1994), single mothers on welfare (Aubrey & MacLeod, 1994), and women with psychiatric disorders (Kessell, 1994). In their extensive review of the literature, McBride and Korell (2005) did not find any peer-reviewed articles specifically addressing services for abused women. Some of the common experiences of abused women include dependency, emotional numbness, feelings of low self-worth, and learned helplessness (Tuel & Russell, 1998). Abused women also are often challenged to make healthy choices for themselves (Burgess & Roberts, 2002; Davidson & Connor, 1999). Wilderness therapy provides an antidote to these problems, by fostering perceptions of personal power and

capability (Bacon & Kimball, 1989).

Wilderness therapy helps women to focus on solutions rather than failings, to question their negative self-talk, and to be open to the possibility of living fulfilling lives, with or without a partner (Mason, 1987). Women also have the chance to shift the focus on the self in terms of concentrating and being more aware of the capabilities of their bodies (Mason, 1987). The power for women to have enjoyable social connections has significant and long-lasting impact on their self-awareness and self-esteem, and it serves to contradict their beliefs that they are hopeless in a life of anxiety, fear, and denial (Schnarch, 1997).

Wilderness therapy, like any other form of therapy, is not for everyone. However, a discussion with women to assess whether wilderness therapy might be a good fit could be a worthy endeavor. Wilderness therapy has not only been shown to be successful for women, but other Outward Bound models have also been tailored to meet the needs of visually challenged individuals, individuals suffering from rheumatoid arthritis, and at-risk youth. These approaches may be integrated within any wilderness experience developed for a woman.

Solo Excursions for Women

Wilderness outdoor programs are offering solo excursions as a wilderness rite of passage founded in the opportunity for personal transformation (Angell, 1994). Most cultures and religions encourage venturing into the wilderness on solo trips during times of personal transition, pursuing growth, and seeking guidance (Angell, 1994). These solo ventures are suggested as a way to connect with the Spirit (Angell, 1994). Some of these ventures are becoming well-known (Angell, 1994). These include the *reflective solo*, the

survival skills solo, and the *Vision Quest*, which all provide time alone in the wilderness (Angell, 1994). Women have used the solo as an opportunity to become empowered within the current male-dominated society (Angell, 1994).

The reflective solo involves a person retreating into the wilderness, which provides time for solitude. During the solo experience, the person focuses on life problems while holding themselves as their own best teachers. This is mainly accomplished by journaling (McIntosh, 1989). During a solo, women are directed to focus their attention on nature and their own inner world (McIntosh, 1989). Women get a chance to observe and to face their fears to decide what new attitudes and actions they want to incorporate in their own life (McIntosh, 1989). This is analogous to moving beyond the experience of their own inner circle from which they operate. These women have a chance to face their demons and rid themselves of personal angst they wish to let go. Women use their connection with nature as a guide to determine how best to move onto the next realm of their life (Foster & Little, 1989).

The survival solo is an active journey designed to simulate the basic needs of survival. During this solo, women build their own shelters from materials in the wilderness (Foster & Little, 1984). Fire is made using a bow drill, hand drill, or flint and steel; but not any simple contemporary devices, such as a match or lighter (Foster & Little, 1984). Women gather food found in nature and they drink from natural water sources (Foster & Little, 1984). Satisfying their own survival needs can be an empowering experience as they learn the skills necessary for personal survival. These skills give insights that can be taken back to where they normally live and can be applied to work, to school, or to interpersonal relationships (Strenba, 1989).

Another type of healing experience is the Vision Quest (Foster & Little, 1984). The Vision Quest comes from the Latin term that means to seek or ask. Nineteenth century Euro-American anthropologists used this to name a certain rite of passage as practiced by Native American Indians (Foster & Little, 1984). The Lakota term for this ceremony is called a *hanblecheya*, which translates roughly as “crying for a vision” (Foster & Little, 1984). Herein, the woman goes without food or water for four days and nights, while praying for answers and guidance from the Supernaturals (Foster & Little, 1984). General Lakota suggested finding a natural place where there is lots of greenery, going almost naked with minimal clothing, and taking only a blanket and a sacred pipe. The soloist is directed to empty the mind, listen to the spirits of the wind and clouds, stay awake throughout the entire time as best as possible, and to wait for a vision that speaks to her specific life purpose (Erdoes & Lame-Deer, 1992). Some people also suggested not bringing any books during this time of transition to reduce potential distractions from the goal of getting in touch with the Powers Above (Eaton, 1978). Elk (1990) suggested that one really needs this time to themselves. He suggested that this time takes patience, endurance, courage, and alertness. This is a way to show trust in the Gods (Elk & Lyon, 1990).

The wilderness solo is when a woman goes out in the wilderness by herself for a short time in the natural world (Angell, 1994). This might be as simple an activity as car camping or bush camping and taking short or extended trips during the day. This might also involve something as simple as taking some time away from the group on a camping excursion to spend time alone, but close by the group (Angell, 1994). This kind of solo trip works well for those who do not want to spend a lot of time preparing and it can just

be used as a way to relieve the stresses of daily living (Angell, 1994). Many adaptations can be made to individualize the approach to serve specific needs and reflect the individual's wilderness skills.

The solos generally allow women to focus on the natural world and can significantly lessen the anxieties of dealing with the present (Angell, 1994). Nature can give answers to eternal questions. Being in nature helps the individual realize the connectedness shared with others and all that exists in the world (Angell, 1994). The solos help us to feel less alienated and more connected to the world (Angell, 1994).

Often women feel unsupported in a male-dominated society (Angell, 1994). During the wilderness solo experience, women have the chance to recognize their own abilities and apply them in a meaningful way to whatever challenges they face. This has transferability to daily living. In a male-dominated society, there is little value placed on the emotional, intuitive, and subjective characteristics with which women are familiar (Shaef, 1981). In nature, we find a gender neutral existence. During the solo journey, women can begin to feel empowered as they bring out the intuitive part of themselves. As a woman's intuition is substantiated, her self-esteem improves (Shaef, 1981). She becomes self-reliant in her isolation, making moment-by-moment decisions which affect her quality of life and her experience (Shaef, 1981).

Everyone has a warrior energy within; women need to be given the opportunity to develop this (Stone & Winkleman, 1989). When this is suppressed, the woman feels vulnerable and unprotected, making her dependent and disempowered (Stone & Winkleman, 1989). Instead of feeling victimized or responsible in relationships, she can become a navigator in challenging situations (Stone & Winkleman, 1989). One way to

define empowerment is recognizing the way to increase one's personal power by being centered or in touch with one's body, actions, emotions, and thoughts (Kohn, 1991). Solos provide a path and a sacred space to help clients internalize and reflect on their learning (Kohn, 1991). This promotes integration of the experience for transferability of learning to scenarios outside of the wilderness experience.

Carl Jung (1958) described sacred space as a place of mystery, awe, and power. This is not a space an individual can exist in continually, because it lacks the necessary resources for daily living. Sacred space is a place where transformation occurs. Jung (1958) proposed that by spending time in wilderness, specifically in this sacred space, women learn to trust their perceptions and their intuitions of and within the outer world.

As women spend longer amounts of time in nature and engaging in meditation, there is a transformative experience that occurs at transpersonal level of awareness (Drengson, 1990). The identification with the self grows beyond the boundaries of the ego, and this process is brought together with the whole of nature and the universe (Drengson, 1990). This allows women to reconcile frictions between the self and the community and accept the world as it is.

There is also a healing quality in speaking aloud our thoughts that shame us. Speaking aloud allows women to project their shame to the natural world (Roads, 1987). This will facilitate those thoughts to be released, such that the thoughts no longer bind them, and the feeling of shame is lessened (Roads, 1987). The restorative and curative effects of nature may not be thoroughly measurable quantitatively.

Treating At-Risk Youth and Adolescents

Identity development is the central focus during the adolescence. Poor attainment of identity development during this phase leads to identity confusion (Erikson, 1968)

Satisfactory identity development is challenged by substance abuse, high divorce rates, adolescent pregnancy, the ever increasing phenomenon of *latch-key* adolescents, as well as families that move frequently (Santrock, 1995). All of these lead to behavioral problems and delinquency of youth (Santrock, 1995).

Numerous theorists and practitioners have concluded that adolescents tend to benefit from action-oriented activities in combination with talk therapy. Hanna, Hanna, and Keys (1999), encouraged mental health therapists to work with adolescents in modalities that use physical activity as part of the therapy. This motivates adolescents to be spontaneous in their self-disclosure (Hanna et al., 1999). Adolescents who lack effective communication skills tend to use displacement as a defense mechanism in therapy (Hanna et al., 1999). Adventure-based therapy facilitates the use of more mature defenses in adolescents (Fletcher & Hinkle, 2002)

There are several characteristics to remember when contemplating use of wilderness therapy for adolescents. First, the therapeutic environment requires a level of trust that is easily attained by having the adolescent engage in activities that promote physical trust (Herbert, 1996). Once this is established, emotional trust is easier to develop (Herbert, 1996). Second, group goal-setting is important to facilitate positive change and growth (Corey & Corey, 2000). This facilitates teen's understanding of the reality that they are not isolated and fosters positive decision-making. Lastly, challenge and positive stress, or *eustress*, are powerful motivators for change and growth (Selye,

1965). Wilderness therapy programs facilitate individual change by containing the therapy process in a wilderness environment. Conquering or mastering the challenges of the wilderness empowers the individual to embrace an array of therapeutic benefits.

Wilderness therapy is analogous to projective tests by way of watching what the adolescent experiences (Kimball, 1988). The picture of the adolescents' inner thoughts and feelings are evident in how they deal with tasks and respond to demands within the natural environment (Kimball, 1988). Transference issues are played out on the therapist by the adolescent (Peterson & Nisenholz, 1995). Examining transference is an effective way to take note of the adolescent's unresolved issues (Peterson & Nisenholz, 1995). Wilderness therapy enables adolescents to play out their issues with authority figures in an intense environment that can speed up the process of reconciling their unresolved issues with their parents (Peterson & Nisenholz, 1995).

Wilderness therapy is a volunteer program that facilitates "challenge by choice" (Sweeney, 1998, p. 2) that is akin to Gestalt and Reality therapy (Sweeney, 1998). Wilderness therapy also contains elements of Adlerian therapy that stresses holism, encouragement, and natural consequences (Sweeney, 1998).

Interpersonal skills in wilderness therapy are learned through experiential-based groups (Corey & Corey, 2000). The intense environment of the wilderness setting and the low therapist-to-client ratio allows therapists to closely monitor adolescents' behavior and also facilitates the use of immediate interventions that promote awareness (Corey & Corey, 2000). Awareness is necessary for change (Corey & Corey, 2000).

Group therapy provides adolescents with a sense that they are not alone in their experience, and it fosters universality, group cohesiveness, altruism, and vicarious

learning (Corey & Corey, 2000; Fuhriman & Burlingame, 1990; Kaul & Bednar, 1978; Yalom, 1985). Adolescents typically report universality being the most important and the most remembered experience in wilderness groups (Butler & Fuhriman, 1983). Group therapy also offers therapists opportunities to use Gestalt techniques and psychodrama to help adolescents to focus on the here-and-now rather than on some future or past event (Butler & Fuhriman, 1983). This helps clients learn to resolve conflicts in the moment and to scaffold their successes (Butler & Fuhriman, 1983).

During the last 27 years, there has been a dramatic increase in adolescent sex offenders (Eger & Kilby, 1998). This has led to the development of specialized treatment programs geared to reducing recidivism (Eger & Kilby, 1998). Although most treatment programs for sex offenders are similar in their approach (e.g., an understanding of the offending cycle, disclosure, and victim empathy), there are differences in the way each program is delivered (Lambie & Seymour, 2006). Adolescents who are sex offenders are also involved in therapy that is mandated, creating an environment of conflict rather than cooperation (Lambie, Hickling, Seymour, Simmonds, Robson, & Houlahan, 2000). This creates an environment wherein the adolescent lacks motivation for involvement in the treatment (Bernet & Duncan, 1999). This tends to create a challenging environment for the therapist and the client. Often, shame and embarrassment issues are profound in these situations (Bernet & Dulcan, 1999). There is often denial and minimization, used as ways to deal with personal shame and embarrassment; these tend to impede the therapy process (Bernet & Dulcan, 1999). Interventions that can overcome these issues are beneficial; specifically, wilderness therapy can be an effective way to overcome these difficulties (Lambie et al., 2000).

Wilderness therapy has been found to be successful in increasing adolescent self-esteem, self-efficacy, and internal locus of control (Hattie et al., 1997). Wilson and Lipsey (2000) found that a wilderness therapy experience had moderate effect on school attendance one year after attending the wilderness program. Lambie and Seymour (2006) stated that the necessary components of most effective wilderness therapy programs includes challenge, structure, a primary peer group, reflection, mastery, and the wilderness environment itself.

Alternative Classroom Perspectives

Modern counseling courses are focused primarily on serving the individual and are based on the assumptions of the scientific method applied within Western philosophies (Clinebell, 1996; Hillman & Ventura, 1992). These assumptions are based on materialism, mechanism, and an objectivist view that separates the natural world from human beings (Clinebell, 1996; Hillman & Ventura, 1992). A growing number of practitioners, writers, and researchers have been exploring the relationship between nonhuman environments and human beings (Clinebell, 1996; Hillman & Ventura, 1992). Specifically, these researchers are focusing on how humans are destroying the very environment they live in (Clinebell, 1996; Hillman & Ventura, 1992). The ramifications and applications for ecopsychology and counseling practices are now being considered (Clinebell, 1996; Hillman & Ventura, 1992). Ecopsychology is the unification of psychology and ecology (Roszak, Gomes, & Kramer, 1995); ecotherapy is the practical application ecopsychology to psychotherapy (Clinebell, 1996). Ecopsychology questions the dominant western worldview of psychology predominantly embracing therapy and western views of science (Roszak, 1992).

Ecofeminists, ecologists, scientists, historians, and poets have suggested that people in leadership positions have the opportunity to take a closer look at what is motivating people to perpetuate the grand scale environmental destruction of the planet (Bateson, 1979; Berry, 1988, 1999; LaChapelle, 1984; Macy, 1983; Snyder, 1990). Abram (1996) suggested that there is a destructive worldview that still lingers, which asserts that we must conquer nature and take hold of it. This way of thinking assumes that humans are separate from nature (Abram, 1996). This suggested that western language itself is abstract and does not do a good job describing events in terms of direct experiences of our senses (Abram, 1996). In other words, many humans have detached themselves from the experiences of the natural world. Conversely, many cultures around the world see the very nature of reality in relational terms (Deloria, 1994; Garrett & Garrett, 1996; Mander, 1991; Suzuki & Knudtson, 1993). Ancient peoples and indigenous cultures around the world present a reality of life that is nonlinear, multidimensional, and interconnected (Deloria, 1994; Garrett & Garrett, 1996; Mander, 1991; Suzuki & Knudtson, 1993).

More writers are suggesting that psychological and spiritual health is related to a healthy planet (Clinebell, 1996). Recent studies such as Garrett and Garrett (1996) convey the belief that being in nature for even a small amount of time is calming, it gives mental clarity, improves focus and attention, and revives emotional and physical vitality. Practicing ecotherapy enhances one's ability to experience the mutuality and the reciprocity of the natural world, and the manner in which we become a part of this cycle (Garrett & Garrett, 1996). Indigenous cultures can give us lessons and can heighten our sensitivity to and appreciation of the natural world (Abram, 1996).

Davis and Atkins (2004) conducted a qualitative study within an ecotherapy course taught at Appalachian State University. The core concepts of the course were designed to educate students about the healing powers of the earth, personal healing, and on the relationship these constructs maintain within ecotherapy. Davis and Atkins (2004) explained that some of their course goals were designed to advance students'

1. awareness of their environment,
2. exploration of principles of healing and health within the worldview of nature-based cultures,
3. participation in therapeutic practices that foster the development of the human psyche as an interconnected part of the web of nature, and
4. examination of what it means to possess sanity and mental wellbeing, from an environmental and cross-cultural perspective.

Within the course, Davis and Atkins (2004) took their students on a weekend retreat. As a culmination of the indoor course, students spent the weekend in the Great Smoky Mountains National Park in the Cherokee Indian Reservation. Davis and Atkins (2004) noticed that by having the students use stones, participate in moon ceremonies, build fires, and study traditional Cherokee teachings, the students benefitted from the calming effect of nature. The course taught students how modern counseling philosophies focused mainly on the individual and how ecotherapy was a viable alternative for those who may want to find meaning in alternative therapeutic approaches from around the world (Davis & Atkins, 2004).

Another popular wilderness therapy program for youth is *The Eckerd Wilderness Educational System*. This program was designed to provide wilderness therapy to at-risk

youth displaying social and behavioral problems. The Eckerd program has been in existence since 1968 and holds a long-standing history of success transforming at-risk youth so they can become functional participants in their families of origin (Bacon, Milner, & Nisbet, 1997). At the Eckerd program, counseling staff participate in a mandatory one-month program to learn the basics of the philosophy (Bacon et al., 1997). Youth are referred by various state agencies and then screened for commitment to the voluntary program, which they must commit to for a twelve-month duration (Bacon et al., 1997). Each day, clients are given tasks to complete in a group format so they learn interpersonal problem solving skills (Bacon et al., 1997). When conflicts arise between clients, they are put together to solve problems for that day; the objective is that they will learn how to work together and learn from each other's processes (Bacon et al., 1997). At the end of the day, in the large group, a campfire meeting is held; the whole group evaluates what the teens accomplished and the challenges they encountered, to plan for the next day's activities (Bacon et al., 1997).

The Eckerd wilderness therapy program focuses on youth strengths and builds upon those through positive reinforcement, recognition, and praise (Bacon et al., 1997). The counselors work to help clients to generalize their newfound skills to home, school, and community settings (Bacon et al., 1997). Loughmiller (1965) found that clients learn best when they are offered constructive criticism in a positive fashion. At the end of the twelve months, clients are transitioned to classrooms and learn to flourish in a classroom environment.

Throughout the 1960s and 1970s, several programs were developed for at-risk teens that were set in both residential hospitals and day treatment camps (Gibson, 1979).

Studies of wilderness therapy camps in the 1970s documented positive outcomes in self-concept for youth with emotional and cognitive disturbances (Gibson, 1979). It was concluded by Gibson (1979) that “while many of the empirical studies are of questionable validity due to methodological shortcomings, it is clear that wilderness programs can and do result in positive change in self-concepts, personalities, individual behaviors, and social functioning of the program participants” (p. 30).

Wichman (1991) documented similar results regarding the effectiveness of wilderness therapy camps for reducing conduct disorders and antisocial behaviors. Castellano and Soderstrom (1992) have also documented similar results that sustained at least a single year reduction rate of delinquent behaviors. Wilderness therapy camps offer a successful alternative for education in mainstream classrooms (Bacon et al., 1997). The imbalanced teacher-student ratios in the public school system often mean that youth with behavioral disturbances are not given the attention they need (Bacon et al., 1997). Wilderness therapy programs offer an intensive experience that foster increased levels of student responsibility and development of a positive self-concept (Bacon et al., 1997). These traits are recognized as pertinent for psychosocial and cognitive development for youth in school and within their future societal roles.

Family Systems Approach

From a family systems approach, Russell (2001) described how wilderness therapy was designed to be of benefit to clients. Most of the programs reviewed by Russell (2001) utilized a variety of therapeutic models that drew upon behavioral, cognitive, and experiential approaches. The goal of these programs was for youth to be integrated within a family systems approach so that family functioning is restored

(Russell, 2001).

Wilderness therapy provides a unique situation for clients that is not normally attainable in indoor settings (Russell, 2001). Spending time in the wilderness had the potential to help clients to see that everything is interconnected. The vast openness of the wilderness provides the client with an unusual sense of freedom not normally experienced in urban settings (Russell, 2001). The wilderness condition creates a sense of vulnerability that is humbling and particularly needed among youth who have a sense of grandiosity without recognition of the consequences (Russell, 2001). It was also stated that wilderness had a cleansing effect because the client was immersed in a healthy environment (Russell, 2001). In this environment, a client had the ability to gain a sense of appreciation of the origins and interrelationship of all things. The wilderness could also provide clients with fewer distractions and more focus (Russell, 2001). It was posited that wilderness therapy promoted the development of self-concept, as well as the necessary knowledge and skills for communication, coping, behavioral change, and family relationships (Russell, 2001).

Harper and Cooley (2006) looked at the potential benefits of family therapy following a 21-day wilderness therapy program. Several confirming studies revealed that wilderness therapy showed promising results for adolescent therapy programs (Clark, Marmol, Cooley, & Gathercoal, 2004; Russell, 2003). There has not been much research examining family systems and wilderness therapy as the intervention (Wells, Widmer, & McGoy, 2004). Several well-founded studies have documented family-focused interventions as being superior for treating the family than working only with the *identified patient* (Cottrell & Boston, 2002). The 21-day study was used to identify and

examine the changes that occurred in adolescent and family functioning over time (Harper & Cooley, 2006). From this exploration, the researchers derived understanding of the mechanisms of action that provided constancy for these changes after treatment (Harper & Cooley, 2006). Further, the researchers considered what recommendations for future investigation were warranted within wilderness therapy treatment for the family (Harper & Cooley, 2006).

The study specifically considered 252 adolescents enrolled in a 21-day wilderness therapy program designed to treat substance abuse issues and coinciding problematic behavioral and emotional issues (Harper & Cooley, 2006). The family component of the wilderness therapy program was to introduce a one-day pre-treatment and a one-day post-treatment multifamily program (Harper & Cooley, 2006). The remaining 19 program days involved just the adolescents and the therapists. After the 21-day treatment program was completed, clients were asked to complete a behavioral inventory (Harper & Cooley, 2006). Summarily, the adolescents showed marked improvements on items addressing communicating with parents, anger management, following house rules, emotional problems, substance use, and participation in chores (Harper & Cooley, 2006).

Harper and Cooley (2006) posited that wilderness therapy was an effective treatment modality for adolescent mental health treatment that evidenced lasting changes necessary within family system dynamics. More studies need to be conducted exploring how family systems issues can be addressed in wilderness therapy programs to promote lasting changes in family functioning (Harper & Cooley, 2006). The dynamics of short-term wilderness interventions should be considered for their potential generation of

lasting changes within family systems treatment; minimal peer-reviewed works addressed this area of treatment.

Ecological Social Work

Native Americans have long understood that our connectedness with the earth is essential to our livelihood (Park, 1996). The policy of the National Association of Social Workers (NASW) on environmental issues underscores that the understanding of the dynamic relationship of the person within their environment can provide social workers with unique understanding of the impact of environmental abuse on the mental and physical health of humans (NASW, 1994). This policy stresses that social workers ought to recognize their own responsibility for the preservation and conservation of nature and its resources and (Park, 1996). Furthermore, NASW asserts that these practitioners ought to take a leadership stance in these areas as they had the potential to foster change (Park, 1996).

Wasatch Fish and Gardens runs a fishery coop and community garden in the Salt Lake City region. Here at-risk youth grow flowers, vegetables, and herbs as an on-the-job training experience and self-learning tool. At Wasatch, flower and vegetable gardens are seen as a metaphor to discuss the laws of the seasons, harvest, and investments (Park, 1996).

Sojourn is another organization in the Salt Lake City area that offers at-risk youth wilderness experiences. Park (1996) explained that Sojourn used these programs to help youth see nature and view themselves in nature. The objective is developing the teen's perspective that nature is something greater than the individual, something that has a purpose, and something they can become immersed in (Park, 1996). At Sojourn, clients

have an opportunity to learn wilderness skills, to overcome their fears, and to develop and foster personal insights as they traverse the experiences within the natural environment (Park, 1996). The director of Sojourn has noticed that clients who engage in their program see improvement in their communication skills, increases in their confidence in relationships, development of their sense of compassion with others, and bolstered self-esteem (Park, 1996). Inspiration for ecological social workers can come from transpersonal ecologists, transpersonal psychologists, and ecopsychologists (Park, 1996).

Germain (1976), professor of social work at Columbia University, was a pioneer in the field of ecological social work. Germain (1976) saw the importance of considering space and time when searching for potential in human beings. Germain (1976) believed that nature provided a supportive environment that spurred creative growth and adaptation. She emphasized that humans look to nature on a transpersonal level without dominating and/or exploiting nature. The perspectives of united or disparate elements within nature are dependent upon the cultural view of the world that is embraced (Germain, 1976). Eastern philosophy embraces a poetic unity of organisms; Western philosophy views the boundaries that demarcate distinct organisms and celebrate their individuality. These views impact the way we treat nature.

Field theory and quantum physics are aligned with Germain's (1978, 1979) conceptions of nature. Wheatley (1992), a well-respected writer stated, "it is important to shift focus - to look behind the small, discrete, visible structures to an invisible world filled with connections" (p. 49). When we view nature in a nonlinear fashion, nature's complexities become more apparent and provide us with new ways of understanding the world.

As such, the dualism between mind and body also dissolves and the use of nature as therapy will come into the foreground in people's thoughts and feelings. By looking outside at the natural world, we can see what lies inside of us. It is necessary to question what is truly seen when a human sees a beautiful landscape. The belief purported in this study is that it is possible to see the insides of ourselves. The more we come to understand that nature is a mentor and as a source of inspiration, the better prepared we will be to transform the client's life and our own lives with the bountiful resources of the Earth.

Healing Gardens

During the 1980s and 1990s, a considerable amount of research revealed that nature has positive and lasting effects on patient health (Hartig, 1993; Ulrich, 1981, 1984, 1992). In 1994, the first systematic study evaluating the connection of nature to health took place in the San Francisco Bay Area (Francis & Marcus, 1992). The results showed that people enjoyed being in natural surroundings during their hospital stay as it represented something completely different to them than what being in a hospital meant (Francis & Marcus, 1992). These same participants preferred fresh air to air conditioning, rounded shapes typical in nature as opposed to squares and straight lines, and they sought places to be alone rather than confined areas with groups of patients (Francis & Marcus, 1992).

During the late 1990s, several books were published devoted to the discussion of how to transform outdoor spaces in nursing homes and hospitals to become places of healing (Gerlach-Spriggs, Kaufman, & Warner, 1998; Tyson, 1998). Since then, in 2003, the first postgraduate course in Healthcare Garden Design was offered at the School of

the Chicago Botanic Garden (Marcus, 2007). Here, landscape architects were trained specifically to work in this developing field (Marcus, 2007). The School of Chicago taught the distinction between healing and curing to facilitate the design of healing spaces (Marcus, 2007). Healing does not equate with a cure. However, healing gardens are acknowledged as effective as they help patients muster healing resources, provide staff with needed retreats, create a soothing place for visitors, help patients come to terms with their illness, provide a setting for horticultural therapy, and facilitate stress relief for patients and staff (Marcus, 2007). Connections to gardens can be emotionally soothing as well as promoting cognitive clarity (Marcus, 2007). Patients and visitors in garden areas (e.g., Good Samaritan Hospital in Portland, Oregon) have labels on their plants that stimulate conversations between staff, visitors, and patients (Marcus, 2003).

During the early 1990s, the concept of *patient-centered care* became popular and hospitals became aware of the distress that high-rise hospital buildings were creating (Marcus, 2003). Slowly, a shift from the institutional style of buildings gave way to interiors and exteriors that were pleasing (Marcus, 2003). The healing gardens were an extension of this property design (Marcus, 2003, 2007).

Ulrich (1999) discovered that the expense of the healing gardens were miniscule compared to the overall costs of construction; however, the benefits were exponentially higher. Through his research, Ulrich (1999) proposed several advantages to having healing gardens in healthcare facilities. Some of the main advantages he noted were (a) reduction of patients' pain; (b) increased quality of life for terminally ill patients; (c) reduction in distress for visitors, staff, and patients; (d) decreased levels of depression and anxiety amongst staff, patients, and visitors; (e) greater patient satisfaction; (f)

greater staff job satisfaction; (g) reduced cost due to patients leaving sooner; (h) increased mobility among patients; and (i) improved directional finding.

Marcus and Hartig (2006) suggested that environmental psychologists, landscape architects, and medical professionals have noticed that gardens provide healing to patients in hospitals. Patient access to gardens reduces healing time patients require post-surgery (Ulrich, 1984). Patients who had a window to look outside to view the natural landscape recovered sooner than those who had a brick wall facing them (Ulrich, 1984). These same patients reported fewer symptoms and required fewer analgesics (Ulrich, 1984). Since this landmark study, an increasing number of relevant observational and experiential studies have been conducted with similar results (Ulrich, 1984).

One such hospital found similar results in the Good Samaritan in Portland, Oregon. This hospital has patient-specific gardens with plants and walking surfaces for physiotherapists to work with patients on rehabilitation after they had brain and spinal injuries or strokes (Marcus, 2007). The health professionals noticed that when clients were outside, they sensed the time spent on their exercise routine went by faster (Marcus, 2007). Similarly, at the Rusk Institute of Rehabilitative Medicine in New York City, play gardens are established where children with brain and spinal cord injuries can work to regain their fine motor skills. They found that the children who played outside recovered sooner and wanted to play longer (Marcus, 2007).

In an attempt to make a distinction between a general garden and one that is established to facilitate healing of patients, healthcare professionals and landscape architects have come up with the specific term *healing gardens*. The healing garden is generally intended to improve one's health. Terminally ill patients have commented

about the value of a hospice garden as a place for reflection and contemplation. Also, visitors who are not ill view the gardens as an important place for grieving and restoration (Marcus, 2007). In this manner, the healing gardens offer respite from the caring demands placed on family by those who are ill. The gardens have become equally restorative for the patient, family, and staff (Marcus, 2007). Many day and residential facilities in the United States currently have gardens for patients and caregivers (Marcus, 2007).

Marcus and Hartig (2006) asserted that more landscape architects should be hired to create healing gardens and more environmental psychologists, with knowledge of this theory and practice, should be hired to help evaluate the effects of human contact with nature in health settings. Marcus (2007) purported that more research was needed to better understand how gardens in hospitals could help patients recover. Further, Marcus (2007) indicated that he believes health professionals, landscape architects, and psychologists should not wait for further studies; he suggests that there is enough evidence to warrant the continuing establishment of gardens in healthcare settings.

Cognitive Benefits

Berman et al. (2008) presented research based on the *Attention Restoration Theory*, which demonstrates the inherent value of nature as a method for improving cognitive functioning. The theory posits that nature provides the kind of stimulus that holds the individual's attention in a *bottom-up* fashion, which allows for *top-down*, *direction-attention* abilities to be refueled (Berman et al., 2008). Bottom-up attention, as Berman et al. (2008) explained, is the background (e.g., engine noise) that occurs in urban environments that still captures our attention and requires focused attention to

overcome (e.g., ignoring billboards, avoiding heavy traffic, etc.). This required effort makes urban environments less restorative (Berman et al., 2008). In contrast, top-down environments involve focusing and capturing our attention in subtle ways that provide a resolve of conflict by looking at features in the environment (e.g., looking at a sunset, watching the trees sway, etc.) (Berman et al., 2008). Attention restoration theory posits that directed attention is restored by interactions with nature (Berman et al., 2008). Directed attention is the cognitive mechanism that provides opportunity for restoration to occur (Berman et al., 2008).

Attention Restoration Theory is based on prior research that demonstrates the separation of attention in terms of voluntary and involuntary attention (Berman et al., 2008). Voluntary attention is held and maintained by cognitive-control processes (Berman et al., 2008). Involuntary attention is motivated by stimuli that are inherently interesting and capture curiosity (Berman et al., 2008). Involuntary attention is described as human's captured fascination watching a sunset; whereas voluntary stimulation typically involves events in the external environment that serve as distractors from the peace of the environment (Berman et al., 2008).

Other Environmental Views

Ecopsychology

Ecopsychologists appreciate transformation of experience through encounters with and in nature (Mest, 2008). In explanation of the evolution of this term, Mest (2008) referred to *eco* as emerging from the ancient Greek word *oikos* (as cited in Liddell & Scott, 1995), which specifically refers to a house, dwelling, room, abode, chamber, or part of a house. For Mest (2008), this construct means much more than a house or a

dwelling. The eco- represents the place where the individual has come from, the place where the individual finds him or herself, and the place where the individual will be. Conceptually, home for Mest (2008) holds all humans' struggles, hopes, comforts, dreams, and longings.

According to Mest (2008), ecopsychology offers humans much more than just a way to observe the relationship between Nature and Mother Earth. Mest (2008) suggested that therapists need not limit the practice of ecopsychology to a client and his or her relationship with Mother Earth; rather, the therapist and client can talk about their home as it appears to the client. Dialogues in psychotherapy often revolve around the place the client considers home to be. Mest (2008) suggested home is not simply a place, it is an experience. People feel at home when they speak in their native ways of interacting and styles (Mest, 2008).

Mother Earth appears in ecopsychology as the home all humans inhabit and as the place in which all creatures and plants live (Mest, 2008). Ecopsychology is interested in the way humans occupy Mother Earth, the home we all share (Mest, 2008). Human beings experience Mother Earth not only in terms of their bodies but also in the ways they experience their own language (Mest, 2008). When looking at what home is to humans, Mest (2008) stressed that one cannot properly address Mother Earth and humans without considering the language humans use and the way they sense Mother Earth.

Ecopsychologists frequently reference the work of Maurice Merleau-Ponty (1968), which developed the view of human beings as intimate participants in the world they live in. Merleau-Ponty (1968) explained that this was relevant, whether the individuals addressed are aware of this or not. For Merleau-Ponty (1968), the world is not

separate from us in an objective fashion. Each of us is responsible for the world we live in and the ways in which we construct our home is demonstrated in the way we live in it (Merleau-Ponty, 1968). The way we live in our home is not separate from the way we live our life on Earth.

Gomes (1998) postulated that the term ecopsychology has recently emerged in the awareness of the professional and lay communities. The reason for this trend is because people feel a sense of disconnectedness from the world around them (Gomes, 1998). People seek to understand and want to feel a renewed sense of connection to and healing from the natural surroundings (Gomes, 1998). Ecopsychologists use psychological theories and observations in nature to transform societal world views (Gomes, 1998).

Theodore Roszak (1992), a pioneering force in ecopsychology, proposed that our most intimate personal experiences are influenced by the outer world of cultural and political processes that have, in part, created the environmental crisis we see today. Roszak (1992) suggests that the ways in which we relate to the outer world are expressed through our states of mind. The inner and outer world balance, reflect, and support each other (Roszak, 1992). In this way, the state of one's psyche and the state of the environment are united (Roszak, 1992). One affects the other. A sick psyche will influence the environment and a sick environment influences the psyche (Roszak, 1992). Healthy ecosystems are connected to healthy psyches (Gomes, 1998; Roszak, 1992).

Western urban-industrial societies create a sense of disconnect from the natural environment and this leads us towards a lifestyle that is ecologically unsustainable (Gomes, 1998). Multinational corporations provide a single way of viewing things (Gomes, 1998). Coupled with their power to influence governmental laws, this

compromises the community and its ability to have meaningful influence upon the ways humans approach the care of the planet (Gomes, 1998). The centralization of power that corporations have over cultural diversity, create a monoculture, which adversely affects the diversity of the ecosystem of the planet (Gomes, 1998).

From an ecopsychological point of view, in order to effectively address human suffering, we must, simultaneously, address the ecological suffering that has been created by humans over the last century (Gomes, 1998). The more we can create a sustainable ecology, the more we can sustain a viable and thriving human culture (Gomes, 1998). The parts of our healthy ecosystem are inextricably linked.

Mest (2008) asserted that the home is a place for dreaming, intimacy, and familial and sexual relationships. Many transformative experiences occur within the human childhood experience (Mest, 2008). Home can be either Mother Earth or a condominium in a particular city; when the client speaks of *home*, it can be anywhere on Earth (Mest, 2008). Psychologists can benefit to expand the transformative experiences in therapy with clients by broadening their definition of what home means. Psychologists can broaden their ideas of the transformative power of what home means to the client by introducing the ecopsychological ways of viewing what home is (Mest, 2008). Thus, Mest (2008) suggested that the client's experience of home as a transformative place, in broad terms, is an ecopsychological place. Mest (2008) argued that although not all therapists can take clients out in nature, the therapist can incorporate this meaning of home even within the therapy office. In this perspective, the ecopsychological view of home is not only what it has been in the literal experience but what it can become and how we can develop it into a place of peace, protection, and growth.

Deep Ecology

Deep ecology was coined by the Norwegian philosopher Arne Naess in 1973. Naess described a deeper, more experientially-grounded theory about human nature by making connections between natural ecological systems and human development. Naess' (1973) philosophy extends beyond what he called *shallow ecology*, and moved into *deep ecology*. Shallow ecology is defined primarily by things like the examination of how humans have impacted the world in the industrialized world (Naess, 1973). Deep ecology is defined as problems of ecological equality in humanity's relationship with nature (Naess, 1973). Here, the diversity of all life forms have intrinsic value that contribute to the flourishing of human and non-human life in the world (Naess, 1995).

Deep ecology is influenced by a vast array of scientific, religious, and philosophical viewpoints (Besthorn, 2001). This includes (a) eastern philosophy, as described by David Suzuki, (b) the written works of Thoreau and Emerson, (c) First Nations traditions from the works of Luther Standing Bear and Black Elk, (d) the Eastern religious traditions of Zen, (e) radical scientific critiques of modern ecology outlined by Paul Shepard, (f) radial sociological critique of the dominant western worldview evident in the works of Martin Heidegger, and (g) the 1960s political activism of the Environmental Movement (Besthorn, 2001). Combined, these perspectives reflect the human expression of our connection with the ecology of our world.

Deep ecology has two commonly understood associations. The first refers to the deep ecology movement that speaks to ecocentric grassroots actions to ensure that a future ecosystem that is balanced. The second refers to the term deep ecology as a philosophy (Besthorn, 2001). There are several core concepts essential to deep ecology

(Naess, 1995). One such concept, as outlined by Naess (1995), is used to note that humans have the capacity for an expanded sense of self-consciousness. In this sense, it is argued that there is no real separateness between the human and nonhuman realm (Naess, 1995). This viewpoint is at the heart of the rationale for rejecting consumerism; we lose the association between what we have and how that constitutes who we are (Naess, 1995). The second core concept that Naess (1995) described is the notion of deep questioning. Here, Naess (1995) proposed, we are not limited to the scientific approach as the means through which we can understand phenomena. We must go deeper by questioning society's underlying assumptions (Naess, 1995). Naess' (1995) third core concept referred to biocentric equality. Biocentric equality states that all life forms have intrinsic value and have an equal right to reach their individual self-realization within the greater holistic self-realization (Naess, 1995). Natural nonhuman life forms have a usefulness that is not dependant on whether humans have a use for them (Naess, 1995). Thus, the capacity to understand, the obligation to question, and the essential value of all life forms are intrinsic to human understanding of the life experience, which can be deepened, most meaningfully, via our connection to and within the world around us.

Exploring one's ecological self is an ongoing discovery in gratitude, love, appreciation, learning, and compassion (Drengson, 1991). In the last ten years, there has been a growing connection between ecophilosophy and transpersonal psychology (Drengson, 1991). Deep ecologists have noted the connection between the process of psychological integration and a lessening of violence and exploitation aimed at Nature. They posited that to reach ecological consciousness, one has to move beyond one's

narrowly defined ego self, and move toward a larger ecological self (Devall & Sessions, 1985; Drengson, 1986; Fox, 1990; Naess, 1987).

Ecofeminists have noted to deep ecology theorists that ecologists have not commented on the sexual differences in our culture when considering the construction of the identity of the self (Kheel, 1991). Taking pleasure in opposites of gender means to note the differences in gender, and enjoying the interplay (Bly, 1988). Ecofeminists have posited that males generally develop their sense of identity by opposing what their mother and the feminine side represents (Drengson, 1991). Females, on the other hand, are not believed to develop their sense of identity through an oppositional process from their mothers (Drengson, 1991). Due to these conflicting values, men can become confused as they become a fully integrated adult in Western society (Drengson, 1991). As there are conflicting messages about the feminine side, males tend not to identify with the feminine side as a part of themselves (Drengson, 1991). Nature is often associated with the feminine side, and, as a result, men tend to treat nature as a resource or a commodity (Drengson, 1991).

Those aspects that remain hidden from us are called our shadow (Jung, 1958). Those aspects of ourselves that either feel uncomfortable or negative often result in a repression of emotions that as children we were not allowed to express; as a result, we do not feel safe to express them as adults (Jung, 1958). By grieving the aspects of the shadow and the emotions we did not feel safe to express as children, we are provided with an opportunity for an integrative process (Jung, 1958). The more we can acknowledge the emotions that were not safe to express, the more we can own those emotions, and become healthier individuals (Bly, 1988). The more shadow we carry with

us, the more we will project those emotions onto others (Bly, 1988). This is also a form of projective identification (Klein, 1946). Those emotions that we do not know how to deal with, we project onto others (Klein, 1946). This enables us to look at them objectively and learn to integrate and own emotions we disowned through the recognition of the feeling that exist (Klein, 1946). However, this can take many years and, in the meantime, we can do harm to our human and nonhuman world in the process (Bly, 1988). Although the shadow is a compensatory strategy, which is an expression of a healthy desire to return to wholeness, it leaves much room for harm (Bly, 1988).

The term *eating one's shadow* (Bly, 1988) is a process that helps us recognize where the sources of our own pain and suffering originate. This process of eating one's shadow is a progression of recognition and owning the disowned parts of the self (Bly, 1988). That self can, at times, be seen clearly by others, yet remains elusive to the individual (Bly, 1988). The healing of ourselves is critical to the healing of other human and nonhuman relationships including nature (Bly, 1988). When a person does bring ones feelings to the forefront and owns their own shadow, the person is effectively eating the shadow (Bly, 1988). This process allows for the beginnings of an integrated personality, and those who engage in this process become more receptive to inputs from the environment (Bly, 1988). A person who has become integrated and has eaten their shadow might seem threatening to others who have not, as they remind them of their own unresolved issues (Bly, 1988).

When one has been hurt as a child and was taught that it was unsafe to express emotions surrounding this hurt, it causes the birth of our shadow (Bly, 1988). Children repress feelings that they do not feel safe to express because the environment they are in

does not feel safe either (Bly, 1988). The environment does not feel safe because either the adults are unresponsive or the situation itself is threatening (Bly, 1988).

A person who grows up in a safe environment, both in terms of human and of nonhuman relations, is able to increase his or her circle of care by expanding in both the natural and human world (Fox, 1990). The ability to extend one's circle of care beyond the self is a transpersonal experience and process; this process is known as *transpersonal ecology* (Fox, 1990). Without having to come to terms with oneself, the self remains disintegrated, and the transpersonal can be overcome by underlying pathologies (Fox, 1990).

Deep ecologists have often expressed that care and respect for nature is not related to a code of ethics or moral axiom (Drengson, 1991). Care for nature grows naturally in humans through the process of realizing that the small ego self is contextualized within a greater ecological self (Drengson, 1991). Through this identification, we become increasingly able to identify and to act from a position that is larger than the self and that is, in fact, the larger self. What we are able to identify with, we are able to love, if we love ourselves (Drengson, 1991). Consider the environmental crisis; this is not a literal crisis of the environment, but an expression of a crisis in the aspects of our culture that we have created and that we have engaged in, daily (Drengson, 1991). We need to heal ourselves before we can heal our relationships with nature. This is akin to the process of psychotherapy. To heal ourselves and nature, we need to recognize our wild self (Bly, 1990).

Fox (1990) identified three forms of the transpersonal and ecological sense of *Self*. In the first form, a person who has a strong sense of self-worth is easily able to

practice extending his or her identifications from one's self to the greater ecological self, which is the focus of deep transpersonal ecology (Fox, 1990). If the person has a vague sense of self that is not well integrated and has a lot of repressed shadow material, the extension of identification could very well lead to pathological actions and/or processes (Fox, 1990).

The second form of personal extension of identification is with the ecological self (Fox, 1990). This process starts with people identifying themselves with their family, with their community, and then with their nationality, their place in the world (Fox, 1990). If the process of extension of identification stems from negative and often denied parts of themselves, then people will define and respond to their families and communities in oppositional ways (Fox, 1990). When the extension of identification leads to issues of cosmology, the person identifies themselves in a cosmological large picture of stories and events (Fox, 1990). If one's shadow has not been eaten, then the cosmos is seen more in terms of something that is depersonalizing and demeaning, and that then becomes theoretical and abstract (Fox, 1990).

The third form of extension of identification is encapsulated by honing in on the presence of everything around as something that is mysterious, that is creative, and that holds great loving power (Fox, 1990). If our healing process is complete and our shadow is eaten, we become mature beings and we enter into a place where we can engage in our life's work (Fox, 1990). This process further expands our sense of identification with human and ecological communities (Bly, 1990). Having eaten our shadow, we lose the temptation to have power over others and become equal participants in an evolving ecosphere (Bly, 1990). To practice transpersonal ecology is to live with a full sense of

our extensions of identification free of projection (Bly, 1990; Fox, 1990). In this way, nature is inherently healing to our self by extension that nature knows best and through knowing, with our hearts and minds, that everything is interconnected and interrelated.

Transpersonal Psychology

Transpersonal psychology has been called the fourth force of psychology because it moves beyond the first three psychological movements of Freudianism, Behaviorism, and Humanistic psychology (Robbins, Chatterjee, & Canda, 1998). Transpersonal psychology emerged shortly after humanistic psychology. Humanistic psychology started in the 1950s and 1960s, as a response to the somewhat pessimistic nature of Freudian and behavioral schools of thought. Freudian thought a client could only see one's interior consciousness as moving toward neurotic misery (Fox, 1995). Abraham Maslow (1962), an early pioneer in humanistic psychology, thought that behaviorists did not pay enough attention to the inner workings of human nature, while focusing on the mechanistic, external nature of human behavior (Kaluger & Kaluger, 1984). Psychodynamic paradigms were seen to have forgotten many of the good qualities of human activity, such as laughter, joy, rapture, and moments of self-transcendence (Kaluger & Kaluger, 1984; Maslow, 1971).

Starting in the 1960s and 1970s, transpersonal psychology began by expanding on the previous theories of human consciousness. Insights drawn from the humanistic perspective have since been expanded upon to include transpersonal psychodynamic theory, existential philosophy, and the study of alternate states of consciousness (Cowley, 1993; Robbins et al., 1998). Transpersonal psychology emphasizes a view of human consciousness that is wider in area than conventional Western notions of psychology.

This view is an expression of a process that is developmentally oriented and is a statement of the notion that the self moves beyond one's view of oneself (Robbins et al., 1998).

There are three core concepts in transpersonal psychology. These concepts are challenging to categorize, in part because they stem from such a wide array of traditions, bridging and uniting Eastern spiritual practice and Western psychological theory (Cowley, 1993; Cowley & Derezotes, 1994; Fox, 1995; Robbins et al., 1998). The first concept involves how expanded consciousness is defined. Transpersonal psychological theory shares the belief that human nature ought to be conceptualized in ways that extend beyond conventional space/time and ego boundary constraints (Walsh, 1984). Thus, humans are to be seen as people who are capable of seeing humanity beyond the body, transcending separateness to see that all things are interrelated in a unity (Walsh, 1984). Human existence becomes trapped in egocentric confinement when blind to mystical, spiritual states of consciousness (Walsh, 1984). If one is trained from a clinical Western model, this can lead to misinterpreting a mystical experience for a psychotic state (Walsh, 1984).

A second core concept of transpersonal psychology is connected to the way humans understand the social order and the developmental process of human nature (Wilber, 1998). Enlightenment recognizes that seeing things as separate occurrences (e.g., person/nature, spirit/body) is an illusion (Wilber, 1998). For instance, consider the concept of the bee and the flower, Western thought views the bee as a separate organism from the flower, as defined by the spatial boundaries between them (Watts, 2012). Eastern philosophy views the bee and the flower as the one organism; the space between

them is irrelevant in terms of the definition of the organism because the bee cannot exist without the flower and the flower cannot exist without the bee (Watts, 2012). As such, the bee and the flower are interrelated and interdependent (Watts, 2012).

The third and final concept of transpersonal psychology is the way in which progress is viewed in terms of the social and the individual nature of humans (Besthorn, 2001). To many transpersonal psychologists, social progress and higher states of evolution are not given (Besthorn, 2001). Social and individual transformation of action and thought must happen before evolutionary development can occur (Besthorn, 2001). Social transformation and individual actions are expressions of internal attitudes (Besthorn, 2001). Every problem is interconnected.

One of the main obstacles in transformation is the tendency for humans to regress. Developmental reversal is a natural tendency because it is more certain and presents fewer uncomfortable feelings than the feelings associated with uncertainty (diZerega, 1996).

Transpersonal Ecology and Wilderness Practice

Transpersonal ecology is a blend between transpersonal psychology and deep ecology. As such, *wilderness practice* is an applied practice related to the trans/ecological perspective (Besthorn, 2001; Besthorn & Tegtmeier, 1999). Deep ecology and transpersonal psychology are alternative models that are largely untapped potentialities for perceiving others, ourselves, and the universe in and around us. Both these paradigms present some challenges for professionals trained in western professional and social value assumptions of self-mastery, individualism, rationality, and ego strength (Robbins et al., 1998).

Deep ecology and transpersonal psychology share similar theoretical traditions for their own unique models on regarding the course of human development (Besthorn, 2001). Both propose a more spiritual and transcendent model of human evolution. Both approaches find that modern mechanistic and materialistic views of reality do not speak to the spiritual, transpersonal, and feminine value systems (Besthorn, 2001). The materialist and mechanistic view separates mind and nature. Another linkage between the transpersonalist and deep ecologist is the shared belief that the self evolves and is connected with a larger cosmic purpose (Naess, 1989). The growth of the self involves identifying with non-human, human, and natural ecosystems (Naess, 1989). This is not a passive state where a person simply looks at nature and admires its beauty; this is an active approach whereby a person experiences an environment by living in it and doing something with it (Naess, 1989). Fox (1995) suggested that deep ecology's view that is inherently psychological in nature would be better placing transpersonal psychology and deep ecology in transpersonal ecology. The final linkage between deep ecology and transpersonal theory is that sociopolitical change must be connected to psychological transformation (Fox, 1995). A sustainable society is not really possible without personal transformation that places equal value in nonhuman and human diversity (Fox, 1995).

Transpersonal ecology holds that the dominant Western view has dismissed the language that speaks to an experiential connection with nature (Besthorn, 2001). In terms of clinical client intervention, transpersonal ecology is a way for therapists to work with clients who experience pain and loss due to the nature/human split and who feel a sense of alienation from the world (Besthorn, 2001). Coates (1999) posited that humans in Western society are becoming more aware that their self-absorbed interest in and

consumption of material objects falls short of fulfilling their deep need for belonging. As a result, depression and a darkening of their soul begins to emerge as a natural result (Coates, 1999).

Wilderness practice, as mentioned previously, is an application of the transpersonal ecological perspective. This approach helps clients to identify a more complete and developed sense of consciousness, focused towards personal healing with the world in and around them (Besthorn & Tegtmeier, 1999). Wilderness practice can be as simple as encountering flowers, plants, gardens, pets, or more involved as in going to a park and experiencing wild untouched places. In either locale, clients use their imaginative capacities to conceptualize and experience a deeper sense of oneself (Besthorn & Tegtmeier, 1999). This approach also challenges the traditional 50-minute session in a square room with artificial lighting (Besthorn & Tegtmeier, 1999). This approach also does not rely on the therapist's interpretation or analysis but can help (Besthorn & Tegtmeier, 1999).

Adolescents and children can benefit from wilderness practice. This can be as simple as introducing them to horticulture or household pets or taking them on a walk in the park. The location is not of importance, but rather, the activity is a way to promote collective and personal responsibility, to construct relational skills, and to build confidence within themselves (Naess, 1989). Political sensitivities and a sense of spirituality can be enhanced by playful experiences with gardens or through the interaction with small animals (Besthorn, 2000). Taking a child to see cows on a small farm can be an exciting and life-altering experience. Listening to the cow's heartbeat, touching the hard toes or soft hairs on the cow's nose can profoundly alter a child's

perspective on life. The transpersonal ecological approach can offer people, young and old, a new way to perceive themselves in their nonhuman and human environments.

Ecotherapy

Cohen (1995) formally defined ecotherapy as a readily available process for building environmentally-responsible inner peace, global unity, social relationships, environmentally-sound self-improvement, and social justice. Ecotherapy stems from the sense of disconnection that people often feel since the rise of the Industrial Revolution (Cohen, 1995). Although people generally are living longer and seem healthier, in part due to new technologies, a growing number of people are deeply unhappy and unfulfilled (Nesse, 2004). As a result, an increasing number of dysfunctional behaviors that people exhibit are often the result of a lack of meaning in their lives (Nesse, 2004). Wilson (1984) coined the concept of *biophilia*, which gave a name to the unconscious, instinctive bond between human beings and living systems. Tice (2000) identified a conflict that people have to satisfy the demands of life that are for the most part self-serving and not connected to environmental issues or other people, which tends to produce a disconnect with society and a desire and a longing to connect with the natural world. Ecotherapy seeks to resolve this conflict by reconnecting people to their environments.

English Nature, a government agency, highlighted the importance of connecting the inherent health-promoting benefits found in natural surroundings to people in communities (Burls, 2005). The United Nations' (2002) Johannesburg summit report, Agenda 21, suggested an integration of ecosystems and the environment for the community's well-being. The Urban Parks Forum and the Forestry Commission has been active in regenerating public parks and natural surroundings with the goal to

promote self-sustaining communities for poor communities and socially isolated regions (Burls, 2005). English Nature emphasizes ecotherapy as a viable way to support disadvantaged people with disabilities to work with nature (Burls, 2005). This kind of work includes horticulture, conservation, opening up green spaces, and protecting wildlife. The goal here is to improve social inclusion, the overall health of the individual, and the community (Burls, 2005).

Burls and Caan (2004) identified the concept of *embracement* that connects marginalized or isolated people with the environment in order to create social inclusion. Embracement is a type of grassroots program that promotes spontaneous and collective behaviors and social inclusion, with the group members serving as the primary motivational force that integrates social, health, and environmental components of a community (Burls and Caan, 2004). Embracement promotes similar feelings and experiences to models described by pioneering psychologists who studied the psychology of optimal experiences (Csikszentmihalyi, 1998; Fredrickson, 2005; Seligman & Csikszentmihalyi, 2000; Seligman, Parks, & Steen, 2004). Embracement also includes strong feelings of social inclusion along with positive emotions and optimal experiences (Burls and Caan, 2004). Ecotherapy is an alternative and uniquely viable model that widens the picture of what mental health promotion ought to include (Cohen, 1995).

Outcomes of Prior Research

Jones, Ross, Lafferty, and Wilson (2008) looked at diverse studies that focus on the use of nature to improve health and well-being. Jones et al. (2008) surveyed sources that include large-scale correlational studies, short-term studies, and longer term experimental studies, in an effort to offer conclusions borne of evidence-based practice

research. Jones et al. (2008) posited that before the 20th century, the use of nature as a therapeutic tool was commonplace as it was thought that natural surroundings provided a venue for clients to recuperate and relax. Most of the studies completed before the 20th century were qualitatively based. In an effort to provide evidence-based research, studies completed after the 20th century have been increasingly quantitatively based (Jones et al., 2008).

Therapy that involves the use of natural surroundings to improve psychological functioning has been labeled ecotherapy (Burls, 2007; Wilson, Ross, Lafferty, & Jones, 2008). There is a lack of quantitative research that looks at ecotherapy's effects on those who receive treatment for mental health concerns (Wilson et al., 2008). Recent quantitative research on ecotherapy has shown positive results on numerous aspects of physical, mental, and social functions (Wilson et al., 2008). These findings suggest that ecotherapy provides holistic benefits (Wilson et al., 2008).

A variety of lenses has been used to look at the benefits of engaging clients in a natural environment. Jones et al. (2008) looked at psychological and physiological benefits of natural surroundings, the social benefits of being immersed in nature, the physical health benefits of green space, and the evolutionary perspectives. In terms of psychological and physiological benefits of natural surroundings, a range of dependant variables has been examined including physiological measures, measures of affect (i.e., aggression, anger, fear), measures of depression and anxiety, and recuperation from psychological stress (Jones et al., 2008). Orsega Smith, Mowen, Payne, and Godbey (2004) conducted a five day study that measured perceived daily stress and park use. They found that those who stayed longer in the park were the individuals who had higher

levels of perceived daily stress (Orsega Smith et al., 2004). Those who reported positive effects from being in the park had lower systolic and diastolic blood pressure (Orsega, Smith et al., 2004).

In a randomized control study, Ulrich (1984) interviewed post-surgical patients, who were bed-ridden. Those patients who were positioned in front of a window that provided them with a view of natural landscape, spent significantly less time in the hospital than those who looked at a masonry wall (Ulrich, 1984). Those same patients who had a natural view outside their window also required less pain medication (Ulrich, 1984). This study remains one of the first attempts to explore the psychological benefits of viewing nature. Ulrich (1979) completed an experiment looking at the positive effects client experience when viewing natural scenes as compared to those who had viewed urban scenes. Ulrich (1979) found that those who had access to natural scenery experienced an increase in positive affect, whereas those viewing urban scenes experienced less positive affect. Moore (1981) completed a study comparing prisoners; finding a lower frequency of digestive illnesses and headaches when their cell window had a view of natural landscapes. Through their theory of attention restoration, Kaplan and Kaplan (1989) argued that engagement with green space when recovering from stress was correlated with lower levels of depression and increased attention. Kuo and Sullivan (2001) found that individuals who had increased access to green space demonstrated lower levels of violence and aggression and demonstrated improved levels of concentration. Kuo and Sullivan (2001) also found a significant correlation demonstrating that individuals with greater access to natural surroundings assessed their life difficulties as less severe, indicating less mental fatigue.

Laumann, Garling, and Stormar (2003) conducted a study where subjects were given an intentionally demanding task before and after watching a video of either urban or natural environments. The subjects in the nature group had significantly lower heart rates and their performance on tasks shifted from a narrow attentional focus to a broad attentional focus (Laumann et al., 2003). The shifts suggested that subjects were better able to negotiate complex stimuli.

Taylor, Kuo, and Sullivan (2001) recruited adult caregivers and children for their study, through which these researchers examined the correlation between self-discipline and natural surroundings. Those participants who were engaged in natural surroundings had greater self-discipline, and were better able to delay their gratification than the participants who did not engage in natural surroundings (Taylor et al., 2001). Mind.org (2007) exposed subjects to walks in natural surroundings and urban settings. Mind.org (2007) found statistically significant overall changes in mood (i.e., anger, depression, tension, fatigue, and confusion), and in self-esteem. In a report commissioned for the Countryside Recreation Network (Pretty, Griffin, Peacock, Hine, & South, 2005), subjects completed psychological assessment before and after the completion of several countryside activities. Pretty, Griffin, et al., (2005) found significant improvements in self-esteem in 90% of the case studies.

Lewis (1990, 1992) has shown that social relationships provide the protective factor to the harmful effects of stress. Several results demonstrated that interacting with natural environments can provide a sense of satisfaction, a sense of social belonging, aesthetic pleasure, and greater positive affect towards neighbours living in urban communities that contain gardens in low socioeconomic areas. Lewis's (1990) study

revealed a significant correlation between the locations of trees and where youth and adults gathered. The areas that had more natural surroundings attracted larger and more diverse groups than areas of urban environments that were relatively barren. Lewis (1990) mentioned that individuals in the urban environment who had greater access to green space received more visitors, felt more positive feelings about their neighbors, and expressed increased sense of social belonging (Lewis, 1990).

The amount of green space also promotes physical health benefits. Blumenthal et al. (1999) found that clients with mental health problems were also more likely to suffer from physical health problems. Medication seemed to be as effective in the treatment of mild to moderate depression (mental health problems) as physical exercise. However, Bird (2004) found that people engaged in more physical activity when they were around green space. Reynolds (1999) discovered that those who exercised in a gym with a variety of plants paid less attention to the amount and intensity of their exercise and they were more willing to continue longer in order to finish their exercise goal. Pretty, Peacock, Sellens, and Griffin (2005) performed an experiment comparing subjects running on a treadmill showing nature scenes projected on the wall as compared to those runners who stared at a blank wall. The runners who were exposed to a wall that had natural scenery projected in front of them experienced higher levels of self-esteem than those in the control group (Pretty, Peacock et al., 2005).

The evolutionary perspective on the benefits of green space suggests that human beings respond favorably to natural environments (Wilson et al., 2008). This is attributed to genetic predisposition favoring surroundings that aided survival during our early evolution (Appleton, 1975). Parsons (1991) suggests that habitat selection triggers

physiological processes releasing certain hormones that can cardiovascular function and general immunity (as cited in Wilson et al., 2008). Also, Ulrich (1993) suggested that attraction for to natural landscapes, and water specifically, has genetic origins as it indicates the presence of water and food necessary for survival.

In their theory of *attention restoration*, Kaplan and Kaplan (1989) focused on the natural environment's capacity for stress relief. The theory outlined the relationship being regulated by four facets: *extent*, *fascination*, *compatibility*, and *being away*. Extent is defined as the depth of exploration within one's surroundings (Kaplan & Kaplan, 1989). Fascination refers to the idea that there is voluntary and involuntary attention (Kaplan & Kaplan, 1989). Voluntary attention is purposely summoned and implemented when attending to a task (Kaplan & Kaplan, 1989). Involuntary attention occurs automatically without making a conscious effort to focus on a task (Kaplan & Kaplan, 1989). Compatibility is defined as the environment's ability to support the demand of what the individual wants (Kaplan & Kaplan, 1989). While, being away is defined as both perceived and physical distancing (Kaplan & Kaplan, 1989).

Nature as Medicine: Maintaining a Balance

Jones et al. (2008) suggested that there seems to be growing research demonstrating the psychological, social, and physical benefits of viewing and interacting with natural landscapes. Jones et al. (2008) suggested that despite the lack of quantitative studies in ecotherapy, the available evidence suggests that ecotherapy can significantly benefit one's physical and mental health.

Obesity has become an increasing problem in American society. More children are engaging in watching television and playing video games, rather than playing outside.

These children are failing to meet their exercise needs. Low levels of physical activity lead to obesity as well as other physical and mental health issues (Ornelas, Pereira, & Ayala, 2007). The average child watches three to five hours of television every day (Zametkin, Zoon, Klein, & Munson, 2004). This far exceeds the one to two hours recommended by the American Academy of Pediatrics (Zametkin et al., 2004).

Louv (2005) spoke to a societal trend whereby children are increasingly becoming reared with little access to the natural world and this negatively affects their emotional, cognitive, and physical wellbeing. Louv (2005) introduced the topic of nature deficit disorder. The etiology of the disorder stems from children's lack of participating in natural environments due to societal fears such as getting hit in traffic, violence, kidnapping, and fear of a stranger (Louv, 2005). Nature deficit disorder also stems from an increasing lack of natural space in which to play (Louv, 2005). An encouraging study led by Epstein et al. (2006) showed that when children do not have access to television and computers, they naturally tend to engage in physical activities in parks and in their neighborhood.

Schools also contribute to the problem of obesity, which leads to a sedentary lifestyle, the use of vending machines in cafeterias offering foods with high fat and high calories (Louv, 2005). Schools are also placing less emphasis on physical education in their curriculum. Anderson and Butcher (2006) also found that children tend to take public transit rather than walking or riding their bike to school.

Mind.org (2007) wrote a report that examined the impact of green exercise on mental health issues. Mind.org (2007) found that 75% of those walking reported less depression after their walk. Mind.org (2007) also found that 71% of those participants

felt more relaxed after walking in nature and 50% of those participants who walked in a mall felt an increased sense of tension and anxiety after their walk. Wilson et al. (2008) discovered in their review of the ecotherapy literature that there is a lack of research regarding the use of ecotherapy with those receiving mental health services. More studies ought to be conducted to promote ecotherapy and to counter society's unhealthy trends in order to enhance clients' lives and benefit society as a whole (Sackett, 2010). Sackett (2010) posited that ecotherapy can become one of the leaders that can impact social change that would be beneficial not only for clients, but also for professionals and therapists who ought to advocate for these changes.

Health and Healing

According to Cumes (1998), with the knowledge of the right and left side of the brain, masculine and feminine aspects of Mother Nature, and sun and moon energy, we can promote our own healing in nature (Cumes, 1998). Research into the healing effects of wilderness is at times elusive because prior research has focused on the external experiences of wilderness (Cumes, 1998). Conquering a mountain tends to address the technical side of the exercise and does not address the connection between human experience and the restorative aspects to of nature (Cumes, 1998). Nature by itself does not lead one inherently to a mystical experience. People's models of expectations formed in the past usually dictate what they will get out of an experience, unless they are aware of what they are looking for and purposely seek this out (Cumes, 1998). Many outdoor adventure programs do not focus on the transcendental phenomenon inherent in the healing qualities of nature (Cumes, 1998). In Eastern philosophy, focusing on the destination or the technical aspects to a wilderness experience only serves to amplify the

ego. In many Eastern cultures, the ego is akin to an illusion. The higher self lies beyond the ego and is transpersonal (Cumes, 1998).

Carl Jung (1958) spoke of the word *persona* or *mask*, which is a system of relations between the person's consciousness and society at large. The mask serves two purposes. The first is to present an impression to others and the second is to conceal the person's true inner nature (Jung, 1958). To move beyond the ego, humans must lessen the presence of the ego; but we must keep in mind the limitations to doing this because we can never really get rid of our ego (Jung, 1958). However, we can transcend the ego for a time (Jung, 1958).

Nature can be a powerful tool for increasing self-awareness; yet, it is only when we are aware that we can delve into a more hidden and deeper sense of the self and move towards an awareness of something greater than ourselves (Cumes, 1998). The desire to transcend ourselves is primarily driven by unconscious motivations and is at the foundation of all human motivation (Cumes, 1998).

Wilderness Rapture

There are no accurate definitions that exist in wilderness psychology that describe the powerful inner effect of nature on the human psyche. Cumes (1998) stated that for purposes of discussion, this inner effect is called *wilderness rapture*. The ultimate goal of all mystical philosophies is to reach a state of oneness and interconnectedness (Cumes, 1998). Mystical experience and wilderness rapture involve leaving behind the dualities and conflicted aspects to modern western life and leaning towards a state of balance that has attached to this a feeling of unity of all things (Cumes, 1998). This can be a common experience for those who have been in the wilderness for an extended period of time.

Slowly, the differences between the self and nature become melded into one experience (Cumes, 1998).

There are indigenous cultures that see and experience the unity in the natural on a daily basis. Cumes (1998) pointed to the San Hunter-Gatherers of the Kalahari who use nature as a healing process. The San Hunter-Gatherers are well known for their uncanny ability to live in harmonious social interaction. They often express a sense of humility, have unconditional love for their children, and often live in the present moment. The San live in harmony with the natural environment and have a strong sense of self (Cumes, 1998). The way in which they practice nature is by having little separation from their natural surroundings. The closest thing we can come to this would be through the practice of *minimal camping* (Cumes, 1998).

The feeling of wilderness rapture is an inner feeling similar to when we become mesmerized by a sound in nature, a light, or a smell, and we begin to feel a special sense of awareness and/or emotion in our body that is incomparable to any other experience (Cumes, 1998). Usually this feeling encompasses our entire body and psyche and we are captivated by this feeling. The moment we begin to analyze the aspects of this experience, we lose this feeling and we lose the wonder of the moment (Cumes, 1998). Wilderness rapture activates our whole brain in balance (Cumes, 1998).

Many wilderness researchers focus on the external areas of human experience and focus on topics such as self-competence or self-concept. These areas of exploration lend themselves to one aspect of human experience in the cognitive realm. Researchers (e.g., Greenway, Martin, & Tyler, 1995; Kaplan & Kaplan, 1989) have focused on the inner experience of wilderness. These inner experiences are complex and unite when we are in

alignment with our higher selves. These wilderness psychologists have described wilderness rapture in various forms. The wilderness rapture experience involves peak experiences, feelings of oneness, wonder, awe, and transcendence (Cumes, 1998).

There is a sense of comfort and connection with nature (Cumes, 1998). There is a feeling of vigor and renewal that allows one to be more mindful and focused (Cumes, 1998). Wilderness rapture also involves self-actualization, self-realization, and a sense of being more true to oneself (Cumes, 1998). A feeling of simplicity and ability to live in the present moment is enhanced (Cumes, 1998). A person feels a sense of openness and increased affinity for others (Cumes, 1998). There is a deeper appreciation for simplicity and solitude, and often there exists a process of giving up the desire to have control over others and all that is around them (Cumes, 1998).

As with many Appalachian Trail thru-hikers, including this researcher, after having ended the six-month journey spanning 2200 miles from Georgia to Maine, thru-hikers come out of a wilderness rapture. At the end of the trail, there is a sense of let down and mild depression. This phenomenon has been coined *re-entry depression* by wilderness psychologists (Cumes, 1998). The greater the experience in the journey of wilderness, the greater the feeling of re-entry depression (Cumes, 1998). Wilderness psychologists (Cumes, 1998) have suggested that this re-entry depression is as a result of coming back to society and that it shocks us into normal states or awareness that do not feel as completely whole as when we experienced oneness with our natural surroundings.

Maslow (1976) spoke similarly about the sense of awe, oneness, inner peace, and harmony we experience when we are in the state of wilderness rapture. Maslow (1964) called this a peak experience. He described the sense of awe and wonder one feels in a

boundless experience that is said to be a transcendental experience (Maslow, 1976). The unique aspect of the peak experience is the overwhelm of all senses that leaves an impression, which has the potential for lasting, life-altering impact. The difference between a peak experience and a wilderness rapture is one of intensity and ability. Peak experiences tend to be able to be enacted, for instance, by climbing to the top of a mountain. Whereas a wilderness rapture is something that happens and cannot be called up by an activity to make it happen. When we try to replicate this sense of awe and wonder, we lose the moment (Cumes, 1998).

The Constructs of Childhood Experience

Childhood Experiences in Nature

Strife and Liam (2009) brought together research from disciplines of environmental education, environmental health, and environmental psychology as pertains to the emotional, cognitive, and physical characteristics of children who engage in natural surroundings. They pointed to increasing evidence that suggest that the more a child is exposed to natural surroundings, the more ones emotional, cognitive, and physical aspects will grow. Children tend to experience increased academic performance, reduced stress and aggression levels, better concentration by exposure to natural surroundings (Kellert, 2005; Louv, 2007).

Strife and Liam (2009) pointed to recent findings that link children's exposure to environmental pollutants and reduced access to natural surroundings to children's reduction in their physical and mental health (Faber & Kuo, 2006; Goldman & Koduru, 2000; Pretty, Peacock et al., 2005; Sullivan, 2001; Wells, 2000). Moreover, early childhood experiences in nature lay the groundwork for future play and work in natural

surroundings (Chawla, 1998; 1999). This decline in children's interest in being outside and close to nature is feared to have an impact on whether future generations will want to care for and protect the natural environment. What will be needed is to examine which youth populations are being marginalized most since race and class inequalities are likely to influence attitudes, future access, and behaviors regarding the environment (Chawla, 2001; Hart, 1979; Kahn & Friedman, 1995; Wals, 1994).

In a highly competitive global market, limited access to nature, and the negative impacts of exposure to pollution will have increasingly negative consequences in children's cognition, educational achievement, and mental health (Center for Health, Environment and Justice, 2001). Increase in population, combined with poor management of natural spaces and increased time indoors, add to concerns that children are experiencing less time outdoors (Louv, 2005; Wells & Lekies, 2006). Evidence shows that children are spending more time indoors than they did a decade ago (Chawla, 2002, 2007; Davis, 1999; Louv, 2007).

Children are increasingly playing indoors due to an increase in structured activities and spending more time on video games, the Internet, and computers (Faber & Kuo, 2006; Louv, 2005). Strife and Liam (2009) point to research suggesting parents are becoming increasingly wary of strangers and worry more that their children will become victims of a crime. All this also plays a role with the parents allowing the child to play outdoors and explore nature (Valentine & McKendrick, 1997). Because of these factors, there is growing evidence that children are becoming less nature-focused and are becoming desensitized to the pleasures of what participating in nature can bring (Faber & Kuo, 2006; Louv, 2005, 2007). Research also has shown that children spend more time

watching television (i.e., 1,023 hours per year) than in school (i.e., 900 hours per year) and that this amount of increased time in front of the screen correlates with higher measures of body fat (Louv, 2005).

Strife and Liam (2009) compared children in two different day care facilities. The day care facility that was located near natural surroundings had children that had increased capacities for attention and increased cognitive functioning. Strife and Liam (2009) also indicated two studies examining the amount of green space a child was involved in and the degree of ADHD symptoms the child exhibited. The children who had greater access to natural surroundings were better able to complete tasks, concentrate, and follow directions than those children who spent their time playing indoors (Faber & Kuo, 2006; Sullivan, 2001).

Given the wide variety of benefits from being close to nature, empirical evidence suggests that children's experiences in nature and their amount of access to nature vary according to ethnicity, race, and socioeconomic status (Frumkin, 2005; Hart, 1979; Kahn & Friedman, 1995; Rideout, 2000). Many studies point to evidence that children and youth from low income and minority families have fewer opportunities to access natural surroundings, parks, sport areas, and nature trails, all of which support physical activity (Frumkin, 2005; Lindsey, Maraj & Kuan, 2001). People of low socioeconomic background tend to live in areas that are not as close to nature and natural spaces as those in the middle or upper class (Frumkin, 2005). Some of these barriers are due to lack of familiarity with natural spaces, cultural preferences, racial discrimination, fights over territory, lack of transportation, and the cultural ideology (Frumkin, 2005). Lack of diversity among environmental educators also provides a barrier to a variety of cultures

who want to participate in nature and be in natural surroundings (Rideout, 2000; Wals, 1994).

Strife and Liam (2009) reviewed the current research addressing class and race differences in child and youth regarding their access to natural surroundings. The studies suggested that minorities are exposed to environmental risks and have less access to green space. Limited exposure to nature can have serious psychological and physical consequences to children (Kaplan, 1995; Kaplan & Kaplan, 1989; Kellert, 2005).

Attachment Theory

Theories of interpersonal object relations, attachment theory, and ecological psychology, together, provide a guideline for explaining major findings in research studies looking at the motivations of adult engagement in the outdoors both for leisure and for career purposes (Chawla, 2007). More specifically, an object relations focus is explained through the study of the attachment theories of John Bowlby and Donald Winnicott. The ecological psychology theories stem from the works of Eleanor Gibson, Edward Reed, and James Gibson. Chawla (2007) found early childhood and adolescent experiences of nature, along with childhood role models who gave nature special attention to youth, provided for positive experiences of nature in people throughout their life.

When people are asked what motivated their embrace of the environmental field or environmental education, two things are typically identified: as children, they had (a) adults who spent time with them in nature and (b) places in nature were special to them; with either, the individual had plenty of time to explore the natural world (Tanner, 1980). In addition, Tanner (2008) found that when conservation groups were asked what made

them choose their job, most of them referred to teachers, parents, books, and time spent in nature as children. Chawla (1998) asked environmental activists what made them choose their job. Most of them attributed their career choice to positive childhood experiences in nature and role models who encouraged them to explore the natural world. Some of these adults also had adults who helped to explain and discuss the features in nature with the child. This provided an opportunity for children to gain a deeper appreciation for nature.

Organizations such as Boy Scouts and Girl Scouts also provide for positive experiences for children and adolescents. Wells and Lekies (2006) discovered that activities in nature during childhood was the best predictor for adult involvement in recycling, participating in Earth Day, and voting for political parties that endorsed renewable energy. Sviek (2002) asked adolescents in high school why they joined their local environmental club, and most spoke to about positive experiences of natural surroundings close to their home or school. German students who were identified as active in nature and environmental clubs traced their interest back to experiences with their parents who took great interest showing their children the importance of and appreciation for the natural world (Bogeholz, 2006). All of these research studies were based on autobiographical memory recall of past events. Research shows that autobiographical memory involving significant experiences and unrestrained recall from memory based on important personal experience is the most reliable of its kind (Chawla, 1988).

Though it is possible that some children have a natural capacity to seek out nature on their own and elicit parents to be sympathetic to nature, research does show that the

line of transmission of most information is handed down from adults to children (Hart, 1978). Many studies show that when children and adolescents have access to play in the natural world, they engage in it; this was found around the world, as long as the natural environment was perceived as a safe area in which to play (Chawla, 2002).

Some people have argued that to use memory as a source of data could be misleading because people's recall of events may not be complete and could be altered over time. However, cognitive psychologist Ulric Neisser (1988) has stated that because people find their present motivations from their past memories, this is what is most important to focus on. It is these past memories that people use to identify special places and people in their childhood and adolescence, and this is important in itself.

Many ecological psychologists offer insights into the importance of unguided play in natural surroundings (Gibson, 1969; Gibson, 1979; Reed, 1996). Ecological psychology is concerned with human beings in relation to nature. They contend that humans are natural organisms like any other organisms; they encounter the world experientially, and they mainly perceive this world directly rather than seeing the world through mental constructs (Chawla, 2002). In this way, humans are dependent on inherent qualities of the world and its resources. They discover these by direct perception so they can adapt and adjust their behavior (Chawla, 2002).

Ecological psychologists see humans as animate organisms that move just like all animals and other organisms move (Chawla, 2002). In this way, ecological psychologists are interested in environmental learning in formal and informal settings. Humans are seen as part of a relational system with the environment. Gibson (1979) described significant properties of the environment that, in part, make the relationship between

humans and the environment possible. For instance, a river affords traversing if the water is low enough and the current is slow enough for the person to cross safely. The affordance is neither in the water nor in the person but is in the relationship between the two. Environments vary in the quality of their affordances (Gibson, 1979).

Edward Reed (1996) posited three ways of conceptualizing the variety of affordances that can be provided for children: *free action*, *promoted action*, and *constrained action*. Free action is a relationship where children can explore the world freely without interference of supervision and guidance from others (Reed, 1996). In the field of constrained action, this is akin to scaffolding, wherein an adult may place some rounded rocks or shapely sticks in front of a child. In the field of constrained action, adults limit what the youth can do; setting a time for play, having locks on doors, and restricting the youth to indoor play.

Ecological psychologists share some of the concepts that make up significant moments of childhood experiences that educators and environmental activists share. Kytta (2006) posited that deep impressions are made in the child's life when they actively play in natural surroundings. Some of the best kinds of conditions for developing competence and knowledge in children are when they can enjoy the freedom of unrestricted play in nature (Kytta, 2006). If natural areas are not to be had locally, then adults can encourage children to play in natural areas by promoting their action and driving them to a park (Kytta, 2006). Part of this assumes that parents are open and interested enough in having the child participate in this manner. This also says something about the relationship between the child and the parent.

Nature contains a wealth of responsive affordances, and children are often

rewarded in the natural world by their initiatives. This encourages children to engage and seek out challenges not only in nature, but in formal indoor settings as well. The natural world is a place where immediate feedback is reinforced by children's actions, and they can learn from the world through kinesthetic means (Nicholson, 1971). Playing in nature offers so many rich opportunities, the possibilities that a child can come up in nature outweigh the possibilities of playing with Lego (Nicholson, 1971). Nature also provides an area that allows for many varying degrees of graduated levels of challenge, and this helps children develop their physical competence (Nicholson, 1971). For instance, if one day the log is too heavy and lodged into the ground too firmly, perhaps the next day, after a good rain, the soil might be soft enough for the log to be lifted from the ground.

Observations from research (Kirkby, 1989) have showed that children are able to be more creative and dramatic in their play in natural surroundings than in formalized playgrounds. When youth participate in nature, they find that no two things are the same. No two birds are alike, no two stones are alike, no two hills are alike, and so forth. This creates an environment for infinite possibilities for creative play. This also provides for almost unlimited amounts of information and challenges to be worked through (Kirkby, 1989). Playing in nature also provides novelty as nature is always renewing itself (e.g., the ebb and flow of a riverbank), and youth can come back to the same place each day and experience something new about that area. This has transferability into their daily lives. The more varied experiences a child encounters by engaging in nature, the more likely a child can become confident in playing a variety of roles at school (Barker & Schoggen, 1973). This develops social competence (Kirkby, 1989).

Adults can play a role in shaping the child's experiences through the field of promoted action (Barker & Schoggen, 1973). By playing with the child, the adult can communicate nature's values and can promote the child's interests. In this way, the adult sets the example by noticing nature in a grateful and appreciative manner (Barker & Schoggen, 1973). When an adult is available, this can also give confidence to the child that she or he can explore the natural world and still have a safe place to come back to if the child become distressed by an encounter in nature. Bonds are formed between the child and the adult when they engage in activities in nature. Children remember these experiences vividly, well into adulthood. Take, for instance, the father that takes his son fishing and spends the day talking about not only the mechanics of fishing, but also about the color and sounds of the birds or of the waves on the water. There is a need for research devoted to what happens during these moments of social interaction (Barker & Schoggen, 1973).

Object Relations

As a beginning to address the bonds that can come out these social interactions, interpersonal theories of object relations can be of help to explain the attachment bonds that can exist. Ecological psychologists do acknowledge that there is joy to be had in achieving competence in the natural environment, that participating in nature evokes a wide range of emotions, and that the joint attention of an adult with a child in nature promotes social competence (Chawla, 2007). Though ecological psychologists mostly attend to the relations between humans and the environment, they do not pay attention to noticing the quality of these relationships. This is where we can use interpersonal object relations to focus on the quality of the youth's developing bonds with adults.

Object relations is primarily concerned with issues of development from Kleinian (1946) theory that occurs before the psychosexual stages of development from Freudian theory. Ecological psychologists do not accept these concepts as a whole; however, some aspects of objects relations theory are compatible with ecological psychology (Chawla, 2007). The compatibility lies in the parents' and the child's mutual interests and the quality of the child's bond with ones caregivers. This helps to explain why when adults are asked why they go hiking or have become environmental activists; they often speak to early positive childhood experiences.

The two most relevant approaches according to many ecological psychologists are those of Donald Winnicott and John Bowlby (Chawla, 2007). Bowlby (1969) raised awareness of the importance of the attachment relationship between a child and primary caregiver, typically, the child's mother. Bowlby's (1969) work was inspired by Mary Ainsworth who noticed that the way a caregiver gives attention and is responsive to the child. This forms a safe place for the child to venture out into the world and to develop his or her own sense of competence (Bretherton, 1992). In this way, interpersonal theories of attachment and objection relations provide depth to ecological psychologist's notions of free action, promoted action, and constrained action. Observers of young children have noticed that the child oscillates back and forth from the mother to the environment and back to the mother, creating a safe space for the child to be in (Bretherton, 1992).

The concept of the safe space that a mother and child engage in is very similar to what we see in nature, as with a mother duck and its ducklings. The mother duck moves along the river and the ducklings shift back and forth from the mother to the riverbank

and back again. This movement back and forth from the mother to the riverbank creates a safe space for the ducklings. In this way, ecological psychology is also a good fit.

The notion of constrained action exists when the mother senses a threat in the environment and draws the child near to her (Bretherton, 1992). When the environment is safe again, the child is encouraged (i.e., promoted action) to freely explore the environment and move further in the environment or to come back when the child senses she or he has gone too far (Bretherton, 1992). The more the child feels securely attached to the mother, the more the child explores the environment with confidence (Bowlby, 1969).

Research in interpersonal theories of object relations shows that children build secure attachment bonds when the child finds the mother behaving responsively, in an appropriate manner to the child's facial expressions, cries, hunger, smiles, and talking back that mimics their sounds (Stern, 1985). When the caregiver responds appropriately to the child's expressions and meets with the child's needs, the child builds confidence to explore, adventure, and participate openly in the environment (Stern, 1985). However, if the child feels threatened by the caregiver's love, then the child becomes preoccupied by threats from the environment and from the parent (Stern, 1985). Here the child does not gain the confidence needed to explore and to respond to the world in a safe manner (Stern, 1985).

With that said, the caregiver does not need to be perfect or to respond to the child with 100% accuracy. The caregiver needs only to be good enough to provide a *holding environment* that contains the child (Chawla, 2007). This holding environment is, at first, the caregiver's arms, later the room, and eventually, the neighborhood and natural

surroundings (Chawla, 2007). Important to Winnicott's theory is that when a child is not needing anything from the caregiver, but still makes demands, the caregiver should be available and allow the child to freely explore the environment (Chawla, 2007). This gives the child a sense of being on its own, and motivates the child to play for hours on end, losing him or herself in the state of play.

Winnicott's idea of a facilitating environment created for a child by a good enough mother who is supported by the adults around her, rests easily alongside Bowlby's theory of attachment (Chawla, 2007). It is in the nature of the interpersonal relationship between the caregiver and the child that colors the world the child is in and impacts the whole field of their experience (Chawla, 2007). The fact that caregivers take genuine interest and pleasure in their child allows for the child to feel valued, cared for, and fosters initiative in the child to not only care for the natural world but care equally for him or herself (Winnicott, 1958).

The care that stems from the caregiver to the child also provides a reciprocal flow back to the caregiver, and magnifies the caregiver's enjoyment of the child and both of their natural surroundings. These powerful interpersonal relationships go beyond the boundaries of the defining principles of ecological psychology (Chawla, 2007). Hence, ecological psychology can be effectively used as a foundation for explaining how a child grows to protect and to nourish the family garden or landscape. Naess (1995) has developed a theory, which is endorsed by many deep ecologists and ecological psychologists alike, that is used to explain that nature has intrinsic qualities in itself, apart from its pragmatic use, and is an essential part of ecological psychology. Yet Naess' (1995) theory is also pushed beyond its defining boundaries when combined with

interpersonal theory. Interpersonal theories of attachment provide a level of depth in caregiver/child bonds that focuses the child's attention to the caregiver's cues. The combination of these theories makes richer experiences for humans in nature.

It is worth noting that Bowlby's studies of infant-caregiver attachment are based on observations in the laboratory under controlled conditions. However, by observing infants and caregivers in their homes, Zukow-Goldring (1997) demonstrated how to take these similar studies into cross-cultural and natural settings. Similar research could focus on naturalistic observations with children and caregivers over a longer period. Blizzard and Schuster (2007) performed a study involving teachers and children in a forest and found that the children's responsiveness to nature and to their teachers varied depending upon how much emphasis the teachers placed their relationships with the children. The better the teacher/child relationship the better the child/forest relationship.

In terms of research about children's experiences of nature, there is scant research; however, Kellert (2002) discussed the probable negative developmental impacts on children who are increasingly becoming out of touch with nature and on the natural process of diversity in nature. The increasing vicarious experience of the world through television and video games provide an indirect experience of the natural world. Kahn and Kellert (2002) reviewed studies that suggested some positive effects of television exposure as a way of familiarizing the viewer to the natural world. However, Kellert (2002) suggested these experiences were unsatisfactory in compensation for the increasing lack of direct contact with local natural environments. He also says that children's ability to have access and ongoing experiences in nature is a critical and irreplaceable aspect to the healthy maturation and development of the child. Kellert

(2002) suggested that children need not to only go into a forest to mature and develop but that children should also seek out animals and that this is particularly important in their early and middle years. Kellert (2002) put forward that a young child could mature and develop tremendously due to exposure to animals. Some of this is due to having an animal friend with whom they can share their troubles, learn to empathize, and notice how the animal's bodily features are similar to theirs in terms of a spine, legs, ears, nose, and eyes. A child who has an animal can learn to develop caring relationships with others by having a caring relationship with their animals (Kellert, 2002). This well-known observation also provides some insights regarding how children learn to care for others through their care for the natural world.

Relational Psychology

The past director of the Institute for Child and Adolescent Development in Wellesley, Massachusetts wrote a book entitled, *Child Therapy and the Great Outdoors* (Santostefano, 2004). He documented how gardens provide a space for children to project their fears and joys and he noted that the children were able to work through the healing process with less stress (Santostefano, 2004). During his time as director, Santostefano (2008b) explored the valued but misunderstood role of relational psychology in healthy psychological development. Santostefano (2004, 2008ab) rejected the philosophy of ecopsychology that states nature is inherently healing to a person's emotional pain; that all one has to do is sit by a waterfall or do some gardening, and the child or adult will automatically find this beneficial to his or her mental health. Santostefano suggested that in the definition of ecopsychology there is no mention of the developmental tasks a person must "negotiate before he or she can benefit from what

nature has to offer” (2008b, p. 514) . Santostefano (2008b) suggested that the child’s first experiences with human and nonhuman environments create representative metaphors that are relevant to actions, emotions, and cognition in later experiences. Those metaphors have meanings that are associated with the present environment and are connected to models of expectation that fit with the person’s current activity (Santostefano, 2008b). If these embodied metaphors were created during interactions where attachments were formed relatively free from major developmental obstacles, the child will have as a repertoire the widest range environments to negotiate development in years to come (Santostefano, 2008b).

Santostefano (2008b) posited that various environments, including nature, are extensions of one’s self; the child and these environments grow together in healthy psychological development. Santostefano (2008b) gives an example of two children under two different environments. The first child was a boy who was not raised to enjoy nature. Whenever the child got dirty the boy’s parents would discouraged this. As the boy got older, the parents would encourage him to go outside to get some fresh air and join the neighborhood children. This boy often refused to go outside and usually only reluctantly complied. In contrast to this, a young girl of similar age was raised by parents at an early age to play in the garden, to get dirty in the mud, and to search for birds. The parents of this young girl were often found outside looking for her as she would disappear from the house without notice. When the parents found her and asked her what she was doing, she often commented that she was searching for butterflies among the flowers, feeding birds, or chasing rabbits. Santostefano (2008b) believed that nature could provide children and adults with stimulation that was pleasurable, foster positive

psychological development, and promote well-being. Santostefano (2008b) pointed to several unnamed studies identifying the numerous ways nature provides benefits to humans. This view is also shared by ecopsychologists. Ecopsychology provides the roots for several school of psychotherapy:

1. *Adventure wilderness therapy*, which encourages the client to engage in activities such as rock climbing, hiking, and canoeing;
2. *Horticultural therapy*, during which clients grow and harvest plant life; and
3. *Ecotherapy*, which gives clients nature-based homework, such as walking along a beach in search of snails or watching a sunset (Santostefano, 2008b).

Ecopsychology has become an increasingly popular concept among the general public, particularly in regards to the idea that engaging in nature can have powerful effects on one's mental health (Walzholz, 2003). The notion of ecopsychology stems from the writings of Descartes which have paved the way for many psychologists and philosophers view of nature (Rozemond, 1998). Descartes tended to see a person's mind as separate from a person's body Descartes believed that nature was inherently thought to produce pleasurable stimulation in the mind as separate from a person's body (Rozemond, 1998). Santostefano (2008b) opposed Descarte's dualism and rather took the view that the relationship between a person's mind and body, and between a person and the stimulation that the environment can give, is really what is occurring.

Relational psychology gives primary importance to the meaning a person gives to experiences in the environment and relationships between people (Santostefano, 2008b). What a person notices internally, and in the environment, is primarily understood by the person from his or her own history and own styles of expressing emotions (Santostefano,

2008b). In relational psychology, people are motivated by meanings constructed in interactions with human and nonhuman environments (Santostefano, 2008b).

This concept is in opposition to the Freudian idea that people are motivated by internal drives (Lichtenberg, 1989). Lichtenberg (1989) posited that many developmental needs motivate a client, and these needs are fostered mainly during the interactions between the infant and the caregivers. Lichtenberg (1989) mentioned those interactions are based on the need to experience a sense of love and attachment, the need to regulate one's demands with the other, the need to withdraw from another, the need to assert oneself, and the need to experience a sense of pleasure (Lichtenberg, 1989).

The common view that one's emotional conflicts take place within one's own fantasies and between one's own fantasies and the environment is rejected by Santostefano (2008b). In relational psychology, conflicts occur between and become resolved by the interactions the client engages in and within the variety of ways a client interprets those relationships he or she participates in (Santostefano, 2008b).

Psychoanalysis, and particularly Freud, has given much attention to the meaning a client gives to his or her experiences (Barratt, 1984). Since then, post-Freudian material has split the concept of meaning into two forms: *real meaning* and *distorted meaning* (Barratt, 1984). Real meaning is meaning that is viewed as normal; distorted meaning is deemed as imagined and is viewed as abnormal. Current literature has encouraged others to bridge the dualistic view and consider reality as defined in all experiences the person has, regardless of meaning (Barratt, 1984).

Santostefano (2008b) stated that his model has its roots in the psychology and philosophy of William James (1890) where he defines the self in terms of two processes:

The *Me-Self* and the *I-Self*. The Me-Self experiences kinesthetic sensations and emotions within the body, and the I-Self gives meaning to these experiences (Santostefano, 2008b). The I-Self is part of the self that contains thoughts and actions that remain with the person over time (Santostefano, 2008b). Aron (1996) conceptualized the Me-Self and the I-Self in a dialectical relationship between the two processes. These two processes continuously define and communicate with each other. Santostefano (2008b) defined an embodied life-metaphor in context with the Me-Self. While the I-Self organizes sensations, actions, rhythms of dialogue, facial expressions, emotions, and images that represent past experiences with nonhuman and human environments; the I-Self also provides meaning to one's present situation that serves the person's negotiating and coping strategies (Santostefano, 2008b). The beginnings of embodied life-metaphors emerge during the first year of a child's life when the child is organizing and repeating nonverbal rituals while negotiating developmental issues. These embodied life-metaphors are continuously emerging throughout the person's childhood and adolescence into adulthood (Overton, 1994; Santostefano, 1994).

Santostefano (2008b) summarized healthy psychological development as involving a child, nature, significant others, and inanimate environments all starting during the first years of life. These form the child's matrix of embodied life-metaphors. Burns (1998) confirmed this finding when he asked subjects to discuss their experiences in nature and adults reported that being outside and working with plants triggered early memories of interactions with those they cared for.

Santostefano (2008a) explored the importance of looking at how space and play need to be included. The literature begins with how treatment needs to include how a

client can recover not only from one's indoor environments but also how one can recover and effectively deal with all environments. For a person's self and environments to become whole, working with clients in a human and nonhuman environment provides for holistic integration of their conflicts. Santostefano (2008a) commented how this approach can be foreign to psychoanalytical therapists. He pointed out how a client's self and environments can grow together to become a healthy integration of life-metaphors. Take for instance a child who refuses to eat, who throws food in the garbage, and who locks him or herself in the bedroom. This can be seen as a metaphor asserting the child's sense that all human and nonhuman environments are dangerous and should be avoided (Santostefano, 2008a). By working with the client and discussing the meanings of these environments, the conflicts that the client experiences in these environments can be addressed by helping the client understand how the space he or she lives in can be negotiated safely (Santostefano, 2008a).

Santostefano (2008a) points out that the nonhuman environment is not innately a safe place for conflicts to be addressed. The therapist needs to consider the developmental issues the child faces before he or she can benefit from interacting with nonhuman environments. Santostefano (2008a) stated that the human and nonhuman environment plays a role in how the client organizes one's processing and neurological patterning and how changes in the environment can effect unintended variations in the person's consciousness for living. According to Santostefano (2008a), the therapist is challenged to consider not only the internal conflicts the client is experiencing, but also how the client either avoids or abuses the nonhuman environment. Another challenge also exists identifying how the therapist can facilitate the client's recovery, repair, and

successful negotiation of all environments (Santostefano, 2008a). The therapist is called upon to discover the underlying meanings of the client's nonhuman and human environments. The therapist is expected to consider his or her personal meanings connected to nonhuman and human environments; as with all therapeutic dynamics, the therapist must be aware of how he or she has negotiated these developmental issues (Santostefano, 2008a).

Santostefano (2008a) also noted that Freud's enjoyment of taking clients out on hikes in the wilderness speaks to Freud's interest in healing clients by conducting therapy in different environments. Santostefano (2008a) commented that Freud probably did more than take clients hiking just for his own liking. Although we cannot know why Freud took clients out on nature walks, Santostefano (2008a) suggested that all mammals, including humans, experience natural environments as an extension of their bodies and this might have been a motivating factor for Freud taking clients out on hikes. Santostefano (2008a) pointed out that finding ways of continuing to research how nonhuman environments can be integrated into treatment as an extension of our own bodies can be helpful to clients.

Synthesis of Constructs Reviewed: A Personal Experience

At this juncture, it seems pertinent to share with the reader the researcher's personal experience with and within nature. This is critical for understanding the researcher's views to extricate personal meaning from the analysis of the constructs presented in this study. It is also essential for the reader's understanding of the pertinence of identifying one's personal story to ensure the ability to provide meaningful treatment unencumbered by personal history. Synthesis of the therapeutic and psychoanalytic constructs presented throughout this study is evident within this personal experience.

The researcher drafted an autobiography to publish on the Internet for wilderness travellers to read and connect with his sensitive views and deep compassion for nature and the natural experience. There were three essential, life-defining experiences within the researcher's history. Without judgement, this researcher reflects in this autobiographical material on the sense that absent from his developmental experience were the critical bonds and emotional connections needed for healthy traverse into adulthood. Further, the specific feelings of (a) personal responsibility to provide care for himself and his mother without receiving overt caregiving from either parent, (b) a transformational experience inspiring hope, and (c) the actual experience of peace and safety within the wilderness, protected this researcher. These experiences gave the researcher the motivation to survive, pursue this study, and refine these perspectives to offer others the same natural experiences for affirmation of their life (at this point, to allow a better and more direct conveyance of the following personal material within this study, the mode of delivery in this section will now move from self reference to "the

researcher” to the first person—I, me, my). With that said, I want to share the evolution of my views. I want readers to understand how I arrived at the position that qualities in nature have helped my personal and professional development. This is not just history; this is my story.

I was born in a storm. I lived in a storm without shelter, until roughly age ten. After that, I began to realize not all families were storms. My life with a parent with a mental illness was similar to being raised by wolves. Yet, even wolves care for their young a bit more than I was. Before age ten, I just reacted. I was not able to express my feelings and could not expect my parents to attend to my emotions. I became a manager of my own feelings in order to survive. I was neglected and in some cases left for dead, had I chosen that route. I had to attend to my needs alone. I had to dress myself and tell myself when to go to bed; I learned how to prepare myself for the next morning.

I lived in fear after my mother’s first attempted suicide and eventually put a lock on my door. I was afraid that my mother would have another psychotic episode and try to kill me out of her fear or some other thought that I could not predict. My mother never physically threatened my life and I was only spanked once as a child. However, after witnessing her attempt with a razor blade, I became sensitive to the potential horrors and began to take action to protect myself. Making her feel better became the most important thing I could do in my day. At least it gave me the most enjoyment during the times she was so profoundly depressed.

One evening a little before I turned nine, my father, a local elementary school teacher, gave me an Encyclopedia Britannica book entitled, *The Enchanted Forest*. The picture on the front of the children’s book was of a boy among lush greenery who seemed

to be enchanted by all that surrounded him. The photo immediately calmed me. I turned to it often and I went through the pages and read about all the plants, learning how they grew and where they lived. I noticed that I had a profound sense of peace reading this book, which inspired me to seek out the wilderness that existed in my suburb.

I found solace in nature by the age of nine. Nature provided me with the calm I needed; nature became my dear friend. I began to go on extended weekend trips when I was 16 and I found that life was really worth living. That is where I found my love for nature and all outdoor experiences.

I spent countless nights as a teenager attempting to help my mother be happy. My father often told me that if he got too close to my mother he would ‘crack up’. Instead, he sent me to crack up. This left me the role of taking care of my mother and myself; I lived an isolated life growing up. My mother attempted suicide again when I was 16. Fortunately, I was older and more attuned to the signs; I was able to get her help before she could do serious damage to herself. I really got a deep sense of fulfillment when I was able to make my mother’s life more enjoyable.

I tried to get emotional help in my early teens; my parents flatly disliked the idea. For preservation, I did not get the help I needed in high school. When I went to college, I received therapy for the first time. This changed my life. From this experience, I learned that early intervention is essential. Unfortunately, there was no help to be found during my formative years. I looked. This realization helped me recognize the role of the wilderness in my life.

The wilderness provided a place where I could feel at peace. This did not come easily. When I first entered the wilderness, I was fraught with fear. However, in my

reality, there was nothing worse than the fear of living with a mother who was, from time to time, psychotic. Along with the fear of exploring the wilderness for the first time, came the promise that it would be a very peaceful place to explore. Inspired by the book my father had given me, I searched for the peace, tranquility, and calm that nature seemed to offer.

Through my perseverance, I made my own paths in the wilderness; I was fighting off spider webs and trailblazing to places that eventually led to opened spaces in the deep woods. I found areas where I could look around and hear all the sounds of the birds, catch the scent and beauty of the flowers, and feel the delicate soothing winds that rustled the leaves. I would often fall asleep in the woods alone during the day; when I woke, I felt refreshed. Ever-present was a mild fear that an animal or person might harm me, but my logical mind told me I would probably be fine. At least it seemed safer than being at home with the uncertainty of my mother's changeable moods and my father's sometimes-explosive anger. Ultimately, being in woods was a more calming place to be. I felt a sense of calm I had never felt at home and it was consistent. Over the years, the wilderness became a place where I could self-regulate. I could always emerge with a profound sense of calm and I could be creative making things, such as hammocks out of grape vines.

When I was sufficiently stressed during high school, I would skip school; forging a sick note, disconnecting the home phone, and going into the woods to sleep or just peaceably observe all the bugs and foliage on the forest floor revived me. The wilderness became a magical place wherein I could feel completely at ease. I was free to wander and let my mind solve the problems from my home life. I left feeling renewed and

capable of going back home to take on a new battle. The wilderness was a restorative place where I could vent, talk to myself, and work out the issues of my life. I was soothed, simply by observing all the natural living things going on around me.

Nature has always been a holding environment for me; there was something comforting for me being surrounded by warm air, birds' song, and trees. I viewed nature as something that was healing and safe. This one thing consistently gave me the needed calm. My love for the wilderness came from conquering great challenges. I had to overcome the unknown to become comfortable in my newly found haven.

The problem of loneliness was always in the background; I attempted to bring my friends into the woods to share what I learned and felt. While they found the wilderness interesting and fun, they did not seem to share my enthusiasm. When I first went to university I did not have friends; I wanted to meet like-minded people so I started up my own *Outdoors Club*. With the help of the university, I managed to obtain an office, a seven thousand dollar budget, and co-led 12-15 trips a year throughout my undergraduate studies. I was the outdoors expert. I led people on canoeing, backpacking, hiking, camping, and skiing trips. I found that for other students these were great ways to recreate and meet people. I met students from around the world who talked about their experiences in the wild. All of them seemed to speak of the wilderness as a restorative place where they could escape the pressures of work and school. I eventually became lonely being a trip leader. I was attuned to the problems my peers were experiencing, and I wanted to help them in the same way I helped my mother.

I realized I wanted to become a therapist. Reading research about other people's motivation to become therapists, I learned that the main motivator was often unconscious

guilt over not being able to help their mother's illness. This made sense to me. I appreciate all I have learned about people throughout my education. Yet, I recognized an absence of learning about how nature was restorative and curative. Therefore, this study was undertaken (at this point, I will now be returning to the mode of delivery that involves the usual indirect self-reference of "the researcher").

Chapter Summary

The central focus of this research study was the intent to examine, analyze, and evaluate peer-reviewed literature with the goal of identifying how wilderness was healing within the human experience. This review of the available literature was designed to offer a vast perspective of how wilderness is perceived, how clients can be helped, and how these combined aspects can be integrated. This work also highlights suggestions for ways humans can heal and protect the natural world to prevent further disconnection and environmental destruction. Optimistically, the collected information serves as a foundation for developing an understanding about the interaction between humans and wilderness. This work offers the reader an encompassing sense of wilderness and healing. However, the purpose for this clinical project was to explore wilderness and healing from experiential, descriptive, experimental, and phenomenological perspectives. Towards that end, the constructs explored within this review were synthesized and presented in a manner that facilitated answering the study's three guiding research questions. Based on these findings, it was possible to draw conclusions about each question and the potential benefits for therapeutic practice and healing. In addition, the findings from this review were used for exploring the implications for practice as well as recommendations for future study.

CHAPTER IV: FINDINGS AND DISCUSSION

This comprehensive critical review of the empirical and theoretical literature on wilderness therapy revealed that numerous theorists concur wilderness therapy is an effective treatment approach for several populations. Specifically examined were the benefits for youth at risk, women, and families. Identifying how wilderness therapy is defined still requires more research and collaboration (Russell, 2001). The recommendations, in Chapter Five, will explore in detail the avenues for further research. The findings documented herein are organized in alignment with the central theme of each of the three guiding research questions.

Diverse Benefits from Wilderness Therapy

Research question one. What is wilderness therapy and how can it be used to benefit clients?

Embracing a general definition of wilderness therapy, youth are well suited for this modality for a variety of reasons. Wilderness therapy challenges youth to take on responsibilities they may never have had at home (Gass, 1973). The birth of the Industrial Revolution meant children were no longer responsible for the survival of their family. Later, youth could play and not have to worry about doing daily chores to keep the family farm running. As a result, youth and adolescents often did not have a role to keep up with; therefore, going to school and socializing became the child's primary responsibilities. This has made youth passive in their learning about life until they moved out of the house and had to assume responsibilities that were new (Kimball & Bacon, 1993). The practice of wilderness therapy involves teaching clients hands-on skills and consequences for their behaviors and personal responsibility. If an adolescent forgets or

leaves something behind, he or she has to live the day without this necessity and will have to learn to deal with this.

The practice of wilderness therapy also involves goal setting that is reasonable, specific, and attainable (Hattie et al., 1997). Learning to establish realistically attainable goals during adolescence is an appropriate and timely skill to master before becoming an adult. This is especially necessary when the goals are regarding work and family life. Wilderness therapy also helps adolescents develop self-assessment skills and learn new ways to deal with challenges that arise in daily living. When adolescents are placed in a wilderness environment, their usual routine is disrupted and they must find other new ways to deal with life's challenges. The research on this shows effective outcomes (Berman & Berman, 1994).

Youth at risk who have a significant drug and alcohol history typically have low internal motivation (De Leon et al., 1997). Wilderness therapy is appropriate for adolescents with low internal motivation due to the physical nature of treatment. The participating youth must cook their own meals, put up and take down their tents on a daily basis, hike considerable mileage each day, prepare themselves for changes in weather and temperature, and keep from getting lost. The intensity of the group interactions increases the adolescent's interpersonal skill building at a quicker rate than the typical group therapy scenario that meets only once each week.

Wilderness therapy is also effective to help youth stay physically healthy (Shields, Spink, Chad, Nazeem, Humbert & Odnokon, 2008). Clients who walk for many hours with a backpack expend a lot of energy and build muscle. At the end of a wilderness

therapy program, youth and adolescents feel better about their bodies. This can be particularly beneficial for youth who have obesity issues or eating disorders.

Wilderness therapy helps increase youth's emotional, cognitive, and psychological well-being through daily therapy usually held at night in a group format (Davis & Atkins, 2004). Outcome studies have shown positive increases in self-concept, self-esteem, and self-confidence (Gibson, 1979). Daily group therapy speeds up the process of healing for clients as compared to group therapy once a week. Group therapy during the night and exposure to each other during the day enables youth to test what they have been learning and discuss the process in therapy group.

In an indoor setting, group therapy, unless lead by well-trained clinicians, is often about people outside of the therapy room. If the clinician is well skilled, he or she will be able to make the group members the topic of discussion. Wilderness group therapy also intensifies the sense that the participant is not alone. Group therapy fosters cohesiveness, altruism, and vicarious learning (Corey & Corey, 2000; Yalom, 1985). Hill (2007) argues that wilderness therapy also provides unique experiences for Gestalt therapy and other here-and-now techniques, since youth are with each other all of the time (as cited in Melnick, 1980).

Wilderness therapy has been shown to be effective for increasing internal locus of control and self-efficacy (Hattie et al., 1997). The feeling of freedom in the wilderness increases spontaneity and can make youth more engaging, especially those adolescents for whom their attendance in wilderness programs is mandatory. Wilderness therapy is effective for reducing antisocial behaviors, conduct disorders, and similar delinquent behaviors (Wichman, 1991). Wilderness therapy helps those who are somewhat

impulsive. Participants are forced to consider their actions because the wilderness environment is less forgiving and requires youth to be self-sufficient. Interpersonal conflicts are dealt with almost in the moment on a wilderness journey. If a youth were to get into conflict with someone on the street in the inner city, this conflict might not be addressed or processed.

Wilderness therapy promotes family systems that show lasting changes in family dynamics (Harper & Cooley, 2006). After a 21-day treatment program, adolescents showed lasting changes in obedience to house rules, participation in chores, and improved communication with parents. Well-founded studies (Cottrell & Boston, 2002) posited that family therapy was superior in treating the family than working solely with the identified patient. The reasons for this are unclear due to a lack of research in family systems and wilderness therapy (Wells et al., 2004).

Trait anxiety was lowered in adolescents who participated in wilderness therapy (Ewert, 1988). Personality characteristics in avoidant personality disorder were also normalized (Ingeborg & Asle, 2006). Here, wilderness therapy was shown to be effective in increasing confidence in social situations by nature of everyday contact with others in group activities and nightly group therapy. People with avoidant personality disorder are notorious for avoiding social situations. Wilderness therapy outcomes with this population had similar success as indoor therapy sessions; however, wilderness therapy accomplished those gains sooner.

Abused women have had successful and effective treatment in wilderness therapy (Powch, 1994). Women find the spiritual and mechanical components of wilderness therapy particularly helpful. Abused women tend to benefit from confronting their deep

seated fear of rape (Griffin, 1971). Wilderness therapy brings their fears alive in some of the activities required to complete their daily tasks. Crossing a log over a raging river brings their fear alive and allows them to learn how to process their fear, by indirectly confronting the underlying demons of fear (Ewert, 1988). Wilderness therapy gives them immediate feedback, a sense of accomplishment, and empowerment. Research on Outward Bound wilderness therapy programs with abused women found lasting changes in entrenched personality traits (Marsh & Richards, 1989). The spiritual component of working with abused women in a wilderness therapy setting is inherent in the work. The natural setting can be a spiritual place in and of itself. Nature is often associated with femininity and women easily identify with nature in this way. The feminist perspective has its roots in ancient tribal customs and tribal people see the Goddess as a part of all life and see nature as sacred (Stone, 1979). Women tend to experience good relationships with nature and wilderness therapy. This approach can be a good fit for those who have previous experience with nature, whether this experience involves gardening, walking in the park, or extended backpacking trips (Powch, 1994). Abused women tend to suffer from low self-esteem, learned helplessness, and low self-worth. Wilderness therapy is effective assisting women make reasonable and effective choices. This can be accomplished through campsite selection, negotiating the weather, negotiating a trail, being the leader of the day, or focusing on solutions (Mulligan, 1991). Wilderness therapy offers women the chance to focus on themselves to harness their abilities and become more aware of their body's capabilities (Mason, 1987).

Wilderness therapy solo excursions have been effective for building and strengthening women's capacities for insight and reflection (McIntosh, 1989). Women

have time on the solo excursions for insight and reflection and this usually helps to improve mental health. This exercise tends to help women to become more aware of their own abilities as they apply them during the solo experience (Angell, 1994).

Subsequently, therapists can assist with the conversion and application of learning in the wilderness to the constructs and conflicts of daily living. Prior research has demonstrated carryover and sustainability for at least one year post-intervention. Further research is still necessary to explore how learning benefits are transferred and sustained for lifelong success.

Benefits of Experience with Nature

Research question two. What are the reported benefits of experiences with nature and how can they be used to benefit clients?

The comprehensive critical review of the theoretical literature addressing transpersonal ecology and ecotherapy suggested that wilderness therapy programs help people to form deep, lasting connections with the natural world (Besthorn, 2000). Transpersonal ecology provides a perspective that suggests new ways of perceiving ourselves, others, and the cosmos. The emerging views of self and self in relation to others can be inextricably linked to the wilderness experience.

Although transpersonal psychology and deep ecology are derived from different philosophical traditions, they do share some theoretical perspectives (Besthorn, 2000). A shared belief states personal growth involves connecting with humans, nonhumans, and the natural ecosystems (Naess, 1989). This approach requires individuals to participate and live in the environment rather than becoming a passive onlooker. The deep ecology movement is inherently psychological; thus, the combination of the perspectives of deep ecology and transpersonal psychology are referred to as transpersonal ecology (Fox, 1995). Transpersonal ecology states fundamentally that psychological transformation must accompany sociopolitical change. In order for a society to maintain itself, equal value for both the diversity of human relations and nonhuman relations must be coupled with psychological transformation.

Our modern mechanistic world tends to promote disconnection from nature. Transpersonal ecology posits that without a deep connection to nature, our natural world will not have a chance to flourish. As a result, humans will not be able to sustain their

lives; the continuation of this world requires people to become sensitive to the environment to appreciate and preserve it. Wilderness therapy and wilderness practice both facilitate spiritual, feminine, and transpersonal value systems that help sustain life on our planet. Coates (1999) suggested that Western material consumptive values are in direct contradiction with the facts of nature; these views fail to realize humans' deep need to connect with nature. The natural outcome of this dichotomy promotes a depression of the soul.

Psychological transformation can be fostered within wilderness therapy and wilderness practice. Wilderness practice is an applied approach of the transpersonal ecology viewpoint (Besthorn & Tegtmeier, 1999). Wilderness practice can involve activities such as gardening, flower picking, and encounters with pets. More involved practices can include wilderness backpacking or a weekend outing in a national park. Transpersonal ecology practice fosters a person's imaginative capabilities and the transpersonal attributes of nature to help form a meaningful bond with nature (Besthorn & Tegtmeier, 1999).

Large-scale correlational studies in ecotherapy have suggested that expanding human connection with nature improves wellbeing and overall health in people (Jones et al., 2008). Research in ecotherapy that involves using natural surroundings as a therapeutic tool has been in decline due to more recent demands for quantitative studies. Quantitative studies are more difficult to achieve than qualitative studies due to the finite parameters that are a part of quantitative studies, which also sets limits on complex potential outcomes. However, Jones et al. (2008) suggested there seems to be more growing evidence-based research demonstrating social, physical, and psychological

benefits when interacting and viewing natural landscapes. One of the main purposes of ecotherapy is to improve psychological functioning that involves natural surroundings (Burls, 2007). Orsega-Smith et al. (2004) conducted several studies involving physiological functioning and park use; finding active park users had lower diastolic and systolic blood pressure levels.

Ulrich (1984) found that those people who were recovering in hospital who had a window overlooking nature recovered more quickly and needed less pain medication than patients who had a brick wall outside their window. Prisoners who had a cell window to look out onto natural landscapes reported fewer ailments, specifically digestive illnesses and headaches (Moore, 1981). Ulrich (1979) conducted studies looking at the positive effects experienced by people who had access to natural scenes compared to those restricted to views of urban scenes. People viewing nature reported more positive effects than those who viewed urban scenes.

Kaplan and Kaplan (1989) developed a theory of attention restoration and discovered that people who had access to green space when recovering from stress had increased attention span and reduced levels of depression. Kuo and Sullivan (2001) found that individuals who had access to green space had lowered levels of aggression, violence, and mental fatigue, and they scored their life difficulties more moderately than people who did not have access to natural surroundings. Mind (2007) noted that more positive changes in self-esteem and mood (i.e., fatigue, tension, anger, and confusion) existed for those who walked in natural surroundings than those who walked in urban settings. Taylor et al. (2001) found that adult caregivers and their children developed greater capacities for self-discipline and delayed gratification by having access to natural

surroundings. Pretty, Griffin, et al. (2005) found that those who completed countryside activities experienced increased self-esteem in pre- and post-psychological assessments.

Laumann et al (2003) compared urban environments with green spaces to urban environments that were relatively barren, the subjects who had access to natural surroundings felt more positive about their neighbors, received more visitors, and expressed an increased sense of social intimacy. Bird (2004) found subjects who had access to green space engaged in more physical activity. Brown's (1992) research indicated that some motivation for elderly choices selecting a retirement home were associated with the accessibility of natural surroundings.

Reynolds (1999) found that subjects who exercised in a gym with plants or views of nature worked out longer, but reported that their workouts seemed to take less time, were more enjoyable, and they were willing to work beyond their goals. The research exploring the evolutionary perspective of the benefits of natural surroundings, suggested that humans might have a genetic predisposition that favors environments where they can observe vast expanses or long distances (Appleton, 1975). It was posited that seeing over long distances helped our ancestors to survive and to protect themselves from threats in the distance by becoming better prepared to defend themselves (Appleton, 1975).

Another phenomenon in the experience of nature as healing has been labeled wilderness rapture (Cumes, 1998). Difficult to define, indigenous cultures around the world describe wilderness rapture as an experience where one reaches a state of oneness and interconnectedness within oneself, others, and the natural world. Cross-culturally, wilderness rapture is also described as an experience whereby the person and nature meld into one experience. This feeling has been described as something greater than ourselves

(Cumes, 1998). Indigenous cultures have an uncanny ability to use nature as a healing process. Indigenous cultures live in harmony with the natural environment. A person can arrive close to the experience of wilderness rapture by going on an extended backpacking trip. The longer a person can tolerate being out in the wilderness, the more likely they are to feel a sense of wilderness rapture. This inner feeling of wilderness rapture can also be described as an experience wherein we become almost hypnotized by sounds or smells in nature. This experience is one where we lose our sense of separation from the natural world and we develop a sense of oneness and we become captivated (Cumes, 1998). A similar experience, which Maslow (1976) called peak experience, defined the awe and wonder that transcends personal boundaries as a transpersonal experience. The differences between wilderness rapture and peak experience is that wilderness rapture can be called upon at will and tends to be more intense than a peak experience.

Some ecological psychologists have blended Klein's (1946) object relations theory with Bowlby's (1969) attachment theory to provide an explanation for early childhood and adolescent experiences of nature that lead to positive experiences of nature throughout their life (Chawla, 2007). A main motivating factor for adults who pursued an environmental career, stemmed from early childhood experiences and memories that involved time spent exploring the natural world with loved ones in places that became special to them (Tanner, 1980). Chawla (1998) discovered through her research that those who became environmental activists attributed their career choice to memories with role models who encouraged them to explore the natural world, fostering positive experiences and even reading books about nature. Wells and Lekies (2006) discovered in their research that positive early childhood experiences were good predictors for adults

who recycle, participate in “green” social events, and vote for political parties that endorse the use of green energy and renewable resources.

Research from Kirby (1989) and Taylor et al. (1998) highlighted the fact that children who played in natural surroundings demonstrated greater capacities for creative and dramatic play than children who played in formal playgrounds. Children’s play in the natural environment provided for more varied experiences than formalized play. The opportunity for varied experiences has been shown to be transferrable to capacities building positive outcomes in social competence in both school and work environments (Barker & Schoggen, 1973).

Winnicott (1958) posited that caregivers who took pleasure and genuine interest in their child helped children them to feel valued and increased children’s their initiative to care for themselves and the natural world. Kellert (2002) asserted that children who had access to ongoing experiences in natural surroundings were more likely to experience healthy maturation and adult development. According to Kellert (2002), experiences in the natural world can involve playing in a forest or interacting with pets. Child interaction with pets promotes care for the pet, in them, and with other human relationships (Kellert, 2002).

Uniting Relational Psychology, Wilderness Therapy, and Nature Experience

Research question three. How can relational psychology blend wilderness therapy with the philosophies of transpersonal ecology and ecotherapy practice to develop a comprehensive perspective of wilderness as healing to benefit clients?

Relational psychology places a strong emphasis on the meaning a person gives to experiences that occur between people and the environment (Santostefano, 2008b). From a relational standpoint, people are highly motivated by the meaning they construct in relationships with nonhuman and human environments. While transpersonal ecology talks about the importance of feeling connected to human and nonhuman environments, relational psychology's focus tends to be most concerned with what is occurring between two objects. From a relational psychology perspective, the objects could be human or nonhuman; however, the meaning formed by observing those relationships is understood via an individual's history and personal style of emotional expression (Santostefano, 2008b).

Santostefano (2008ab) disagreed with ecopsychologists' assertion that nature is inherently healing. Santostefano (2008ab) asserted that ecopsychology fails to consider the developmental tasks a person needs to experience before it is possible to benefit from what nature has to offer. Therefore, Chawla (2007) concluded that early childhood experiences play an important role in the future enjoyment of experiences in nature.

Santostefano (2008ab) also mentioned the importance of working through certain developmental tasks before appreciating what nature can offer. Santostefano (2008ab) stated that early childhood experiences create embodied life metaphors that are representative of what the child has experienced. These metaphors have meanings that

are connected to the present environment, which enables the child to develop expectations for their current activities. If the early childhood experiences were relatively free from significant developmental obstacles, the embodied life metaphors created during the child's early years will serve the child well in terms of helping them to negotiate a wide variety of environments in one's present and future activities. Positive early experiences in nature will serve to predict positive future encounters in nature. These embodied life metaphors developed early in the child's life will continuously be revised through adolescence and into adulthood (Overton, 1994; Santostefano, 1994). Following this logic, those who stand to benefit from wilderness therapy the most will be individuals who have had positive experiences in nature as a child or adolescent.

In terms of clinical application, therapists need to consider the developmental issues of the child, adolescent, or adult when engaging clients in the wilderness. Some people are afraid of the wilderness; therapists need to be sensitive to this so the wilderness itself does not become a barrier to effective therapy. Any environmental issues that arise for the client who participates in wilderness outings needs to be addressed at the outset of therapy. For some clients, wilderness therapy might not be a good fit if they experience too much anxiety from the natural environment. A sensitive therapist can assist the client working through some of client/their issues while being in the wilderness; successful support for processing may enable wilderness therapy to be an effective intervention. Santostefano (2008b) also mentioned the importance of the therapist helping the client repair, recover, and successfully negotiate all environments. The therapist needs to understand the underlying meanings the client has for human and nonhuman environments. The therapist also needs to be aware of the meaning they

personally hold for human and nonhuman environments as well as how they negotiated their developmental obstacles in nature as a child or adolescent. Santostefano (2008b) noted that research in the area of relational psychology and wilderness therapy and outdoor play needs to be further developed. Santostefano (2008ab) suggested that all mammals, including humans, experience the natural world as a continuation of their bodies. More studies are needed to discover how nonhuman environments can be integrated into wilderness treatment as a continuation of the human body.

CHAPTER V: CLINICAL AND RESEARCH IMPLICATIONS

This critical review of the literature has focused on the phenomenon of wilderness experiences that has been familiar to many world cultures for thousands of years. The review encompassed consideration of these experiences for their potential application within the realm of psychotherapeutic practice and healing. The application of the constructs explored throughout the review to clinical practice has not been sufficiently studied or documented. Therefore, the consideration of the wilderness experience and its therapeutic value has become a relatively new topic for researchers. From the critical review of the literature on wilderness therapy, this researcher became aware of the fact that wilderness therapy is still emerging as a professionally standardized field. However, implications for practice and future research can still be drawn associated with the potential impact of wilderness therapy, wilderness itself or natural landscapes, and simple activities such as gardening or walking in gardens, which can all influence a person's mindset for healing.

Implications for Practice

Research exploring the healing aspects of nature demonstrated that wilderness therapy can be very effective for several populations. It has been shown that wilderness therapy can decrease pathological symptoms, such as depression and anxiety, while also benefitting individuals without specific psychopathology. In addition, wilderness exposure is also beneficial for individuals experiencing physiological symptoms of stress or frustration, as well as more overt health issues. Exposure to nature has clinical benefit for individuals pursuing or maintaining healthy outlook, mindset, and physical welfare.

Overall, the critical review of the literature suggested positive outcomes for

wilderness therapy treatment. However, little is known about how the process of wilderness therapy serves to promote changes in problematic behaviors of adolescents or adults. While successes have been recorded, it seems little is known about the extent and conditions required to promote such positive changes within wilderness therapy programs. The research is unclear regarding what environmental situations work best for which specific clients. As well, wilderness therapists seem to lack clear guidelines regarding the identification of activities best for specific types of therapy or manifesting the best therapeutic outcomes. This is a concern for wilderness therapists who want a program that will work for a specific population. This is also a concern for property managers who want to protect the integrity of the landscape while excursions are being conducted in the wilderness. Therefore, for realistic recommendations of implications for practice, further study must be conducted. With proper evidence-based findings from mixed-methods studies, it may become reasonable to suggest:

1. Parameters for defining the natural/wilderness experience versus therapeutic interventions must be documented.
2. Guidelines for therapy and targeted outcomes for specific populations must be identified.
3. Credentialing processes and formal educational plans must be developed to reliably prepare qualified practitioners.
4. Efforts to use wilderness within therapy or formal therapeutic programs should be documented to contribute to ongoing research for field development.

Recommendations for Future Research

Most of the documented studies were conducted without longitudinal information concerning the extended therapeutic benefits of wilderness therapy programs. Further, the majority of the studies in the available research used comparatively small sample sizes. Therefore, more research is needed to critically evaluate staff requirements and program guidelines to ascertain the therapeutic benefits of current programs and the implemented interventions. Many of the research studies failed to describe how therapeutic approaches were associated with goal outcomes. Most of the research studies were unable to show how specific presenting problems were assessed and addressed with each wilderness program. More empirical studies need to be conducted to address the influence that wilderness therapy programs have for specifically identified populations. This would provide necessary information since the standards of practice within this field is lacking.

Another gap in the literature is a widely accepted definition of what wilderness therapy is. A widely accepted definition would provide guidelines not only for researchers, but also for therapy staff and managers who are concerned with protecting the integrity of the natural environment. A standard definition would also help to address the misperceptions about wilderness therapy and would encourage the general population to consider wilderness therapy as a potentially viable treatment option.

Having a standardized and widely accepted definition for wilderness therapy would also facilitate funding needs. Further, government agencies might be more inclined to provide funding for wilderness therapy for children and youth or other identified populations. As stated in the literature, many youth prefer activity-based therapies

compared to talk therapy alone; wilderness therapy programs can provide for what children and youth need. Through research, the distinction must be made between wilderness interventions, excursions, and horticultural or other vocational therapies.

Wilderness therapy that is family-focused is understood to be effective but is not yet empirically understood. Continued research is needed to better demonstrate how wilderness therapy can positively influence family functioning. This research will make it possible to promote specific methodologies designed to maximize attainment of objectives within treatment interventions for adolescents.

Wilderness therapy is becoming more connected with feminine spirituality. The feminine spiritual perspective is rooted in indigenous tribal and religious customs. Wilderness therapy involving a feminine perspective is moving away from the Outward Bound model. However, this indicates another lack within the research literature contemplating the effects of wilderness therapy specifically for women. There is a lack of research literature regarding abused women and wilderness therapy healing methodologies. There seems to be no research about the most effective interventions for abused women. Given the increasing societal awareness of the cost of domestic violence, further research exploring how wilderness therapy can benefit abused women would be helpful for healing purposes as well as field advancement.

What is known in the research literature is that wilderness therapy maintains similar outcomes as indoor therapy. However, wilderness therapy seems to achieve these results sooner. It is believed that this increased speed of results is attributable to the intensity and nature of participants exposed to the wilderness within a small group for an extended period. While most wilderness therapy programs are created to help clients deal

with unresolved issues, more research is needed to assess the sustainability of these changes after therapy is completed.

Overall, the critical review of the literature suggested positive outcomes for ecotherapy treatment. An increasing amount of evidence-based literature suggests that ecotherapy benefits clients' social, psychological, and physical functioning. Although there is a lack of research addressing more specific benefits of ecotherapy, there seems to be enough to safely conclude that ecotherapy can significantly benefit clients' mental health. At minimum, there is sufficient evidence to indicate that further study is needed. Prior research can be replicated with the same or other populations, different timelines, other locales, and within the contemporary millennium.

More research is needed to arrive at an understanding of how ecotherapists can apply their techniques to benefit society more generally. Research is also needed to investigate how wilderness and other green space options can be healing to clients and their relationships. Few graduate counseling and psychology programs offer training in ecotherapy. More academic programs need to include ecotherapy coursework to prepare therapists for the work.

The societal trend is increasingly focused on technology as a source of entertainment; however, this promotes a disconnect from the environment. Ecotherapy can serve to provide a balancing influence on society's trend towards greater disconnection from the environment. A balancing influence can serve to provide identified patients as well as the general society with a venue for personal healing.

The overall research literature exploring childhood experiences in nature show that children are most likely to form bonds with nature when caregivers offer these

experiences to them in an appreciative way. The caregivers' attitudes towards nature are relayed as lasting bonds between the caregiver and the child as well as lasting bonds between the child and the natural environment. What happens during these moments when caregivers are interacting with children in the natural environment is largely unknown and deserves further research. Children's positive experiences in nature tend to promote social competence in later life. How this happens is also relatively unknown. The literature indicates the unlimited variety of experiences that nature can offer, which lead to social interaction and competence. How childhood and adolescent experiences in nature lead to social competence is largely unknown and deserves more research. The extent that adult participation as a caregiver respecting nature is truly related to fostering early childhood experiences and subsequent positive attention to natural environments as the individual grows up is also unknown. Consistent with object relations and interpersonal theories, several questions arise. Specifically, we inquire whether adults who are primary objects of attachment facilitate early childhood environmental interests and behaviors with strong influence. Consistent with relational psychology, a child's interest in nature is dependent upon the child's developmental stage. Counter to ecopsychology, relational psychology asserts that nature is not inherently healing. Therefore, it is also logical to inquire how much influence caregivers really have on childhood, adolescent, and later adult interests in nature. However, nature can make a powerful impact on healing for those who see nature as inviting. Further research needs to look at how caregiver influences play a role in children's future interest as adults in the wilderness as a source for healing. Research in this area needs to consider what happens when caregivers introduce nature to children, including an exploration of how caregivers

and children share information when in the natural environment. Research must embrace developmental influences and consider what children do instinctively as they grow older, regarding interacting in natural or wilderness environments.

Based on the personal experience shared in this study, numerous questions arise about instinctive healing, transformative and transcendental experiences, as well as the dynamic relational roles and the impact both upon and from wilderness experiences. When caregivers suggest that nature is dangerous or unattractive, research must explore the counterintuitive pursuit of nature as a source of healing despite caregivers' protests. Similarly, research can explore what happens to children when they first enter the forest on their own. Research should include identification of the challenges that enable the child to enjoy the wilderness and inspire the belief that nature can offer them respite or release. Research needs to be focused on longitudinal observations that investigate how children overcome developmental milestones and complex relational changes. With the philosophy of transpersonal ecology in mind, there is a distinct lack of research concerning how children in Western society are able to enter a transpersonal state of awareness in the wilderness. Therefore, researchers must ask whether there are instinctual connections made between wilderness and healing. Research needs to focus on how children become aware that everything in the universe is connected, so they might experience an awakened feeling of the existence of something greater.

The most important avenue for future research lies in continual elaboration of the views associated with wilderness as healing. We must develop greater understanding of the potentials that simply exist in and commune with nature. As stated by Allan Watts (1969) "You only find flowers in an environment that supports them" (p. 1). We are

facing a massive field of potentials. If we fail to acknowledge the splendor, we may condemn the planet, along with all species of plants and animals, including humans, to be overrun by the machinations of progressive development that are destroying the essence of Earth.

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