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Integrating Nature into the Helping Professions

Jacob Radtke
Winona State University

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Integrating Nature into the Helping Professions

Jacob Radtke

Winona State University

Abstract

A growing body of research is being developed which indicates that individuals and communities interacting with nature are experiencing benefits to both their mental and physical health. Yet how nature produces these benefits differs among researchers and though consensus can be found regarding human interaction with nature a definitive solitary answer does not currently exist. Despite differences amongst researchers on how nature impacts the human body a growing number of helping professions are integrating use of nature within their scope of practice. Cities and towns are also increasing the use of nature within infrastructure and planning as the positive effects and impact of nature cannot be ignored.

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Introduction

For much of history what was known about the effects of nature was often based upon philosophical or religious beliefs. Many cultures and civilizations have placed respect or reverence for nature at the forefront of their society knowing that humans have a unique and important need for interaction with nature. Aspects of nature have therefore been deified and continue to be so within many cultures and nations both developed and developing. Yet there has been a shift from a primarily intuitive respect for nature to a scientific basis and argument for the use of nature in helping to heal humans plagued by illness, stress, fatigue, and a myriad of other ailments.

This growing body of research that focuses on nature is not without diverse viewpoints on how nature can help to alleviate suffering for its spectators. In this paper the current viewpoints on how individuals interact with nature and the positive effects that result will be explored as well as how and why these viewpoints may differ theoretically. The theories that will be discussed are Roger Ulrich's (1981) psycho-evolutionary theory and Rachel and Stephen Kaplan's (1992) attention restoration theory. Both Ulrich and Kaplan's theories highlight the positive impact of nature for healing, but differ on how nature impacts an individual and how these effects are experienced.

In addition to highlighting how humans interact with nature this paper will also explore current uses of nature as a therapeutic modality and how interaction with nature is impacting research participants. Research is also being conducted to determine the impact of nature in several other disciplines including city and urban planning (Groenewegen, Berg, Vries, & Verheij, 2006; Thompson, Roe, Aspinall, Mitchell, Clow & Miller, 2012), and higher education settings (Kanters, Bristol, & Attarian, 2002). Along with the use of nature within counseling

settings, this paper will address the growing number of therapeutic frameworks which center around the use of nature such as nature therapy (Berger & McLeod, 2006), outdoor education (Neill & Heubeck, 1998), and wilderness therapy (Russell, Hendee, & Phillips-Miller, 1999; Rutko & Gillespie, 2013). Lastly, cultural and ethnic differences in the use of nature as a therapeutic tool will be explored as different ethnic groups may experience and interact with nature in unique ways (Kaplan & Talbot, 1988).

Review of Literature

Though many of the early ideas and beliefs about the impact of nature on health were philosophical or theoretical, an increasing body of research is now validating what had been observed and stated in these earlier viewpoints. According to Kjellgren and Buhrkall (2010) “humans have an evolutionary, aesthetic preference for the natural environment” (p.464). Lothian (2010) highlights this evolutionary belief of the impact of nature citing the work of Ulrich (1984) who postulated in his psycho-evolutionary theory that “characteristics of the environment (“preferenda”) provide an early warning signal for safety and survival that triggers positive emotional reactions “ (p.4).

Psycho-Evolutionary Theory

Ulrich (1983) focused primarily on nature’s impact and influence on an individuals affect as opposed to the impact or interaction of one’s cognition with nature. Ulrich notes that his use of the term affect is synonymous with one’s emotion and does not encapsulate the broader definition of affect, which can also include an individual’s drive state or motivation. What Ulrich discovered was that persons exposed to nature settings experienced both adaptive and action impulses that impacted one’s behavior after having viewed or encountered a nature scene. “For instance, a person viewing an attractive natural setting might feel strong preference and interest, and an impulse to explore the area on foot, but could suppress the behavior and simply continue looking from the same vantage point” (Ulrich, 1983, p. 93).

Ulrich (1983) continues that an individual in a nature environment then develops “feelings of like-dislike and interest, and most of the states are linked to approach-avoidance behaviors and impulses” (p.93-94). Ulrich found that an individual tended to develop preferences of nature scenes that had a direct correlation on a person’s well being. Scenes or

images that were found to be most pleasing or elicit the highest state of arousal were classified as “unspectacular” (p.105) and met the following criteria:

1. Complexity is moderate to high.
2. The complexity has structural properties that establish a focal point and other order of patterning is also present.
3. There is moderate to high level of depth that can be perceived unambiguously
4. The ground surface texture tends to be homogenous and even and is appraised as conducive to movement.
5. A deflected vista is present
6. Appraised threat is negligible or absent (Ulrich, 1983, p.105).

In terms of negative reactions to a nature scene or image, one would need to evaluate the image or experience of nature in the opposite terms of the description above. For a negative evaluation an individual would consider the scene to lack complexity, depth, observe uneven or ill-defined surface textures, and appraise a threat within a scene. In summary, the setting to which an individual will experience the greatest benefit from a nature scene will include “a level ground surface, considerable spatial openness, the presence of a pattern or structure, curving sightlines and the presence of water” (Council of the Netherlands, 2004, p. 48).

These preferences for nature and subsequent health benefits, Ulrich (1983) believed, lies in the evolutionary make-up of individuals. As stated before Ulrich (1983) postulates that an individual observing a nature scene experiences emotions first and cognitions second and will tend to feel his or her environment. According to Lothian (2014) “emotions lie in the brain’s limbic system, which is believed to be one of the earliest developed part of the brain in human evolutionary history, whereas cognition occurs in the neocortex, a much more recently developed

part of the brain” (p. 4). Lothian goes on to highlight research done on facial expressions which when measured can provide insight about an individual’s reaction more rapidly than cognition or thought.

Ulrich’s development of his psycho-evolutionary theory developed in response to the many intuitive writings and beliefs held by individuals of the power of nature. Ulrich (1979) notes that several prominent individuals such as “Frederick Law Olmsted strongly believed that urban dwellers find nature relaxing and that nature can cause one’s mind to rest” (p.17). Ulrich notes that as a result of this intuitive sense of the impact of nature individuals such as Olmsted as well as many other city planners and prominent architects and politicians have lobbied for the incorporation and preservation of nature and green space. As a result of these intuitive beliefs about nature Ulrich developed several studies to test the hypothesis of many who held nature in high regard.

One of Ulrich’s (1979) initial studies measured study participant’s psychological well-being in response to nature and urban images.

The basic design of the experiment involved showing coloured slides of outdoor environments to two groups of mildly stressed subjects. One group was shown 50 slides of unspectacular nature scenes dominated by green vegetation. The other group viewed 50 urban scenes lacking nature elements (Ulrich, 1979, p.17).

In order to measure the participants psychological well being Ulrich (1979) used a pre-test post-test format and used parametric testing to determine levels of significance between subjects test scores. According to Ulrich the results of the study revealed that study participants reported feeling worse after having viewed the images of the urban scenes. In contrast to the decrease in psychological well-being of participants, individuals who viewed nature images were found to

have “a consistent pattern of improvement in well-being, and the changes for two factors are statistically significant” (Ulrich, 1979, p. 20). The two factors that Ulrich found to be highly significant ($p < .005$) was Positive Affect and changes in Fear Arousal. “Overall the results strongly suggest that exposure to the nature scenes had mitigating influences on the subjects’ anxiety states” (Ulrich, 1979, p.20). Action terms were identified which corresponded with the significant factors as participants identified feelings of “affection, friendliness, playfulness, and elation” (p.21). The above research helps to understand the beginning stages of Ulrich’s psycho-evolutionary theory, but is insufficient in providing a complete rationale for the theory’s development.

In a second study completed by Ulrich (1981) research was directed not only on nature’s impact of an individual’s psychological well-being but potential impact on an individuals psychophysiological reactions. Ulrich used three types of environments in his study that included “nature with water, nature dominated by vegetation, and urban environments without water or vegetation” (p.525). One notable difference in this study was that study participants were not found to be mildly stressed at the time the study was completed but were rather “unstressed individuals in normal arousal states” (p.525). Ulrich hypothesized that individuals would experience psychophysiological benefits from the nature images as compared to the urban settings with more significant benefits accompanying the nature scenes which include water.

In order to determine nature and urban images impact on participant’s psychophysiological reactions Ulrich (1981) measured both the alpha wave amplitude and heart rate of participants. According to Ulrich “physiological findings are an important complement to the more subjective psychological data, because physiological measurements are valid indicators of the arousal or activation state of an individual” (p.525). Physiological research and medical

data also have been found to have a greater impact on “governmental action and public concern regarding environmental quality” (Ulrich, 1981, p.525).

The results of the study revealed that participants experienced psychophysiological reactions and benefits as a result of viewing nature images as opposed to viewing images of urban settings (Ulrich, 1981). Specifically Ulrich notes that the results “support the conclusion that the subjects felt more wakefully relaxed while viewing the vegetation as opposed to urban scenes, and that the two environments had different effects on electrocortical activity” (p.546). Also of note in this particular study was that results did not differ between sexes and are therefore applicable to both males and females with regards to the alpha measurement results of the study. Though there was statistically significant data regarding alpha reactions in this study, no statistically significant data was discovered from the experiment regarding subject’s heart rates though some data revealed that heart rates for open eyed individuals revealed a pattern consistent with Ulrich’s earlier hypothesis of nature being “more effective in sustaining arousal/attention” (Ulrich, 1981, p.548). In conclusion of the study Ulrich noted the following:

For individuals experiencing stress or excessive arousal, nature views appear to reduce arousal more effectively than urban scenes and hence are more beneficial in a psychophysiological sense. The benefits of visual exposure to nature, compared to urban content, may be less for unstressed people in normal arousal states. However, as the findings of the present study suggest, the effects of nature exposures even on unstressed individuals can be significantly more positive than the influence of urban views (Ulrich, 1981, p. 550).

Attention Restoration Theory

Though complimentary in many aspects Stephen and Rachel Kaplan's Attention Restoration Theory (1992) develops a different framework for why nature has positive effects on the human body and mind (Lothian, 2014). The Attention Restoration Theory derives its main argument from psychologist William James and his developments within the field of attention (Kaplan, 1992). According to Kaplan (1995) William James "identified a kind of attention, which he called 'involuntary,' that is evoked by something interesting or exciting in the environment" (p.135). This type of attention requires minimal effort and therefore can have limitations such as an individual being engaged in a setting which is of little interest as well as limiting the engagement of an individual's higher level thinking (Kaplan, 1992). Individuals are not limited to only involuntary attention, however, but are also able to utilize voluntary attention, which does take effort on behalf of the individual. Voluntary attention "permits one to focus selectively upon the environment, and to engage in higher mental processes such as problem solving and planning" (Kaplan, 1992, p.135). Individual's utilizing voluntary attention are therefore able to focus on a specific task or problem despite the fact that the task or activity may hold little to no interest to the individual (Kaplan, 1995).

Despite his observations about voluntary attention and effort William James did not address fatigue when describing or exploring the use of voluntary attention (Kaplan, 1995). Kaplan notes that developments in the field of neurology and the effects of directed attention have helped to explain the negative impact that directed attention can have on an individuals executive functioning and that when directed attention is used for sustained periods of time one's mind can in a sense become fatigued.

Any time one has worked intensely on a project and subsequently finds oneself mentally exhausted, one has experienced this unwelcome state. The typical state of mind of students at the

end of a semester is a familiar example. In fact, even a thoroughly enjoyable project, if sufficiently intense and sufficiently prolonged is likely to lead to this same outcome (Kaplan, 1995, p. 170).

Kaplan (1995) notes the peculiarity of fatigue with relation to one's directed attention, as it is so integral to daily functioning. Yet when one views directed attention from an evolutionary viewpoint the limitations of sustained directed attention become evident. For an individual to engage in directed attention for significant periods of time "would make one vulnerable to surprises. Being vigilant, being alert to one's surroundings may have been far more important than the capacity for long and intense concentration" (Kaplan, 1995, p. 170). Sustained directed attention may therefore have made individuals more susceptible to danger in his or her environment that could otherwise have been detected by using involuntary attention mechanisms.

Though direct threats may not be relatable to the present state in a majority of developed countries directed attention is still being exercised at high levels and the result can be significant direct attention fatigue which can negatively impact several key functions that are integral to human effectiveness (Kaplan, 1995). It is imperative to note that the use of directed attention is not in itself negative, but that when used for excessive periods of time can result in adverse effects. A majority of these effects impact a person's ability to problem solve and utilize other mental faculties, but effects are not limited to cognitive functions. Direct attention fatigue has also been shown to negatively impact actions and can result in physical fatigue that can have a damaging impact. In summary Kaplan (1992) concludes that an individual experiencing direct attention fatigue will experience the following:

They have difficulty concentrating and are highly susceptible to distraction find it difficult to make decisions; are impatient and inclined to make risky choices; are irritable

and less likely than usual to help someone in distress; have difficulty either planning or carrying out previously made plans (Kaplan, 1992, p.136).

Continuing with a focus on the work William James, Kaplan (1995) highlights the differences between involuntary and voluntary attention and suggests, “both types of attention are similar in being inhibitory and in having their effect through suppression of competition” (Kaplan, 1995, p.172). The difference between voluntary and involuntary attention is primarily that involuntary attention requires little to no effort that Kaplan hypothesizes can help to reduce the effects of direct attention fatigue. This type of involuntary attention Kaplan describes as “fascination” (Kaplan, 1995, p. 172) as a result of James’ language being easily misinterpreted or misconstrued in common nomenclature. Using the term fascination is also more appropriate as involuntary attention may be more absorbing than previously thought.

Kaplan (1995) comments that there are multiple types of and sources from which fascination can be drawn. Fascination can come in many forms and may be diversely experienced by individuals as fascination may come in the form of experiences or visual landscapes. Kaplan differentiates between fascination highlighting that fascination “can also derive from extremes along a ‘soft-hard’ dimension. Thus, there is the ‘hard’ fascination of watching auto racing and ‘soft fascination’ of walking in a nature setting” (Kaplan, 1995, p.172). Kaplan primarily focuses on one’s ability to use soft fascination in that soft fascination “can further enhance the benefits of recovering from directed attention” (Kaplan, 1995, p.172).

This understanding of soft-fascination is integral to conceptualizing Kaplan’s development of the restorative experience in response to direct attention fatigue. An individual’s ability to engage in an environment with minimal effort is directly correlated to have restorative properties for the individual experiencing direct attention fatigue (Kaplan, 1995). Yet Kaplan

(1995) notes research by Kaplan and Talbot (1983), which highlights three other elements of a restorative environment that are integral in developing a restorative experience. Lothian (2014) highlights that these other elements are the following:

- “Being away- separation from mental activity and from the everyday environment;
- Extent- the diversity and scope of the environment to provide an alternative setting sufficient to remain engaged;
- Compatibility between “the environment and one’s purpose and inclinations” (Lothian, 2014, p. 5).

Kaplan (1992) determined that restorative experiences are not limited to nature settings but observed that nature settings obtain all the components of the restorative environment and are conducive for addressing mental fatigue. Kaplan (1992) and his partner, Rachel Kaplan, discovered the restorative effects of nature settings unexpectedly when they were petitioned by the U. S. Forest Service to study the effects of an ongoing wilderness program located in the upper regions of Michigan. Neither Stephen or Rachel Kaplan expressed that nature settings were a primary field of study, but determined that following research of the effects that nature had on the wilderness activity participants “was well worth the effort and turned out to have far broader applications than we would have expected” (Kaplan, 1992, p.137). Kaplan (1992) notes the following from his initial study with partner Rachel Kaplan:

The participants in the wilderness program we studied found the experience to be a profoundly restful and even healing one. In addition to recovery from mental fatigue, many of them found themselves in a reflective mode, stepping back to consider their lives and their priorities. They found nature more powerful, and at the same time more

comforting, than they have ever imagined; they left the wilderness at the end of the trip worrying about how they could maintain their contact with this unexpectedly significant environment (Kaplan, 1992, p. 137).

Though the results of the study above may seem to imply that for one to experience benefits from a nature setting one must be immersed in a nature setting with minimal to no human influence the research does not support this implication. According to Kaplan (1992) even small nature settings can result in restorative effects on its observers. Such nature settings are often more accessible to individuals in more largely populated areas and Kaplan (1992) notes that the effects are strikingly similar to nature settings that are vast and void of human interference. Kaplan also notes that work of Rachel Kaplan (1973) who discovered that garden experiences could also result in similar restorative affects for observers.

Nature Research

Considering the above information about the impact that nature has on both physical and mental health, research has been conducted on how to include nature not only in counseling and other service related industries, but also in city planning and urban planning. The remainder of this paper will therefore shift from a theoretical understanding of the impact of nature to research being conducted on how nature interventions are being used in a counseling setting. Research will also be explored on the impact nature is having in the disciplines of city and urban planning and how these nature interventions impact communities and individuals. Lastly, research about the how nature impacts individuals of varying ethnicities will be explored. Nature may be substituted for other terms in several of the following paragraphs as researchers have varied terms when referring to nature settings. Specifically the term green space is used when referring to nature settings within the field of urban planning and architecture.

City and Urban Planning

An increasing concern has grown amongst researchers regarding the decrease in access of green space as a result of urbanization.

Due to increasing urbanization, combined with a spatial planning policy of densification, more people face the prospect of living in less green residential environments. Especially people from low economic strata, without resources to move to greener areas outside the cities, will be affected. This may lead to environmental injustice with regard to the distribution of (access) to public green space (Groenewegen, Berg, Vries, & Verheij, 2006, p.7).

This decrease of green space is of concern considering the health benefits associated with exposure to nature even when the nature scene is small. Thompson, Roe, Aspinall, Mitchell, Clow, and Miller (2012) indicated that one benefit of green space within urban settings was its impact on decreasing stress for deprived communities. Thompson et al. (2012) found that by measuring cortisol levels in study participants who were exposed to increased green space produced a negative correlation for stress both in cortisol levels and perceived levels of stress. This is an integral study as it validates Ulrich's (1979, 1981) psycho-evolutionary theory in that nature has the means to directly impact stress. In addition, the study by Thompson et al. indicates that the stress reduction properties of nature can impact entire communities, especially in the area of resiliency to counteract the "negative effects of urban deprivation and the stress-related consequences" (Thompson, et al., 2012, p.227).

Maas, Verheij, Groenewegen, Vries, & Spreeuwenberg (2006) conducted an epidemiological study to determine the impact that green space can have on one's health. Maas et al. studied various datasets gathered by general practitioners in the Netherlands, which asked

questions pertaining to general health as well as socio-demographic background. Maas et al. (2006) then compared this data set to another data set that viewed topographical and landscape and was able to compare the health of individuals using a 1km and 3km radius. The results of the study determined the following:

In areas where 90% of the environment around the home is green, only 10.2% of the residents feel unhealthy, as compared with areas in which 10% of the environment is green, where 15.5% of the residents feel unhealthy. The relation is equally strong for the 1 km and the 3 km radius (Maas et al., 2006, p. 589).

Citing work by Thompson and Mitchell (2008) Lothian (2014) notes that green space has also been discovered to impact mortality. Lothian states that based on the research of Thompson and Mitchell that mortality decreased as green space increased. Mitchell and Popham's research (as cited by Lothian, 2014) determined that over the course of a year access to green space "saved 1328 lives annually" (Lothian, 2014, p. 41). The location of this study may be important though as it took place within an Eastern European demographic. In a study of that measured some of the larger urban spaces within the United States, research concluded that mortality actually increased within the greenest spaces and did not account for specific decreases in mortality related to diabetes, heart disease, lung cancer, or automobile accidents (Richardson, Mitchell, Hartig, Vries, Astell-Burt, & Frumkin, 2012). Despite research being mixed regarding mortality rates in greener cities, an abundance of research has shown the physical and health benefits of green space. As such, the research on the positive effects of nature is recommended for consideration when creating policy regarding urban development and city planning and zoning.

Green space is more than just a luxury, and the development of green space should therefore be allocated a more central position in spatial planning policy. Healthy planning should

include a place for green space and policy makers should take the amount of green space in the living environment into account when endeavoring to improve the health situation for the elderly, the youth, and lower socioeconomic status groups, especially in urban environments (Maas et al., 2006, p. 591).

Nature Within the Counseling Profession

There are multiple approaches and applications for the use of nature within the counseling profession. For this paper both nature therapy and wilderness therapy will be explored in addition to outdoor education and its use with both adolescents and college students. Differences between natural environments and simulated nature scenes will also be explored as they may also have implications for the use of nature within the counseling field.

Nature therapy has been developed in a manner where nature is not simply used as a tool within the counseling practice, but is an essential element and partner for healing (Berger & McLeod, 2006). Berger and McLeod (2006) note that the use of nature as a therapeutic tool is not a recent development, but can be traced back many centuries and more recently had been used by significant names in psychology such as Erik Erikson. Nature therapy, as it is described by Berger and McLeod, is a “postmodern experiential approach based on the integration of elements from narrative, eco-psychology, transpersonal psychology, adventure therapy, shamanism, and body-mind practices” (Berger & McLeod, 2006, p. 81-82).

Nature is described as an essential element as it is a free space that is not owned or controlled by either the therapist or client (Berger & McLeod, 2006). As result the space for counseling in nature can be chosen by the client and through the process of choosing the client attaches meaning and can make connections regarding the significance of that space. This is reminiscent of the practice of “sacred space” (Berger & McLeod, 2006, p. 83), which has been

used frequently throughout history and in many cultures is considered to have therapeutic properties. Building a home in nature can also assist clients in dissecting differences in their “natural world” and the world they would like to see. This practice is known as the “as if reality” (Berger & McLeod, 2006, p. 83) which is an intervention used in drama therapy aimed at helping a client consciously travel between reality as they experience it and reality as they hope it would be.

Additional uses of nature within nature therapy include the use of nature in creating rituals. Based upon patterns of periods of history where societies communed with nature more frequently Berger and McLeod (2006) postulate that the use of rituals by these societies “played a strong role and were extremely important in giving people a sense of order and security, fostering a feeling of togetherness and providing a sense of control over the uncertainties of life” (Berger & McLeod, 2006, 85). In essence nature therapy utilizes nature as a primary teacher and or counselor allowing for nature to create lessons and connections which the client may not yet be aware or cognoscente of. Despite qualitative data collected about nature therapy and its historical underpinnings, there remains an absence of statistically compelling data to validate its theories and at this time appears to lean heavily on interventions from other therapeutic modalities and historical and intuitive responses to nature.

Wilderness therapy is also a form of therapy that utilizes nature as a primary device or setting with which to conduct therapeutic interventions. Though wilderness therapy can be used for several different populations its primary use is for high-risk adolescents (Rutko & Gillespie, 2013). An additional difference about wilderness therapy is that the term wilderness is chosen over nature as the setting for wilderness therapy is often in an uninhabited area or space that may be more primal than other nature settings (Russell, Hendee, & Phillips-Miller, 1999).

Adolescents utilizing wilderness therapy often engage in this modality when facing a myriad of issues or concerns including “emotional, adjustment, addiction, and psychological problems” (Russell, et al., 1999, p.2). Through research into several prominent wilderness therapy programs in the United States, Russel et al. (1999) developed the following definition regarding the components of wilderness therapy:

Wilderness therapy features therapeutic assessment, intervention and treatment of problem behaviors, and assessment of outcomes. It involves immersion in an unfamiliar environment, group-living with peers, individual and group therapy sessions, educational curricula and application of primitive skills such as fire-making and backcountry travel. These processes are all designed to address problem behaviors by fostering personal and social responsibility and emotional growth of clients. Young people aged 12-17 are the most frequent clients (Russell, et al., 1999, p. 1).

Similar to nature therapy, wilderness therapy also views nature the integral and necessary component in the therapeutic process. Wilderness in wilderness therapy serves multiple purposes including being utilized for metaphor, natural consequences, and educational components. Participants in wilderness therapy move through the program in stages beginning with an introductory phase that is aimed at establishing goals for the participant and allowing for nurturing to occur (Russell, et al., 1999). The participant then begins a phase in which he or she begins to take personal and social responsibility for his or her actions. Lastly, the participant comes to a closing phase where he or she is able to transition to the next level of care and begin an after care plan.

Research into the impact of wilderness therapy has produced positive results that indicate the efficacy of the use of this modality with at-risk youth. Rutko and Gillespie (2013) highlight

research completed by Cason and Gillis (1994) who completed a meta-analysis of wilderness programming. Based on this research, it was determined that 62.2 percent of adolescents that participated in wilderness therapy experienced positive effects compared to those who did not participate. Rutko and Gillespie (2013) also highlight research by Russell (2003, 2005) who completed after-care research of wilderness therapy participants and found positive results at both the 12 and 24 month “post-treatment intervals” (Rutko & Gillespie, 2013, p. 222).

Wilderness therapy represents a sense of accomplishment for the client that is concrete and real and that can be used to draw strength from in the future. This sense of accomplishment is combined with physical health and well-being, which helps clients feel better about themselves, leading to increases in self esteem and the first steps towards personal growth—which the program views as a journey lasting a lifetime. The process also teaches clients how to access and express their emotions and why talking about feelings is important. In the enhanced self- concept is a sense of empowerment and resiliency, with clients believing that if they completed wilderness therapy, they can also complete other formidable tasks. Clients leave wilderness therapy knowing that they have only just begun the journey and need to continue their own personal growth process (Russell, et al., 1999, p.21)

Nature and wilderness therapy are not the only two forms of therapy that rely on the use of nature to help address client concerns. Outdoor therapy is another therapeutic modality that utilizes the outdoors when counseling and research highlighted that being outdoors was most significant for research participants (Revell, Duncan, & Cooper, 2014). In addition to therapeutic modalities outdoor education experiences are also producing research on the efficacy of nature and outdoor experiences. Kanters, Bristol, and Attatarian (2002) discovered that upon studying the impacts of a one-day outdoor experiential training on college students that the

activity “was an effective moderator for students’ feelings of anxiety-tension and depression” (p. 264).

Nature has also begun to be utilized in play therapy settings with adolescents. Individual case studies completed by Swank and Shin (2015) revealed that participants in nature-based child centered play therapy (NBCCPT) displayed an increase in positive emotions as well as a decrease in attention-seeking behaviors. Cohen (1993) also states that using nature can aid in self-regulation and can be used to help individuals address issues of “destructive habits, dependencies, and dysfunction” (p. 279).

Having discussed the current use of nature within counseling and education settings one must shift to understand and apply nature based interventions to be used within a counseling setting. One prominent understanding when using nature within therapy is emphasizing that nature in itself is therapeutic and has the ability to address physical and mental health concerns. Both nature and wilderness therapies emphasized that nature is as necessary a component as the counselor and is used for multiple purposes including metaphor, consequences, and development of relationships (Rutko & Gillespie, 2013; Russel et al. 1999; Berger & McLeod, 2006).

Conducting therapy in a setting where the client is able to view nature can also have benefits as “visually pleasant surroundings contributes towards reducing stress by restricting negative thoughts and eliciting positive emotions, as well as enhancing parasympathetic nervous system activity” (Kjellgren & Buhrkall, 2010). Applied to the counseling setting a therapist may wish to take a client on a walk or conduct the session where nature is present in order to reduce emotional difficulties or reduce stress. Yet counselors are not limited to use of real life natural settings and can also use simulated or images of nature that have also been shown to have therapeutic properties (Kjellgren & Buhrkall, 2010).

Lastly it is imperative for a counselor to understand ethnic differences or preferences of various cultures in order to effectively apply nature as a therapeutic intervention. According to Kaplan and Talbot (1988) though “a number of studies have reported ethnic difference in preferences, it is important to realize that few of these studies were designed with the purpose of focusing on ethnic issues” (Kaplan & Talbot, 1988, p. 108). As a result Kaplan and Talbot developed a study whose aim was to directly understand the impact of nature between ethnic groups; specifically between individuals from black and white communities.

Kaplan and Talbot (1988) measured ethnic preferences for nature using nature images that varied in landscape from manicured settings such as parks to more dense and wild images such as a forest. Using these images the goal of the study was to examine three specific questions:

1. Do substantial differences exist between black and white Americans in nature preference?
2. If there are such differences, do they follow predictable lines? (i.e. are specific environmental features associated with these differences)?
3. If such differences do exist, is this because of a relative disinterest in the nature environment among blacks? (Kaplan & Talbot, 1988, p. 108)

Using the images described above and participants of both black and white communities of Chicago and areas in Michigan, Kaplan and Talbot (1988) showed these images and collected data both on preference and how those preferences were arranged by the various ethnic groups. In order to answer the three questions above three separate studies were conducted in order to address the different focus that each question poses. The results of the first two studies that measured differences among black and white communities and determined if these fell under

predictable lines verified that there were different preferences among both the black and white groups.

White participants were more favorable to scenes with dense foliage, with weedy or overgrown areas, or with a sense that the trees and vegetation surround one. Blacks responded positively to many scenes showing numerous trees, but they preferred more widely spaced trees in a setting characterized by greater visibility and openness. (Kaplan & Talbot, 1988, p. 113).

Kaplan and Talbot (1988) state that the results of their study validate research done previously on ethnic groups that revealed nature preferences differed among black and white communities. It is important to note, however, that a difference in preference between black and white communities did not correlate to a lack of interest in nature within black communities as was addressed in the third question of the study. Kaplan and Talbot (1988) note that there was great difficulty in making the distinction that alternative preference to dense foliage correlated to lack of interest in nature or wilderness within black communities. Overall there appears to be a different approach and engagement with nature between black and white communities. Kaplan and Talbot cite the work of Dwyer et al. (1981) that blacks tend to go to nature settings to meet and gather with others as opposed to white individuals who see nature as a means to escape or get away from one's surroundings. To each ethnic community nature serves a different purpose, but one cannot conclude that lack of interest is present in either ethnic group based upon the above research.

Conclusion or Discussion

Though the impact of nature began as philosophical beliefs and observations the above research points to scientific evidence of the physical and mental health benefits of interaction with nature. Increasing understanding of the brain's evolutionary history points to human's early interaction and dependence upon interaction with nature and how absence from such interaction can cause issues such as stress. These developments help understand studies on the interaction with nature and how they can help decrease stress across multiple cultures and socio-economic groups. Therefore, based upon this information the counseling profession would greatly benefit from considering and applying nature based interventions with counseling settings as the benefits of such interventions are being supported by an increasing body of research and developments.

Author's Note

For as long as I can remember I have had an affinity for nature. As a youth I can recall driving up interstate 35 towards Duluth, MN excited not solely in the prospect of vacation that awaited but also for the scenes in Northern Minnesota that have the ability to impact one in a profound manner. Traveling further North out of the Minneapolis suburbs the landscape begins to change and dense forests of coniferous trees begin to speckle the landscape eventually leading to huge swaths of green and greys that place one in a state of wonder. The drive culminates when one comes over the top of the hill into Duluth and is confronted with the massive and powerful site of Lake Superior and the continued forest and trees that line its Minnesota and Wisconsin shorelines. This is a powerful image for me and is one of many where nature has had a lasting impression.

Yet despite these encounters with nature an all too common issue arose for me. I stumbled upon media and other entertainment that had as powerful an impact of the scene I described above, but was easier to obtain. Growing up I exchanged a lot of time outdoors for time in front of a screen and it is a struggle I experience to this day. Television and media is used as a tool for relaxation and unwinding when research actually reveals the adverse to be true. The time I spend in front of a screen not only does not relax me, but also results in my becoming more fatigued. In light of these findings, this concerns me not only on a personal level, but also as a father to three children. Digital entertainment will be as much a part of my children's lives, if not more so, than it is for me. My concerns are not a cry for slowing advancements in technology or a denouncement of the benefits of screens as I know and believe that much has been gained through technology; rather my concern has to do with the forfeiture of the interconnectedness that humans and nature have had for so long. I want my kids to watch TV

and embrace the messages and nuances of the characters they watch, but I also would like to see them develop that same appreciation or admiration for the fictional characters of a novel or have a similar fascination for an animal encountered while walking in the woods.

I suppose this desire has to do with balance; for myself, for my family, for those I work with and others in my community. That was the driving interest in completing this capstone project. As much as it was a requirement for completion of my education it was also an exploration of my values and how I apply them on a daily basis. I learned not only does my affinity for nature have evolutionary and restorative properties, but also that my experience is echoed by many in that nature truly does contain the ability to bring rest and restoration to participants. Learning this more made it easier to get outside. An hour here or 10 minutes there, the time did not seem to matter. It became easier to get my children outside knowing that their interacting with nature will impact them in healthy ways. It brought me great delight when the first snow came and upon playing in it for one day my son eagerly awaited the chance when he could get on his snow gear and traipse through the woods again.

It is those types of experiences that I see a greater purpose in being in nature because in some way it seems to make us more human. We become more aware of our dependencies, our shortcomings, our strengths, and we are ultimately better for it. So I eagerly await the next stroll through the woods or the trip into Duluth where peering into the seemingly limitless edge of the lake's water I am sure to experience growth and peace.

References

- Berger, R., McLeod, J. (2006) Incorporating nature into therapy: A framework for practice. *Journal of Systemic Therapies*. 25 (2), 80-94
- Cohen, M.J. (1993) Integrated ecology; The process of counseling with nature. *The Humanistic Psychologist*. 21, 277-295
- Groenewegen, P. P., Berg, A. E., Vries, S., Verheij, R. A. (2006) Vitamin g: Effects of green space on health, well-being, and social safety. *BMC Public Health*. 6 (149) retrieved from: <http://bmcpublichealth.biomedcentral.com/articles/10.1186/1471-2458-6-149>
- Health Council of the Netherlands and Dutch Advisory Council for Research on Spatial Planning, Nature, and the Environment (2004) Nature and health: The influence of nature on social, psychological, and physical well-being. *Health Council of the Netherlands and RMNO*. Retrieved from: https://www.gezondheidsraad.nl/sites/default/files/Nature_and_health.pdf
- Kanters, M. A., Bristol, D.G., Attarian, A. (2002) The effects of outdoor experiential training on perceptions of college stress. *The Journal of Experiential Education*. 25 (2), 257-367
- Kaplan, R., Talbot, F. T. (1988) Ethnicity and preference for natural settings: A review and recent findings. *Landscape and Urban Planning*. 15, 107-117
- Kaplan, S. (1992) The restorative environment: Nature and human experience. *The Role of Horticulture in Human Well-Being and Social Development*. Portland, OR: Timber Press
- Kaplan, S. (1995) The restorative benefits of nature: Toward and integrative framework. *Journal of Environmental Psychology*. 15, 169-182

- Kjellgren, A., Buhrkall, H. (2010) A comparison of the restorative effect of a natural environment with that of a simulated natural environment. *Journal of Environment Psychology*. 30, 464-472
- Lothian, A. L. (2010) Health and restorative benefits of reviewing landscapes. Retrieved from: <http://www.scenicsolutions.com.au/Attached%20PDFs/Restorative%20and%20health%20benefits.pdf>
- Lothian, A. L. (2014) Health and restorative benefits of reviewing landscapes. Retrieved from: <http://www.scenicsolutions.com.au/Attached%20PDFs/Restorative%20and%20health%20benefits.pdf>
- Maas, J., Verheij, R. A., Groenewegen, P. P., Vries, S. P., Spreeuwenberg, P. (2006) Green space, urbanity, and health: How strong is the relation?. *Journal of Epidemiological Community Health*. 60, 587-592. Retrieved from: <http://jech.bmj.com/content/60/7/587.full.pdf+html>
- Revell, S., Duncan, E., Cooper, M. (2014) Helpful aspects of outdoor therapy experiences: An online preliminary investigation. *Counselling and Psychotherapy Research*. 14 (4), 281-287
- Richardson, E.A., Mitchell, R., Hartig, T., Vries, S., Astell-Burt, T., Frumkin, H. (2012) Green cities and health: A question of scale? *Journal of Epidemiology and Community Health*, 66 (2), 160-165
- Russell, K. C., Hendee, J. C., Phillips-Miller, D. (1999) How wilderness therapy works: An examination of the wilderness therapy process to treat adolescents with behavioral problems and addictions. In: Cole, D. N.; McCool, S. F. 2000. Proceedings: Wilderness

- Science in a Time of Change. Proc. RMRS-P-000. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.
- Rutko, E. B., Gillespie, J. (2013) Where's the wilderness in wilderness therapy?. *Journal of Experiential Education*. 36 (3), 218-232
- Swank, J.S., Shin, S, M. (2015) Nature-based child-centered play therapy: An innovative counseling approach. *International Journal of Play Therapy*. 24 (3), 151-161
- Thompson, C. W., Roe, J., Aspinal, P., Mitchell, R., Clow, A., Miller, D. (2012) More green space is linked to less stress in deprived communities: Evidence from salivary cortisol patterns. *Landscape and Urban Planning*. 105, 221-229
- Ulrich, R. S. (1979) Visual landscapes and psychological well-being. *Landscape Research*. 4 (1), 17-23
- Ulrich, R.S. (1981) Natural versus urban scenes: Some psychophysiological effects. *Environment and Behavior*. 13 (5), 523-556
- Ulrich, R.S. (1983) Aesthetic and affective response to natural environment. *Human Behavior and Environment*. Vol. 6, 85-125