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How Immersion in Nature Impacts the Human Spirit: A Phenomenological Study

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How Immersion in Nature Impacts the Human Spirit: A Phenomenological Study

Becky Schauer, Kishori Koch, Laura Lemieux, Kendra Willey

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St. Catherine University

Abstract

Research demonstrates that spending time in nature restores, heals, and fosters connection in people. However, little is known regarding nature's impact on the human spirit. The purpose of this phenomenological, mixed-method study is to describe nature's impact on the human spirit. Twenty-six adults spent a minimum of fifteen minutes-a-day over a ten-day time period immersing themselves in nature and reflecting on a dimension of their spirit. Participants used photography and journaling to share reflections regarding how nature impacted their spirit. Six main spiritual themes emerged from thematic analysis: connection, vibrancy, awe/presence, joy, gratitude, and compassion. Of these six themes, the findings reveal that immersion in nature impacts the human spirit most significantly by providing a sense of connection, vibrancy, and awe. Furthermore, regardless of the type of nature activity, the location, or the time of day, immersion in nature offered a sense of connection for every participant, which in turn promoted spiritual well-being. Spending time in nature offers a cost-free and accessible way to foster spiritual well-being.



Gratitude

It is with deep gratitude that we acknowledge the strength, encouragement, and wisdom with which our professors, fellow graduate students, friends, and family held loving space for us to thrive during the research process. This body of work is the result of a collaboration between loving friends, family, supportive colleagues, instructors, the participants, the beauty of nature and ourselves. Nature was our inspiration; our circles of support were our pillars. We hope that the results of our work will inspire others to connect with the power and the beauty of nature for their own happiness and well-being.

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Introduction

It is not so much for its beauty that the forest makes a claim upon men's hearts, as for that subtle something, that quality of air, that emanation from old trees, that so wonderfully changes and renews a weary spirit. - Robert Louis Stevenson (n.d.)

There is something compelling about the natural world that draws humans to it. Whether this magnetism comes from nature's beauty, its restorative properties, or the pure air from old trees which we inhale when walking in a forest, something within nature makes us healthier when we are in it (Lee et al., 2011; Zhang, Howell & Iyer, 2014). Nature's impact on human beings has been the topic of numerous research studies. In recent years, scholars have realized that nature has a profound effect on human life and that without it human beings suffer (Burger, 2011; Kellert & Wilson, 2011; Louv, 2011; Northcutt & Kennard, 2013; Portman & Garrett, 2006; Struthers, Eschiti, & Patchell, 2004; Wendt & Gone; 2012; Wilson, 1984; Wilson; 2003). The literature reveals ample studies demonstrating the cognitive, psychological and physical impact of spending time in nature on human beings, most of which is beneficial (Berger & Tiry, 2012; Berman et al., 2012; Chalfont, 2007; Farmer, 2014; Kamitsis & Francis, 2013; Keegan & Gilbert, 2013; Lee et al., 2011; Lee et al., 2014; Michaud, 2003; Milligan, Gatrell, & Bingley, 2004; Park et al., 2007; Richter, 2011; Serbulea & Payyappallimana, 2012; Sternberg, 2010; Van der Riet, Jitsacorn, Junlapeeya, Dedkhard, & Thursdby 2014; Winterbottom; 2005). We also see a juxtaposition present in the literature. It reveals the historical context dichotomy of the different lenses of various people groups and how they view and experience nature (Achterberg, 1991; Anthony, 2007; Industrial Revolution, 2009; Laplante, 2009; Lawhead 1996; McDonald et al., 2009; Rennie, 2008; Portman & Garrett, 2006; Struthers et al., 2004; Wilson, 2003; Zhang et al., 2014).

However, research on nature's impact on the human spirit is lacking. Spirit, which comes from the Latin *spiritus*, can be described as the essence, breath, or soul of a person (Young & Koopson, 2011). Young & Koopson (2011) state that every fabric of a person's life is infused with spirituality. It is the essence of what it means to be human. Nature impacts human beings cognitively, psychologically, and physically, which raises the question whether or not nature also impacts the human spirit. Therefore, the purpose of this study is to describe nature's impact on the human spirit.

In order to describe this study in detail, we begin with a review of the literature. We then discuss our research lenses and explain how they impacted the development, implementation, and interpretation of this research project. Next, we describe our research method. We then relay the results of our study. Finally, we describe and interpret those findings in the discussion chapter.

Literature Review

The purpose of this chapter is to discuss the literature related to the psychological, physical, emotional, and spiritual impact that nature has on human beings. We begin by tracing the history of Western society's relationship to nature and the changes that have occurred in this relationship over time. Next, we examine varying North American paradigms related to connectedness with nature. We then review literature on the therapeutic benefits of nature. Finally, we describe what little is known about how time spent in natural environments affects aspects of spirituality, including a discussion about biophilia: the idea that humans have an innate connection with nature.

History of Western Society's Relationship to Nature

In order to understand the correlation that exists between humans and nature we first explore historical perspectives concerning nature and one's connection to it. We begin by reviewing the evolution of humankind's relationship to nature. We then look at how this relationship changed over time through the influence of Cartesian thought which separates the mind and body into two unique entities (Achterberg, 1991; Lawhead, 1996). Finally, we examine influential individuals, like Henry David Thoreau and John Muir, who acknowledged humanity's spiritual connection to nature and sought to preserve a relationship with it (Anthony, 2007; McDonald, Wearing & Ponting, 2009; Zhang et al., 2014).

Human relationship with nature. In discussing humanity's connection to nature, several authors note the important changes that have occurred in Western society's perception of nature (McDonald et al., 2009; Rennie, 2008). The concept of nature as separate from humans is a relatively new phenomenon; the relationship between humans and nature was one of union prior to the eighteenth and nineteenth centuries (McDonald et al., 2009; Rennie, 2008). Individuals symbiotically relied on nature and the land for their subsistence in life. Slowly, as more people came to America seeking freedom and as those immigrants used the land for farming, nature became viewed as a commodity which was valued for what it produced rather than for its sacredness, beauty, or relatedness to self (Lijmbach, Margadant-Van Arcken, Van Koppen, & Wals, 2002; Rennie, 2008). In the 17th century, Descartes influenced Western American thought through his philosophical beliefs on the separation between mind, body, and nature (Lawhead, 1996).

Cartesian thought. Descartes altered a long-standing belief system regarding the mind, body, and nature connection. Based on his belief that the mind and body were two distinct entities, Descartes changed the way the West saw the world (Lawhead, 1996). Analytical (scientific) reasoning became the standard. Furthermore, emphasis on breaking “something down into its smallest parts” (Achterberg, 1991, p.100) became the paradigm, and the separation of the mind and body became the mode of thinking for many. Individuals discovered the world and oneself through scientific reasoning, believing it was the way to truth and absolute certainty (Achterberg, 1991). These changes within the Western belief system had deep effects on the structure and function of society, as well as one’s connection to nature. As the Industrial Revolution progressed and science became the way of knowing, the Western world’s belief system became a platform that fostered separation from one another, from the self, and from nature.

During this time, Westerners viewed nature as a resource and land was a commodity which could and should be dominated (Laplante, 2009; Rennie, 2008; Struthers et al., 2004; Wilson 2003;). Rural areas became urbanized and industry grew. The concept of social class further divided individuals from one another (Industrial Revolution, 2009). Industry advanced, living spaces became increasingly crowded and the poor suffered. Humans relied on machines rather than nature, eventually viewing planet earth as a machine and acting destructively against it (Achterberg, 1991; Industrial Revolution, 2009). Lijmbach, Margadant-Van Arcken, Van Koppen, and Wals (2002), and Zhang, Howell and Iyer (2014) note that some artists and poets of the day, repulsed by this disconnect from the natural world, saw value in seeking a haven in the beauty of landscape as opposed to living in “the grime and inequality of urban environments”

(McDonald et al., 2009, p. 372). During this time these same individuals valued nature for its simplicity and wholesomeness which went against the chaos of the industrialized world (McDonald et al., 2009).

Henry David Thoreau. One notable figure during the Industrial Revolution was Henry David Thoreau. Thoreau spearheaded a conviction that humans needed nature and were spiritually fed by it (McDonald et al. 2009; Zhang et al., 2014). Thoreau saw the sacred in nature as he walked through the woods. He had an affinity for the environment, leading him to build a cabin and undergo a two-year experiment to live a simple life within nature; this is documented in Thoreau's famous book *Walden* (Thoreau, 1856/2000). Thoreau believed that letting go of material things and yielding to the simplicity of nature alone led to inner wisdom, as well as greater richness and satisfaction in life (Thoreau, 1856/2000). Thoreau found happiness and completeness in the solitude of nature.

John Muir. Like Thoreau, John Muir, a writer and environmental philosopher living in the 1800's, also had a deep connection to the environment. His influential writings impacted the Western world not only during his life but also in present day. Muir's deep affection for nature was rooted in his spiritual faith: "Muir spoke of a distinct correlation between humanity's spiritual ills and the destruction of the natural world, and suggested an extension of the Christian ethic to all creatures" (Anthony, 2007, p. 74). He believed that civilization robbed individuals of the life and truth which were found in the natural world (Anthony, 2007). Muir's sense of the sacred in nature is evidenced in his writings on ecology and the natural environment. He wrote, "Everybody needs beauty as well as bread, places to play in and pray in, where nature may heal and give strength to body and soul alike" (Muir, 1912, p. 256).

Some individuals in present day Western society embrace a similar passion for nature as Muir and Thoreau did, while many others function from an individualistic mindset where much of life is structured around the Cartesian dualistic framework (Achterberg, 1991; Industrial Revolution, 2009). These individualistic beliefs have perpetuated the position of disconnection from nature and from one another. This position is contrary to teachings from a North American Indigenous belief system with its roots in the interconnectedness of "mind, body, spirit, and the natural world" (Portman & Garrett, 2006). In the next section, we discuss teachings from North American Indigenous perspectives and teachings from contemporary Western American perspectives and discuss the implications.

Teachings from North American Indigenous perspectives. Many North American Indigenous tribes view nature as sacred; it is woven into their traditions and beliefs. In fact, many traditional beliefs recognize that all of life has intrinsic value and significance (Wilson, 2003).

Wilson's (2003) research, exploring the deeply grounded connection between the Anishinabek Tribe and the land, found that individuals' relationship to nature was more than the mere notion of connection. It involved a sacred understanding and union with nature imbuing meaning into all aspects of life. Wilson's findings revealed that this relationship and interconnectedness with the landscape brought about a sense of meaning and sacred identity for the Anishinabek Tribe.

Moreover, many traditional practices speak about this interconnection between our environment, the self, and the spirit world and how that interdependence impacts spirituality and identity (Burger, 2011; Laplante, 2009; Struthers et al., 2004; Wilson, 2003). Wilson (2003) further explored the meaning of place for the Anishinabek Tribe as it related to their sense of self. Wilson found that the land significantly impacted the Anishinabek people's identity as told in stories about Mother Earth. Other authors found that individuals' identities were cultivated with their Creator by the land through the use of herbs and medicines (Burger, 2011; Struthers et al., 2004; Wilson, 2003). Some North American Indigenous individuals believe that everything "was created from a divine source of spiritual energy and power" (Laplante, 2009, p.6). Tobias and Richmond (2013) relay how North American Indigenous groups viewed themselves and their role in caring for the earth. They believed they were only a tiny piece of the bigger, natural world; the Creator placed value on all of life, giving each life meaning and intrinsic sacredness (Charnley, Fischer, & Jones, 2007; Pickering & Jewell, 2008; Portman & Garrett, 2006; Tobias & Richmond, 2014; Wilson, 2003). Portman and Garrett (2006) examined Native American healing traditions; they found four constructs that Native Americans believed to affect their health, well-being, and identity. These were, "spirituality (Creator, Mother Earth, Great Father); community (family, clan, tribe/nation); environment (daily life, nature, balance); and self (inner

passions and peace, thoughts, and values)” (Portman & Garrett, 2006, p.455). They believe that maintaining harmony and balance with oneself, one’s tribe, the earth, and the spiritual realm is key to having health (Wilson, 2003). This sense of deep respect and connectedness to all of nature was pivotal in giving many Indigenous North Americans a sense of place and meaning in their understanding of the spiritual self and others. The aforementioned literature demonstrates the link between the earth and one’s overall health, identity, and spiritual well-being.

Teachings from a contemporary Western American perspective. The teachings from the Western American perspective differ from the teachings from the North American Indigenous perspective. In contemporary, Western American culture, there is a tendency for humans to be highly individualistic and to view the self as separate from the natural world removing self from a kinship-with-nature to a domination-over-nature (Berry, 2000).

Several authors suggest that the destruction and sickness of others and the environment in which one lives does not directly affect the individual (Silko, 1977; Veenhoven, 1999). Moreover, it is easier to be unaware of how one treats and impacts the environment and others if one believes that they are separate from the environment and one another (Silko, 1977; Zomeren, 2014). Some within the Western world are recognizing the harmful impacts we are having on one another, our environment, and ourselves. According to Berry, an environmental activist and novelist, the health of the individual cannot be separated from the health of the whole. In the book *Another Turn of the Crank*, Berry (1995) says, a community is “in the fullest sense: a place and all its creatures, is the smallest unit of health and that to speak of the health of an isolated individual is a contradiction in terms” (p.79). In addition to Berry, other individuals, dissatisfied with a disconnect from the earth, are seeking out a reconnection with it.

Therapeutic Benefits of Nature

Humans have come to realize that being in nature is an essential need and that not feeding this need impacts one's life (Louv, 2008). In this next section, we explore the various ways in which humans retreat to nature for healing of their mind, body, and spirit and why they do it. The primary topics we discuss are nature as restorative, nature as healing, and finally, nature builds connection.

Nature as restorative. In recent years, scholars have recognized that there is something about nature that restores the inner self, and increases energy or vitality in individuals. Kaplan (2008) refers to this as the Attention Restoration Theory (ART). There are a multitude of studies which examine ART as it relates to medical outcomes and intellectual tasks (Berman, Jonides, & Kaplan, 2008; De Young, 2010; White, Pahl, Ashbullby, Herbert, & Depledge, 2013). The notion behind this theory is that in modern society, humans direct much of their attention toward the many necessities required to function effectively in life. These acts of attentiveness and/or controlling cognitively processes (i.e. work, parenting, driving etc.) require a tremendous amount of directed thought and energy which, typically can strain the individual and cause increased stress. But when the same individual is immersed in nature, *fascination attention* emerges. This form of attention is effortless and renewing as a result of beauty, captivation, or intrigue, which elicits pleasant sensations within the body and requires no controlled mental energy (De Bloom, Kinnunen, & Korpela, 2014; De Young, 2010; White et al., 2013).

Richter (2011) defines the restorative practice of forest immersion as a way of being present or immersed in a forest setting. Two types of forest immersion originate in Japan: onsen bathing and forest bathing. The Japanese tradition of taking onsen (hot spring baths) is ancient

(Serbulea & Payyappallimana, 2012). The onsen waters contain healing minerals, offering a direct medicinal effect on the body. Forest bathing is the simple act of being in the woods and feeding the senses with visuals, aromas, and sounds (Richter, 2011). Forest bathing brings one into direct immersion and “immersion in the forest awakens our senses to the natural world around us” (Keegan & Gilbert, 2013, p.11). Several studies display the positive psychological and physiological effects of immersing oneself in the forest. Three such studies compare being in the forest with being in urban settings (Lee et al., 2011; Lee et al., 2014; Park et al., 2007). The researchers found that positive mood states increased, leading to lowered pulse rates and decreased feelings of hostility, fear, and depression while walking or sitting in the forest (Lee et al., 2011; Lee et al., 2014). Park et al. (2007) also found that individuals who were anticipating spending the day in an urban setting had higher salivary cortisol levels than those who knew they were going to be spending their day in the forest (salivary cortisol levels were taken before immersion into either forest or urban setting). However, the cortisol hormone (which is secreted in higher levels during stress) was decreased in the individuals who were walking in the forest (Lee et al., 2011; Lee et al., 2014; Park et al., 2007; Richter 2011).

Berman et al. (2012) found that individuals with the diagnosis of clinical depression reported an elevation in mood or memory after walking in nature versus walking in urban settings. The researchers instructed participants to think about something sad prior to walking; when walking in urban settings noises were disruptive and disturbing, but when walking in nature noises and distractions were unconsciously welcomed by the participants and were found to elicit a sense of awe or beauty. Based upon these findings, one can deduce that nature has a pleasing and calming quality that directly impacts human beings in a healthful way.

Nature as healing. Nature therapy is a growing field around the world and many are accessing it to enhance their health (Crowley, 2013; Farmer, 2014; Kraft, 2010; Lee et al., 2011; Lee et al., 2014; Park et al., 2007; Serbulea & Payyappallimana, 2012; Van der Riet et al., 2014; Winterbottom, 2005). Healing gardens are one type of nature therapy that is growing in the Western world (Van der Riet et al., 2014; Winterbottom, 2005). Winterbottom (2005) reports that a healing play garden at the Incarnation Children's Center in New York helped sustain the well-being of children living with AIDS. The garden offered a space for children to play and was an oasis for family and visitors to share experiences. It also helped to build a sense of community for the residents and for the visitors. A similar garden, called Fairy Garden was built in a hospital in Thailand, where they found that connection to nature feeds resilience (Van der Riet et al., 2014). Van der Riet, Jitsacorn, Junlapeeya, Dedkhard, and Thursdby (2014) go on to report that the children seemed happier, calmer, and more relaxed in the healing haven of the Fairy Garden where they could learn, play, and socialize.

Healing gardens provide a sense of safety, well-being, and show us that life prevails even in the form of a plant or flower (Michaud, 2003). Michaud goes on to report that as humans we sometimes feel like we cannot move forward, or that we cannot change or evolve. But by connecting with the natural world which is ever changing, growing, and evolving, maybe we too can change, grow, and reach our fullest potential. Therefore, Michaud suggests that growing a therapy or healing garden can help us heal from grief, illness, and can cause us to take a moment to slow down, and breathe (Michaud, 2003).

Nature builds connection. An organization in England called Ecominds practices another form of nature as therapy. They create healing spaces through gardens and community

gardening. Ecominds state that “being active in nature will be benefiting to your physical and mental well-being” (Farmer, 2014, p. 18) and through their work they have found that outdoor therapies which center around community gardens help alleviate mild depression and anxiety. Farmer (2014) observed that working together as a community can also build trust and a sense of belonging.

Chalfont (2007) found elderly dementia care residents had higher levels of cognitive function when in a natural setting or had a view of a natural setting, as opposed to viewing an urban setting or being in a room without natural elements such as plants. Residents were better able to articulate speech and thought patterns when looking out onto nature and had a greater struggle in communication when looking out onto a busy, urban area (Chalfont, 2007). Milligan, Gattrell, and Bingley (2004) similarly found increased sociability among elderly residents who worked together on garden projects rather than individually. As these studies suggest nature enhances connection and supports human restoration and healing. Next, we examine aspects of spirituality and how spirit may be involved in this transformation.

Aspects of Spirituality

According to some findings in the literature, being in nature feeds the human spirit. (Berger & Tiry, 2012; McDonald et al., 2009; O’Donohue, 2004; Zhang et al., 2014; Zhang et al., 2013). In the following section, we define spirituality and discuss the idea of spirituality as mediating the relationship between nature and health (Kamitsis & Francis, 2013). We then explore how time in nature can draw out one’s imagination and creativity, sense of altruism, sense of awe and sense of beauty which are all facets of spirituality that bring forth a greater sense of self (Benjamin & Looby, 1998; Berger & Tiry, 2012; McDonald et al., 2009;

O'Donohue, 2004; Zhang et al., 2014; Zhang, Piff, Iyer, Koleva & Keltner, 2013). Finally, we discuss the concept of biophilia which examines the deep connection that humans have with nature.

Spirituality defined. Spirituality can be defined in many ways. We use Young and Koopsen's (2011), and Bregman's (2014) definitions of spirituality for our framework for understanding the human spirit and spirituality. Young and Koopsen (2011) refer to spirituality as the breath or essence that infuses all of life with meaning; it "is expressed and experienced through an interconnectedness with nature, the Earth, the environment, the cosmos, and other people" (p. 114). Bregman (2014) states that spirituality involves a "yearning for wholeness, it is the depth and truth and all-inclusive wholeness of life, our lost and lamented connection to the universe" (p. 1-2). Connectedness is an essential component of spirituality. We can experience connection and relatedness intrapersonally (connection to oneself), interpersonally (connection to others and the natural environment) and transpersonally (sense of connection to the unseen, God, or something larger than the self) (Meezenbroek et al., 2011). There are many implicit and explicit elements and expressions of spirit that one is often eluded by. Therefore, by defining spirituality broadly we leave room for stories to emerge from personal experience and interpretation. These definitions guide our understanding of spirit as we seek to comprehend how immersion in the natural world affects these aspects of the truest self.

Spirit as mediator. In 2013, Kamitsis and Francis hypothesized that one's spirituality could be the mediator between nature and the role it plays in psychological health and wellness. Their findings suggest that one's level of spirituality is the key determinant to one's depth of connection to nature: the higher the connection to nature, the greater the psychological health.

(Kamitsis & Francis, 2013). This hypothesis affirms the notion that one's spirituality may be the catalyst driving a sense of well-being while immersed in nature. The stories of John Muir and Henry David Thoreau are examples of this, both of whose connections with nature deeply impacted their own spirituality (Anthony, 2007; Thoreau, 1856/2000). This further suggests that spirituality affects connection to nature and, conversely, that connection to nature has the potential to feed a person's spirit.

Imagination and creativity. Spirituality manifests itself through creativity and imagination (Berger & Tiry, 2012). The inner life of a person can open up and be heard or expressed when afforded the opportunity for a quiet retreat into the beauty of nature. Berger and Tiry (2012) explored the spiritual benefits of nature using imagination, play, and connection for individuals with mental illness. Facilitators took participants into various nature settings and invited them to participate in group ritual. Participants lay on the grass in the forest while experiencing guided imagery. They also drew in the sand and engaged in spontaneous drama while on the beach. Individuals were able to creatively express their feelings concerning self and connectedness to others as a result of the freedom they felt in nature (Berger & Tiry, 2012).

Sense of altruism. In 2013, Zhang et al. published a study on how images of beautiful scenery impacted altruistic behaviors. The authors hypothesized that individuals who viewed more aesthetically pleasing images of nature would have kinder actions towards others, such as decreased selfishness, greater generosity, and increased empathy. The results confirmed the hypothesis that after viewing beautiful images participants *were* more generous, helpful, and positive (Zhang et al. 2013). This study suggests that the perception of beauty in a landscape impacts the spirit of a person positively leading to altruistic characteristics. However, the

findings also imply that nature's effects are relative, further suggesting that a person's actions are dependent on their perception of the quality of beauty in a particular setting. This leads one to question whether a sense of amazement or awe associated with beautiful images correlated with spiritual wellness and an ability to see and value connections and beauty in all of life (Zhang et al., 2013).

Sense of awe. Withdrawing for a time into the beauty of nature can have a transformative role in one's life. McDonald, Wearing, and Pointing (2009) sought to explore the spiritual effect of extreme, heightened emotional experiences in nature and what caused them. The authors found common themes of awe or sacredness leading to inner restoration when immersed in beautiful landscapes. Participants also expressed feelings of connectedness with nature by having a greater sense of their place in the broader scheme of the world. Individuals discovered that being in nature enabled them to view life more clearly by getting away from the busyness of life (McDonald et al., 2009). This suggests that retreating into nature additionally enables one to think clearer and allows for greater introspection into the spiritual self.

Sense of beauty. Unique aspects of a person's spirit are drawn out by being in aesthetically pleasing settings. Zhang et al. (2014) hypothesized that a greater sense of love and beauty for nature would lead to a greater sense of wellness and internal health. The results revealed that when individuals had a higher belief in the beauty of nature, they also had increased self-esteem and a stronger sense of personal identity (Zhang et al., 2014). The researchers suggested that a love for nature could lead to a greater environmental passion. However, O'Donohue (2004) has another take on the human attraction to the beauty of nature; stating: "the beauty of the earth is the first beauty....we were once enwombed in the earth and

the silence of the body remembers that dark inner longing...we carry the memory of the earth” (p. 32 & 33). This intriguing concept suggests more than a connection; it suggests an intimate union with the earth.

Biophilia. Many individuals, similar to Muir and Thoreau, find that retreating to nature supports them in coping and healing from distress when they are stressed, feeling overwhelmed, or weary (Berger & Tiry, 2012; Lee et al., 2011; Lee et al., 2014; McDonald et al., 2009; Park et al., 2007; Richter 2011). They find that the natural environment has inherent properties that assist them in feeling better, helping them think, and having healthier means of coping. One concept found in the literature is the idea that humans are innately connected to nature (Shubin, 2013; Sternberg 2010).

The biophilia hypothesis states that “humans possess an innate tendency to seek connections with nature and other forms of life” (Rogers, 2016). Wilson (1984) defines biophilia as “the innate tendency to focus on life and lifelike processes,” addressing that “to the degree that we come to understand other organisms, we will place greater value on them, and on ourselves” (p. 1-2). This hypothesis claims that humans are inherently drawn to nature since we are a part of it (Kellert & Wilson, 1993; Wilson, 1984). The biophilia hypothesis affirms what Young and Koopsen (2011) have found, that “being in natural environments and viewing or experiencing nature can foster reconnection with the self physically, emotionally, and spiritually” (p.78). This reconnection is what many seek when retreating to nature, finding balance of mind, body, and spirit in their lives.

According to the biophilia hypothesis, humans are an integral part of the universe and our connection to the natural world is in our DNA, “the body of the universe gave birth to our

bodies” so we are intimately intertwined (Northcutt et al., 2013). Schultz, Shriver, Tabanico, and Khazian (2004) researched the idea of innateness with nature. They sought to discover if a sense of connectedness to nature was implicit or not, and if this implicit connection correlated with social actions which sustained nature. The authors revealed that when individuals viewed themselves as more connected with nature they were more apt to be environmentally conscious and active. The findings also revealed a natural tendency for participants to prefer nature over human-constructed environments, thus supporting the biophilia hypothesis (Schultz, Shriver, Tabanico, & Khazian, 2004). Some argue against the idea of nature being innate. Loder (2014) supports the theory that one’s relationship to nature is constructed by various social norms and understandings. Proponents of Loder share this sentiment, stating that while some individuals may find nature as beautiful, others have found it frightening, thereby concluding that one’s perception is dependent upon personal experience as well as cultural and social constructs. If our experiences in nature are positive then we may be more likely to have a joyful connection to nature. If instead, we have negative experiences in nature then we may have fear-based memories of those experiences. There is both great beauty and unmitigated strength in nature.

Summary

In summary, the topic of nature and well-being is vast and complexly layered. Since the 1700s, a majority of Western culture has increasingly detached itself from nature, using nature for its resources instead of connecting to it for well-being (Achterberg, 1991; McDonald et al., 2009; Rennie, 2008). On the other hand, the cultural traditions and teachings of multiple North American Indigenous tribes have maintained a deep spiritual connection to nature as an integral part of their healing rituals and medicine (Burger, 2011; Charnley, Fischer, & Jones, 2007;

Pickering & Jewell, 2008; Portman & Garrett, 2006; Tobias & Richmond, 2014; Wilson, 2003).

For many North American Indigenous people, nature is intimately woven into a balanced and healthy human life and leads to a greater sense of identity for them. Additionally, a detachment from nature appears to be negatively impacting humankind (Lee et al., 2011; Lee et al., 2014; Park et al., 2007). Conversely, immersing oneself in nature is restorative and has profound physical and emotional benefits (Berman et al., 2008; De Bloom et al., 2014; De Young, 2010; White et al., 2013). There is scientific evidence that supports the innate connection humans have with nature as expressed in the biophilia hypothesis (Northcutt et al., 2013; Schultz et al., 2004; Shubin, 2013; Sternberg 2010). Connecting to nature improves the well-being of humans and that of planet earth by increasing a sense of altruism and an awareness of how our actions affect the whole (Zhang et al. 2013). In addition, the literature shows that humans have a natural tendency to retreat to nature for respite, for community building, and overall health (Berger & Tiry, 2012; Lee et al., 2011; Lee et al., 2014; McDonald et al., 2009; Park et al., 2007; Richter 2011). However, the literature reveals a gap in studies that describe how a person's human spirit is impacted by nature, why humans instinctively retreat to it, and how time spent in nature connects us not only to the earth but to our inner being. This review of the research and literature leads us to ask the question: how does immersion in nature impact the human spirit?

Research Lenses

The purpose of this chapter is to articulate the relevant research lenses that have influenced the development and implementation of this review. First, we elaborate on how our research paradigm and culture of inquiry frames this research project. We then elaborate on theoretical lenses related to our project. Finally, we describe our professional and personal lenses and how they have influenced and impacted our research.

Research Paradigm and Culture of Inquiry

We acknowledge that our paradigms influenced the entire research process. Grounded in post-positivism, we also ventured into the realms of constructivist and critical paradigms in our design and in our interpretation of the data.

Post-positivist thought shaped much of the form and structure our study. We recognize that we hold biases within this paradigm based on our life experiences, the culture and community in which we have been raised, and our overall perspective and worldview based on this. We have attempted to account for these biases by way of transparency, triangulation, and reflexivity throughout the entire research process, from reviewing the literature to discussing and interpreting the data, all the while knowing that we cannot achieve objectivity. We attempted to get a clearer picture of the “reality” of the matter of nature’s impact on the human person by accessing many sources, perspectives, and stories. Specifically, during the data analysis phase, we triangulated the data in an attempt to remove our biases and any error that could occur from only analyzing from one vantage point.

Our post-positivist perspective was most apparent in the structure of our design. We believe that true objectivity is not possible, and therefore, we offered multiple ways for the

participants to express themselves in the study, valuing their unique experiences, beliefs, and perspectives. The constructivist paradigm emerges here as well because our study was formed from the belief that we each have a unique worldview based on our perceptions of it, and that we co-create our realities as we weave those unique views together into a collective reality. We desired to hear the reality of others experiences as they pertained to nature and the human spirit. The structure of our study allowed for openness in the interpretation and expression of the experiences of the participants. In analyzing the data, this flexibility gave us more possibilities to see and discover different interpretations of the same major themes that emerged.

We designed our study from a belief rooted in the post-positivist paradigm. Our experiences and extensive review of the literature affirm and validate our belief that immersion in nature can be healing for all human persons. Participants reported either a renewed connection or awareness around the positive impact that immersion in nature had on their sense of well-being. Many individuals were empowered by their ability to facilitate their own self-discovery/transformation using the healing tool of nature. A few even expressed the desire to continue this daily ritual and many participants thanked us for inviting them to participate in this study. This mode of empowerment rests in the critical ideological paradigm of thinking.

The critical ideological paradigm emerges within the structure of our research in many ways. The literature review and study was formed from a belief that nature is vitally important, not just for its resources but for its very essence, outside of the health implications for humans. Nature ought to be valued and protected. Along with this, all people, regardless of age, gender, race, socioeconomic status, physical, mental, or emotional abilities, ought to have access to natural areas.

The phenomenological culture of inquiry examines the lived experiences around a certain phenomenon (Braud & Anderson, 1998; Charles & Toadvine, 2003; Creswell, 2007; Edmonds & Kennedy, 2013; Heidegger, 1962; Patton, 2002; Vakoch & Castrillon, 2014). In the case of our study, the phenomenon was the impact of spending time in nature on the human spirit. This culture of inquiry allowed us to observe differently lived experiences in-depth and to extract the common threads and meanings surrounding the stories connected to those experiences.

Additionally, this culture allows a person to be present in the immediate experience and reflect from the first person point of view. We offered participants the opportunity to capture the essence of their spiritual experience through stories and creative expression.

Theoretical Lenses

Three theoretical frameworks provide the necessary conceptual grounding for this study. They are the holistic health lens, the eco-psychological lens, and the integral spirituality lens. We will summarize each of these and make specific connections to this particular research project.

Holistic health. Holistic health recognizes the uniqueness and specific needs of each individual and places emphasis on the unity of mind, body, and spirit. Recognizing that health and/or ill-health is manifested through a complex web of interdependent systems interacting, including the physical, mental, emotional, spiritual, environmental, and social facets of each of us (Williams, 1998). The holistic lens is the primary lens of our research in that it is what unites us as researchers and also serves as the container for our additional lenses. There are other layers of theoretical lenses in our work, but the threshold is holistic health. The holistic lens reveals that “the entire universe and everything in it, including one’s perceptions of it through the human brain, affect human physiology and medical outcomes” (Micozzi, 2006, p. 165). From this

perspective, all of life is interconnected and therefore everything we think, say, or do has an effect on ourselves and others. We were impacted by the holistic lens in the following way: we affirm and acknowledge that each one of us is unique and has an interconnected mind, body, spirit existence. We value holism and feel that if we are to adequately assess nature's impact on a person, then the *whole* of a person needs to be addressed. Assessing the spirit has been virtually absent in nature research and therefore we sought to fill this gap. We used the holistic lens as we planned, processed, collaborated and analyzed our research. Everything we think, say, or do influenced our research process.

Ecopsychology. The holistic health lens ties in perfectly with the eco-psychological lens which also values the interconnectedness of all of life. When broken down, ecopsychology encompasses two parts: *eco* or the natural environment comprising all types of diverse organisms and their relatedness to one another, and *psychology* which is the study of human behavior (Conn, 1998). Together it means the connectedness of all of life and how this relationship affects the inner self; “the practice of ecopsychology is based on the recognition that the needs of the earth and the needs of the human individual are interdependent and interconnected...” (Conn, 1998, p. 531). This theoretical lens ideally guides this study by acknowledging this interconnectedness with all of life, and that the needs of the earth and humanity are not mutually exclusive; “human health and sanity must include sustainable and mutually enhancing relations with the natural world” (Conn, 1998, p. 531). A sense of interconnection and connection is an important facet of spiritual wellness (Seaward, 2015), and a sense of connection is an essential element for balance and well-being for all of human life (Schultz et al., 2004). The eco-

psychological lens formed this study by guiding the theory of an interconnectedness with nature that feeds the whole self.

Integral Spirituality. The third and final theoretical lens comes from Wilber's Integral Spirituality theory (2006). Integral spirituality "is based on universal human capacities to interface with the Divine, and includes all aspects of spirituality" (Young & Koopsen, 2011, p. 21). This theoretical lens aligns itself with this study by affirming the beliefs of the researchers that all individuals are spiritual beings and that we are all connected; our knowledge contributes to the whole. Spirituality is not limited to one particular religion but is broader and encompasses all types of faiths. As the theory states, it is an all inclusive theory valuing each individual's unique spirituality, or piece of the pie, contributing to the completeness of the whole (Conn, 2008). We, as researchers, each have a strong connection to and belief in spirit. We value the diversity of the participants and their varying spiritual experiences, acknowledging that each story of spirit has merit. Therefore this theory grounded us and supported us as we strove to understand the impact of nature on all participants' spirits.

Professional and Personal Lenses

Our research team brings a variety of professional and personal experiences to this project. We briefly describe our experiences, how they have influenced our work thus far and how we anticipate using them throughout the research process. Just as our professional experiences have given us lenses that are relevant in terms of our credibility as researchers in this study on nature and healing, each of us also has relevant personal experiences that contribute to how we *see* this topic, how we engaged with it as researchers, and how we will use ourselves in

the research process. Therefore, we note relevant personal experiences and lenses along with our plans for reflexively monitoring these lenses and their impact as we go forward in this project.

Becky Schauer. I am from worried hearts and evocations carried into the soft distant breeze, of a grandfather's dream of health and a spirited baby girl bouncing on a colorfully patched old quilt, of generations of those tending the spirit and the soil, nurturing and turning the hopeful black earth, of prayers for dying cows, peanut crops, and wayward hearts. I am from southern dreamers "Sooners" who staked their land, from tanned skin and Cherokee blood, from a woman smelling of L'air du temps whose winsome melodies rang far into the night and whose smile extended the borders of the earth, of strong youthful arms enfolding her own and those just out of reach, of innocent trust and unwavering belief, of merciful ways blanketing offence.

I am from Nordic shores, and stone like expressions broken only by the volcanic laughter of tiny ones playfully pestering, of loyalty deeper than the salty ocean floor and a sensitive man with veiny carpenter's hands hearing divinity's call, of a never idle puritanical work ethic, finding salvation through physical labor, dedication, and forgiveness, of a penitential heart hearing the holy where the blue jays and fattened chickadees play, squirrel dreys are built, and the enticing scent of pine sap fills the lungs, where spirit can be heard often and only in the necessity of quiet.

I am from certainty and doubt, simplicity, and complexity, from the mysterious sacred, becoming known through physical exhaustion, hiking boots and snowcapped mountain ranges where eagles soar above meadows illuminated with glinted bear grass and scarlet Indian paintbrush, from a wanderer's glistening heart scouring land for adventure and beauty yet held back by stronger stirrings, children's dancing voices and a kind man's embrace, from flitting feet

planted, desiring to bandage the sick and hold the stricken heart, of woundedness kissed, and dreams unveiled in the morning light.

All of this is *part* of me, guiding, moving and influencing my actions. I have blindly received nature's healing and now I seek it out for nourishment. The curious hope of a divine presence beckons my spirit onward as it did my ancestors, pulsing purpose into my veins, steering me, steering this inquiry and topic of nature and spirit. Open to mystery, I am from perceptions of truth and an assured awareness of my inner being guiding this misty path, quietly painting the arcane voice of soul onto an open literary canvas, unveiling naked thoughts - both hesitant and confident - while sculpting letters into form and meaning, shaping the lifeless pages into the fabric of story, believing that meaning can be extracted from questions, searching, logic, and interpretation, and formed into shared knowledge. I am a self-starter, a task completer, and a rule follower. Influenced by post-positivism, I desire precision in the tiniest speck believing that truth exists and can be found, while equally embracing a sense of wonder and perhaps resistance to certainty, open to unbridled thought, allowing the work to have its own evolution and voice. I am also from critical ideology, desiring to give voice to all, acknowledging that all stories have worth, meaning, and validity. I am from gentle intuition and a strong desire for relational tranquility, valuing kindness, clarity, and warmth, bringing these silent comrades with me in my group's ponderings, desiring for the contribution of all, partaking in that which nourishes and uplifts the spirit. And finally... I am from an earnest awareness that the macrocosmic gift of nature is for all, as we are all, both separate and a part of.

Kishori Koch. I am a constructivist living in a post-positivist world. The objectivity of the post-positivist landscape is a rhythm I can flow with when needed, however my subjective

vision reminds me that pure objectivity is not truly possible. All research is relative and cannot be absolute. All experiences and every story hold the point of view of the person recounting the tale. Which leads me to always question the truth and validity of any type of research data, including the data we gathered in our study.

The most prominent personal lens that influences my way of being is my spiritual practice. Mindfulness is my mantra in my daily practice of yoga, eating, meditation, walking in nature and prayer.

My personal viewpoints on spirituality and some of my ways of being definitely influence my relationship to our research and the topic of nature and healing because the way I see the world, all of life is connected and everything we do and say has an effect on the living world that we inhabit. I believe that we are intimately intertwined with nature and as humans are a part of the elements that make up the universe. Therefore, I believe that our connection to nature and our need for it runs deep. This connection makes it impossible to be objective and detach oneself from our chosen method or results of our findings. In addition, I believe that there are no absolutes in life. Therefore our method is valid, regardless of opinion. And, all of our findings are true, and all of our results can be interpreted in myriad ways depending on the paradigm and lens of the researcher. My belief in no absolutes makes it a challenge for me to agree with studies that disclaim the existence of spirit and our innate connection to nature. However, I am always open to listening and to trying to understand even if I do not agree with what I am hearing or reading.

I am an initiator and a humble leader, a writer, and a secret singer. The essence of mother penetrates my touch and my words, yet I have never had a human child of my own. I have been a

problem solver, an organizer, and a manager in almost every professional role I have stepped into. This gift has been shared with my fellow researchers by helping us meet deadlines and staying on track. I am the “multitasker”, the scribe and the editor so I am often the one in the seat in front of the computer when we work together as a group. As a team leader and organizer, I strive to do my best, to be fair, and to create space for the opinion of each team member to be heard. And as a problem solver, I will always look for new ways to find answers to queries we face. Sometimes that takes the form of meeting as a group in nature and asking the universe to reveal the answers. Other times, it is a simple seated meditation, with the sun in my face.

Laura Lemieux. My love for nature inspires and impacts this research process. The north woods beckon me and is where I feel most at home. I inquire and am inspired by the diversity, intricate connections, cyclical processes, and beauty that is the ecology of our natural world. I love walking through the woods, experiencing the intricate, complex, fresh life that is all around me and in which I am, a part of. I desire to share in an intimate relationship with the natural world and all that it encompasses, along with comprehending how that world relates and interacts with myself and all that I comprise.

Through this research process, I have learned more deeply that our environments influence and shape us. I have grown to understand more fully that the relationships we hold and the environments in which we inhabit shape us in profound and complex ways. I believe we need to be present in each space we inhabit with care, intention, and honesty, being present for and listening to the experiences we are within and a part of. I have known both the destruction and the life that can occur as a result of our perceptions, relationships, and environments.

I have learned within the confines of the systematic research structure while also being present within the process of group dynamics and personal development. Learning components of research has shifted my perspective and enhanced my knowing. It has given me more insight, not only into how to conduct research with rigor and greater validity but how to live more consciously and with enhanced soundness. The research process has taught me what it means to be in healthy relationship with one's world, with one another and with oneself, and has taught me how to write and communicate more effectively and with clarity. I have established a healthier relationship with, the natural world and the elements that support us, with societal dynamics and cultural beliefs, with personal and business relationships, and with myself. I recognize I have a choice while attempting not to forget that I also possess privilege. I attempt to not sap life of its richness by too strictly containing it, while being immersed in it wholly so that recognition, discernment, and response can be fully lived.

I inquired deeply into the literature and the process of this research experience. I accessed many sources that grounded and enhanced our research. During phases of this research I was guided by my co-researchers, at times, I led. I read, organized, wrote, and edited throughout. I envisioned, articulated and created. All four of us co-created this work.

Kendra Willey. I have a constructivist mind with a heart set in the critical paradigm. I work to find a balance within the post-positivist world I operate in. The majority of my work and past studies are founded in a black and white world, with very little room for all the vibrancies of color in between. I have found beauty in the balance as all small pieces of life and existence are part of the whole.

As a listener, thinker, and sense-maker I act as a mediator in all that I do professionally and academically. I also love to feel: emotionally and viscerally. I learn by touch, feel, emotion, and movement. I'm drawn to move my body in intentional ways and find my greatest breakthroughs and cure for writer's block happen while I doodle, or balancing on one leg, or clinging to a rock face. As a researcher, I strive for clarity by carefully choosing the words I write. I mull them over and chew them up with my mind's teeth. This process has traveled out into research design and beyond. I've been able to find a sweet place of incorporating precision within the big picture.

The natural world and universe are a great love of mine. It has provided space for spiritual growth, grounded me, and cradled me. Because of nature/and time spent in nature, I have come to peace with personal trauma, grieved and processed loss, managed hurt more effectively, and have found a path to my true-self. My retreat to nature started out as an intuitive action rather than intentional choice. Over time, through my own journey to self-love, I found that in my times of weakness, fear, and hurt that I went into nature or more natural environments. Even feeling the grass between my toes, seeing a bird huddled in its nest, or a few sparsely visible stars in the city sky is enough to bring me home to myself and a salve to my soul. I am biased in researching nature because of my deep love for it. I realize nature is a powerful force that can cause pain, heartache, and loss on its own-- but I believe nature is more healing than catabolism.

Method

The purpose of this chapter is to describe the method we used to carry out the research. In order to answer our question regarding how nature impacts the human spirit, we applied interpretive phenomenology and arts-informed methodology. This chapter describes our culture of inquiry, our sampling method, instrumentation, data collection, qualitative data analysis, and reliability and credibility. We then address ethical considerations. Finally, we outline the strengths and limitations of our design.

Culture of Inquiry and Methodology

The phenomenological culture of inquiry examines the lived experiences around a certain phenomenon (Braud & Anderson, 1998; Charles & Toadvine, 2003; Creswell, 2007; Edmonds & Kennedy, 2013; Heidegger, 1962; Patton, 2002; Vakoch & Castrillon, 2014). This culture of inquiry was the best for studying the phenomenon of how spending time in nature impacts the human spirit for three reasons: First, it allowed us to observe in-depth different lived experiences and to extract the common threads and meanings surrounding the stories connected to those experiences. Second, the standardization found in many other cultures of inquiry are not as appropriate for collecting data on the nature of the spirit as they do not allow one to be present in the immediate experience and reflect from the first person point of view. Thirdly, stories and creative expression offer a rich way to capture the essence of spiritual experiences which can be embedded with meaning (Braud & Anderson, 1998; Greatrex-White, 2008; Heidegger, 1962).

Interpretive phenomenology was our culture of inquiry and our methodology was arts-informed. Heidegger's interpretive phenomenology emphasizes that perception and interpretation of one's presence in the world cannot be separated from the world (Greatrex-

White, 2008; Heidegger, 1962). This links directly to both our constructivist and critical ideologies in which it is not possible to separate the known and the knower. We were able to holistically sense and understand the phenomenon from our own vantage point by participating in this study which was grounded in interpretive phenomenology. Participation also enhanced our relationship/connection to the lived experiences of the participants, affording us greater insight. This insight assisted us in the interpretation of the experiences of others by bringing more clarity to the study and enabling us to conduct the research with increased vigor and insight (Braud & Anderson, 1998; Greatrex-White, 2008).

Finally, Young and Koopsen (2011) refer to art expression as the language of the soul and, therefore, we used the vehicle of arts-informed methodology to assist participants in articulating matters of the spirit. The arts-informed method was necessary for this research for two reasons. First, spirit can be difficult to describe and creative expression is one way to articulate or capture what is going on inside of a person. Second, the arts-informed methodology allows for one to bring a message forward that is often difficult to express when limited to literal language and dialect. Using the arts-informed tools expands one's knowing and provides another avenue for the expression of one's experience around the topic (Knowles & Cole, 2008).

Sampling Procedures

Convenience sampling is a non-probability sampling technique that involves sharing information about the study with acquaintances, friends, and/or strangers through the use of e-mail, social media, and/or flyers thereby extracting a convenient sample population (Lund Research Ltd, 2012). Using convenience sampling, we presented 134 acquaintances with flyers (See appendix A), person to person or via e-mail. Interested parties contacted us via the email

address naturespiritresearch@gmail.com. The requirements for inclusion in this study were the following: participants needed to be at least 18 years old, understand and write in English, and be able to be outside in inclement weather. Thirty-one individuals expressed interest in the study but five dropped out before signing the consent forms, leaving a total of twenty-six participants.

Instrumentation

We chose three instruments for data collection; they were the researchers, photography, and journaling. The following describes the rationale for the use of these three instruments and why they best served the chosen methodology in our attempt to answer our research question.

Researchers. As researchers within post-positivist and constructivist paradigms, we recognize that we do not maintain objectivity but that our historical backgrounds, our personal experiences, our ethical and/or spiritual beliefs all affect the interpretation and implementation of this research. Therefore, our personal interpretations of the literature could not be removed from our study. We were instruments in all phases of the research process; review of the literature, design, development, data collection, and data analysis. We practiced reciprocal reflexivity in an attempt to maintain reliability and credibility. This required repeated examination of our beliefs and assumptions and a “rigorous accounting of them” throughout the entire research process (Butler-Kisber, 2010, p.19). We understand that we are subjective beings and that who we are has significantly impacted this research, we strove for transparency and an explicit accounting of our beliefs and assumptions. This allows for a clearer view as to how we functioned as instruments.

We critically and systematically collected and analyzed data while maintaining reflexivity, following the data and themes without the rigidity of a computer program. This

included transcribing journals, documenting personal observances in notes and on spreadsheets, and discerning what type of analysis to conduct. In the instrument role, we created brain maps based on chosen analysis, and used them to assist in finding prevalence, uncovering the themes, and finally interpreting the results further, from a qualitative data analysis computer program. As four researchers, we were better able to hold each other accountable and shed light on our unique biases, rooting out many that may have occurred had this study been done individually.

Photography. Photography is a tool that offers the possibility of expression by means other than linguistics through the use of symbols, images, colors, thoughts, designs, and ideas (Knowles & Cole, 2008). We asked participants to take a photograph during their immersion time in nature that captured and/or reflected their daily experience. This enabled participants to express the spiritual self in an artistic way with the potential of bringing awareness to their personal experiences. Photography also enhanced the depth of the data we collected in this study by offering the possibility for participants to be more observant of their surroundings and to visually depict their spiritual experiences in nature. We hoped that the participants' photographs would allow us to conceptualize the inner revelatory expressions, thereby adding detail to their written articulations from their journals (Ryan et al. 2010; Song, 2012; Zhang et al, 2013).

Journaling. Journaling promotes the free flow of thoughts which arise from the inner self and therefore is another way to collect data of the spirit. Dwyer, Piquette, Buckle, and McCaslin (2013) state, "journaling is storytelling to ourselves and our stories are how we interpret our lives" (p. 38). For this study, each participant was given a new journal. We asked the participants to reflect upon a quote and/or statements from within their journals during their time spent in nature (See Appendix B). Each day focused on a specific dimension of spirituality found in the

Spiritual Wellness Inventory (Childs, 2014; Ingersoll, 1995) combined with aspects of the Nature Connectedness Scale (Mayer & Frantz, 2004). We used the ten spiritual dimensions for reflective prompts as they aligned with what researchers understood about the potential relationship between nature and the human spirit. The ten spiritual dimensions were: Conception of the absolute/divine, Meaning, Connection, Mystery, Sense of Freedom, Experience/Ritual, Altruism, Hope, Knowledge/Learning, and Present-Centeredness. The statements were starting points for participants to meditate on, guiding them throughout their immersion, journaling, and photographic experiences. Participants read the spiritual dimension prompts for inner reflection prior to their nature experience.

We allowed for individualistic, open-ended, process-oriented data to emerge by using the journaling tool in this way (Knowles & Cole, 2008). Journaling opens up a profusion of information, assisting one in learning about the inner spirit and soul of a person. Creative expression can often reveal meanings of objects, experiences, and interactions that one is not immediately aware of (Knowles & Cole, 2008).

The journaling tool increased the credibility of the study by adding another dimension to data collection of the day-to-day experience of nature's impact on spirit (Whittemore, Chase, & Mandle, 2001). We could examine the complexities of the phenomena with more vigor and understanding by allowing for the unveiling of the phenomena through the human senses.

Data Collection

Interested individuals contacted us via e-mail after receiving the flyer. We initiated communication with each interested party about the details of the study, and each individual who met the inclusion criteria requirements was accepted for participation. The researchers then met

with the participants individually in agreed upon locations to go over the informed consent form and to answer any questions that the participants had prior to the study. This process involved meeting prospective participants in person, over Skype, and through telephone conversations. Two participants who did not live in Minnesota or Wisconsin engaged in virtual and/or telephone meetings. We met with the rest of the prospective participants at times and locations that were convenient for both the potential participants and the researchers. We chose public locations for meeting sites in order to remove any perceived coercion that might occur in a private setting. However, nine meetings did occur in participants' homes and offices because of convenience for both parties. One of us went over the step-by-step expectations with each participant after the informed consent forms were read. The participants then signed the consent forms. Participants had the right to opt out of the study at any time, for reasons they deemed appropriate. The researchers, as participants, were held to the same consent form standards and had the right to opt out during any phase of the study without coercion and/or retribution from the other researchers.

Several studies have found that spending fifteen minutes in nature can have a profound impact on one's health and wellness (Lee et al., 2011; Lee et al., 2014; Ryan et al., 2010). Because of this, we asked the participants to spend a minimum of fifteen minutes, five days per week, for two weeks in nature in order to make participation in the study realistic for individuals with busy work and home life schedules. We also asked participants to journal about their experiences and record in their journals the amount of time spent in nature if it exceeded fifteen minutes. Participants could choose the time of day and setting for their nature experience and

their journaling, and could vary their choice based on personal day-to-day needs and preferences.

In the following paragraphs, we discuss in detail the expectations required for data collection.

We asked each participant to reflect and journal about their daily experience any time before the next nature immersion. We also encouraged them to take their journals with them so that they could reflect upon the prompting statements. In their journaling exercise, we asked them to describe the setting they chose and why, and to include reflections of their experience in relation to the daily quote and statements that we provided. Additionally, we asked the participants to write a brief statement or description about their photo in each journal entry.

Since the participants took a photograph while in nature, they had to take a camera with them during the immersion. We asked them to refrain from cell phone use during the immersion experience; this included calling, texting or receiving calls. This was to avoid interruption during the immersion experience and to give room for fascination attention to emerge (De Bloom, Kinnunen, & Korpela, 2014; De Young, 2010; White, Pahl, Ashbullby, Herbert, & Depledge, 2013). They could, however, use their cell phones to take their daily photos. At the conclusion of the immersion experience, the participants either e-mailed copies or turned in their photos and journals to the researchers. There was no attachment between participants' names and their journals. Instead, each participant was assigned a four digit number. Participants submitted their journals with their four digit number and the day of immersion on each image so that photographs were connected to the appropriate day of immersion in nature and the appropriate journal. We returned participants' journals upon completion of data analysis.

During the course of the study, we observed several variances within our process which may or may not have influenced this study. Through discussion, we noticed that each of us

presented the consent forms and details of the study to participants in different ways: each researcher met with the participants that they were acquainted with due to convenience and comfort. However, the researchers did not discuss *how* they would interact with potential participants and go over the consent forms. Some researchers asked the participants to repeat the requirements of the study in their own words. Other researchers believed that if the participants had questions, upon reading the entire consent form, they would ask. Because of this, we noted that participants interpreted the instructions from the consent form differently.

Qualitative Data Analysis

We began the data analysis process by collecting journals and photographs from the participants on an agreed upon date. We numbered each journal and photograph so that they could be easily accessed and cross-referenced. We distributed the journals amongst us and then transcribed them between the four of us. We then photocopied each photo and journal so that each of us had a full set of the data collected. The assigned four digit number for each participant was put into one shared Excel table for easy access and viewing by all of us. After the transcription process was complete, we read through the entire collection of journals individually. We then met together to discuss and compare our notes on the data collected. We began by forming a collective brain map (Appendix C) to determine the most common words and themes that had emerged after reviewing all of the journals. For photo analysis, we first viewed the pictures with the accompanying journal entry. We then grouped the photographs from all the journals in groups pertaining to the immersion day. We analyzed the data using three different types of thematic analyses: narrative, emotional, and computer generated.

Narrative analysis. We began with narrative thematic analysis. This type of research analysis involves attentive listening to, or the reading of, individual stories and experiences shared within a particular context, in order to extract and understand meaning that participants expressed and created (Saldana, 2013). Within this process we read each participant's story as he/she expressed it in the journals. We read each participant's reality, assembling what they conveyed into themes. We drew out what each participant said about how they interact and experience spirituality in life, and how nature impacts their spirit. For this analysis, we read through all of the documents, noting and writing down daily and overall narrative themes from each journal entry. Once we individually analyzed the journals, we collectively gathered together to discuss and compare the narrative themes we individually identified. We began our collective process of analysis with brain mapping and we compiled themes into lists in Excel charts and Word documents. We grouped similar words and themes together into main categories and major themes.

We asked the participants to take a daily photograph representing their experience or their inner spirit. Along with the photograph, we asked the participants to write a statement about their daily photographic expression in their journal. We included this form of narrative data because we believed that it would allow for greater insight into understanding the spirit of a person, by means of artistic expression. While we found that the photographs enabled participants to engage with their surroundings on a more personal level, it was not possible to extract multiple overall themes from within the photographs themselves unless the participant clearly stated what they captured in the photograph.

Emotion analysis. Once the narrative analysis was complete, we began the process of emotion analysis. This type of analysis involved noting particular feelings expressed within the stories and finding the emotion themes (Saldana, 2013). Hodge (2013) states that “the presence of an emotion may indicate that a spiritually relevant topic has been touched on” (p.223). For many, spirituality is often experienced through their feelings (Pargament & Krumrei, 2009). In order to analyze emotion themes, we read through the journals noting emotional expressions within the context of each entry. We did this twice to ensure that we captured all of the emotions. Upon completion, we met again and compiled the emotions into lists and categories. We coded expressions by prevalence and relevance and we consolidated similar expressions.

We also noticed transitional emotion themes that occurred among half of the participants. On several occasions, an emotion would transform during the course of the time spent in nature leading to a sense of joy, gratitude, or peace.

Computer generated analysis. We used a qualitative data analysis program, NVivo, to examine the data from another perspective. NVivo is a computer software program designed by QSR International for in-depth text-based qualitative analysis. We entered each transcribed journal into the NVivo program and conducted a word count on the entire group of journals. We attempted to account for potential biases by using the NVivo program along with the other forms of data analysis to see if different codes emerged from the data through computer-generated coding. We noted the predominant codes and grouped similar words together. This was done in order to capture a more accurate picture of the main themes. We did not include words like “time”, “day”, “feel” or “nature” as codes, as they would not generate applicable themes. It was up to our discretion to find similar words and categories from within the comprehensive list and

consolidate them and locate the themes while attempting to remove our own biases during this process. Once common words and themes emerged we ran the *word tree* feature in Nvivo. The word tree feature allowed us to more easily view journal context surrounding specific words from all the journals. We acknowledge that with this type of word analysis, certain words may be used out of context and this analysis alone provides a limited view of the themes. We also recognize that this type of analysis moves a researcher a greater distance from the data analysis process and potentially reveals biases. Looking at the data from multiple perspectives allowed us to triangulate the data and enhance the validity of the thematic analysis by taking into account potential assumptions and biases.

Ethical Considerations

The St. Catherine University IRB approved this study. The participants signed an informed consent form documenting the potential risks of being involved in this type of study. The components of this study had the potential to unearth personal aspects of the human spirit. Such introspection can lead to emotional and spiritual vulnerability which can be both illuminating and challenging. These vulnerabilities have the potential to arise during time spent alone. Therefore, a resource list of emergency and social support services was available to all participants if the need arose (See Appendix D).

Due to the fact that this research took place in the middle of the winter season, participants were made aware of potential environment risks which were out of the researchers' control, but could potentially cause harm to individuals. These included the following: allergy exposure, extreme temperatures, hidden tree roots, slippery snow or ice, sun exposure, etc. Therefore, we asked participants to use their discretion and common sense when deciding to

venture outdoors. The consent form that the participants signed included a notification that they were responsible for costs incurred due to any injuries.

Because there was potential for breach of privacy and confidentiality, we kept the research results, transcripts, photographs, and journals in password-protected files. Our supervisors were the only other individuals who had access to the records until the project was completed. All personal identifiers were de-identified deterring the possibility for anyone to link the data of the study, or the stories shared, to the individual participants. Upon completion of data analysis, we returned journals and photographs to the participants. All other data collected was destroyed on May 31, 2016.

Reliability and Credibility

Within the framework of our day-to-day lived experiences in a post-positivist world, we believe that one cannot maintain complete objectivity yet we are aware that pure subjectivity weakens the credibility of findings (Patton, 2002). We recognize that our personal lenses and paradigms impacted the design of our study and the manner in which we collected and analyzed data. In our lenses chapter, we describe our perspective and unique interpretations with the intention of being transparent and establishing credibility by articulating our assumptions and biases, offering a complete view of our research process (Butler-Kisber, 2010).

According to Hesse-Biber and Leavy (2008), "reflexivity is the practice of actively locating oneself within the research process" (p.4). We practiced reflexivity throughout all the stages of the study, which was an essential component to the credibility of our study. As researchers, our awareness of the cause and effect relationship between the researcher and the subject being studied helped us understand that we could not remove ourselves from the research

equation. With this in mind, we attempted to openly identify ourselves at each stage of the research process in order to more clearly distinguish what we were studying.

For this study, we chose to use the ten dimensions of spirituality taken from the Spiritual Wellness Inventory (Childs, 2014; Ingersoll, 1995) as our guide for contemplation on aspects of the spirit. Since the ten dimensions of spirituality have been found to be reliable components of spirituality, we felt that using these dimensions as themes for each day's journaling would increase the reliability of our study. However, we chose to use the dimensions qualitatively because we believed that scales, though reliable, are limiting for phenomenological research. We used nine of the ten dimensions and altered the dimension of forgiveness. Because our study involved nature's impact on the human spirit, the statements around the topic of forgiveness were not appropriate for the purpose of our study as they did not relate to nature. However, previous research on nature has demonstrated that immersion in nature can increase altruistic behaviors (Zhang et al., 2013). Moreover, Huber and MacDonald (2012) articulate that spiritual awareness is directly connected to traits such as altruism and empathy stating that "the link is so ubiquitous that altruism has been likened to self-transcendence, a key component of spirituality in general and spiritual experience in particular" (p. 207). For this reason, we substituted the theme of Forgiveness with Altruism, believing that altruism comes from a similar inner emotion that draws out a desire for the well-being of something or someone beyond the self.

For the journal prompts, we combined The Connectedness to Nature Scale (Mayer & Frantz, 2004) with the Spiritual Wellness Inventory (Childs, 2014; Ingersoll, 1995). Drawing from both, we united the components of nature and spirituality and formed the four statements accompanying the spiritual dimension for each day of the study. The Connectedness to Nature

Scale is another reliable scale that is used in numerous studies to assess one's connection to nature (Howell, Dopko, Passmore, & Buro, 2011; Mayer, Frantz, Bruehlman-Senecal, & Dolliver, 2008). For this reason, we chose statements from both The Connectedness to Nature Scale and the Spiritual Wellness Inventory to serve as prompts for each day's spiritual dimension, with permission from the authors to adapt them for the purpose of studying how immersion in nature impacts the human spirit.

Our study presents a modification and unique application of both The Connectedness to Nature Scale and Spiritual Wellness Inventory. Therefore, while the original tools emerge from reliable and credible sources the, as yet, untested ways in which we adapted them affect the credibility of our study. We recognize that our own biases influence the reasons for the adaptations. However, we believe an open-ended process oriented approach in examining matters of nature's impact on the human spirit strengthened our study and provides greater depth and richness than would have been possible if left to a questionnaire styled approach.

Design Specific Strengths and Limitations

There were multiple variables that could have directly and/or indirectly affected the process and results of our study that we did not initially account for. One variable was that we did not provide a definition of spirituality or nature to the participants. Both nature and spirituality are broad terms that are often seen and defined differently based on an individual's perspectives and beliefs. When designing the study we wanted to leave room for personal stories to emerge from the individual experiences and interpretations without limiting them by our own definitions. By not defining these terms for participants or collecting direct data on how each

participant defined these terms, the findings of our study were based on each individual's beliefs about spirit and nature.

Another factor that impacted our study was the use of the spiritual dimensions, statements, and quotes in the participants' journals. We do not know how much the prompting statements and quotes influenced the participants and the resulting data. Therefore, future studies could consider using a variety of statements and quotes, as we did. Or, they could pose the same question every day to see if different data emerges.

The use of photography as a method tool did not appear as useful a tool as we believed it would be while designing the study. Some participants expressly stated what their photos represented but many did not. Therefore, we suggest that future researchers clearly specify that participants must provide detailed descriptions of their photographs. We noticed that photography seemed to deepen one's immersion experience, increasing one's awareness of their surroundings. Many studies suggest that the types of recreational activity and/or the settings characteristics are influential in determining the impact that nature has on the mind, body, and/or spirit of a person (Fredrickson & Anderson, 1999; Williams, 2010). Our study was designed from the belief that natural settings, regardless of their distinct qualities and/or the activity performed within them could have a positive impact on the mind, body, and/or spirit of a person (Han, 2002; Hansen-Ketchum, Marck, Reutter, Halpenny, 2010; Sternberg, 2010; Willis, 2009). The choice of setting one immersed themselves in was left to the participants' discernment. We asked participants to share in their journals the location that they went to every day and the amount of time that they spent in nature, but not all participants provided us with this information. Other than the one participant from Australia, settings were similar in regard to it

being a Midwest winter season. The winter season did not seem to elicit a great deal of differing data than from the Australian participant in the summer months, but as it was only one participant it is hard to draw concise conclusions. Outside of most participants being within the winter season regardless of specific location, we did not specify specific character traits that would qualify for nature immersion. We requested that they immerse themselves in nature, but we did not offer them a definition for nature or state the necessary characteristics required for a setting to be chosen. After our analysis of the journals, it was evident that the setting one immersed themselves in varied greatly. Several participants retreated to their backyards for their immersion experience, while others walked through the woods of a national park. Some of the literature that we read, suggests that there is a greater positive effect on individuals when they immerse themselves completely in nature away from any human constructs (Lee et al., 2011; Lee et al., 2014; Park et al., 2007). Because we did not limit the location of where nature could be found this could have impacted participants' experiences. Upon completion of the study, we recognize that offering a clearer definition of nature and guidelines for choosing a setting could have accounted for unknown variables and possibly strengthened our study results.

We did not specify what participants could or could not do physically during their nature immersion. Just as different environments may elicit varying effects, differing activities may also result in multiple forms of experiences and outcomes. Participants engaged in the study in different ways; many walked, some ran, still others skied or snow shoed. Others sat while a few shoveled snow during their fifteen-minute immersion experience. The activity participants chose to practice influenced their experience, which in turn likely influenced the results in unforeseen ways.

Another factor that we did not strictly control was whether the participants went out alone or in the company of others. Again, this was not consistent among participants, as many spent their time in nature with others. Making this another unknown variable as to how this influenced what participants experienced from their immersion in nature. It is evident upon completion of our study that stricter parameters around location, activity, and company would have provided more credible results by diminishing many unknown variables.

The immersion time period of fifteen minutes may not have elicited the fullest degree of positive effects that immersion in nature provides. A longer time period spent in nature may have allowed the participants to more fully engage with the natural environment with all their senses.

Due to the nature of convenience sampling, participants were acquainted on varying levels with at least one of the researchers. Because of this proximity and relationship, participants had the potential of being like-minded, and with a possibility of having an already formed connection with or affinity for spending time in nature. Convenience sampling is not representative of the population at large and our findings cannot be generalized.

Matters of the spirit are complicated and can be hard to articulate. For this reason, we chose several reflective statements that the participants were asked to read and contemplate prior to their immersion in nature. Participants could choose to reflect on all the statements or just one depending on what they were drawn to for their immersion in nature. We believed that the statements would act as a catalyst for thoughts pertaining to the inner spirit, at the same time leaving them broad enough to allow room for interpretation.

In summary, spirit can be a complex concept to describe and using a mixed methodology within the framework of interpretive phenomenology provided an avenue for greater expression

of the lived experience of each participant. The possibility for individual expression was enhanced by including multiple modes of data collection for the participants. The arts-informed method enabled participants to access and express knowledge through several means. As a result, we were able to collect richer data, thus allowing us to examine the complexities of the human experience in more depth.

Results

The purpose of this chapter is to report the findings of our research. We begin with a brief description of the participants. Then we share observational data. Afterward, we discuss the major themes that emerged from this study.

Description of Participants

Of the twenty-six participants, five were men and twenty-one were women, four of the latter were the researchers. Participants ranged from twenty-three to seventy-five years of age. The majority of individuals were from the Midwest region of the United States. Twenty-five of the participants lived in Minnesota, Wisconsin, and Iowa and spent their immersion experience in the winter during the months of January and February. Because we did not restrict the location of participants' nature immersions, one of the self-selected participants spent the immersion experience in Australia.

We did not ask the participants about their religious affiliation. However, several wrote about their faith in their journal entries. We discovered that many participants were of the Christian faith, others were agnostic and some were atheist. Several did not express an identification with a specific religion but did note a spiritual connection to nature itself.

Observational Data

Fourteen participants wrote statements about their photographs while the rest did not. Other participants documented the amount of time spent in nature while some noted the time of day it was, and still others did not document any time at all. Some journals were written like stories, others were poetic. Some entries were lengthy and others were concise. The reflections of many of the participants revealed a thoughtful response to the journal prompts and statements

of the day while in a few entries obvious connections to the statements were not evident to us.

The immersion experience and the subsequent journaling exercises were not strictly structured allowing room for personality and unique expression to emerge. One participant stated a belief that summarized this study best, “the best way to learn is by immersion”. Each participant immersed themselves in nature but did so in varying ways and with unique expression, as expressed in the following image in *Figure 1* from a participant’s journal:



Fig. 1: Image from a participant’s journal which captures immersion in nature.

Some walked while others ran. Still other participants chose to sit, ski, or snowshoe. The locations visited varied, some went to the edge of a river, some to the high bluffs, others to open expansive fields. Many participants immersed themselves in nature in solitude, and others went in the company of their children, pets, friends or lovers. Most participants chose a different

location each day, and others visited the same location almost every day. The time of day that the participants ventured out into nature also varied from early in the morning, to afternoon lunch breaks, to late in the evening.

The variances in the definition and interpretation of nature impacted individual's choice of setting. Some participants found nature in their backyards while others went deep into a forest. Some found it in urban settings and others interpreted nature as being away from manmade constructs. The location visited and the variances in what was viewed as nature were captured in the photographs. We noticed that there were many photos of the sky, trees and some animals from many locations and vantage points. There were pictures of self and others, pictures of man-made objects, of forests and backyards. Some participants took close-up images while others captured the vast expanse of what they viewed before them. The photographs did not appear to support or change with the spiritual dimension offered as prompts for the day and no consistencies emerged from participant to participant. The photographs gave a visual representation of one's experience.

The last observance that we noted was in regard to an understanding of "spirit". People can define and interpret spirit in diverse ways. During the process of reviewing the consent form with participants, spirit was defined for five of the participants, describing it as the essence of self taken from Young and Koopsen (2011). For the rest of the participants, the interpretation of spirit was left up to each individual. This differentiation was not intentional and was observed upon completion of data analysis. Some participants connected their sense of spirit with their religious affiliation. For example, one participant quoted from the Bible: "now the Lord is the Spirit, and where the Spirit of the Lord is, there is freedom- 2 Corinthians 3:17". Some

participants connected more to an earth-based spirituality, defining nature itself as “divine”. One participant wrote, “nature is divinity incarnated, a synthesis of divine relationships”. Another example of this is, “While I am an agnostic person and don’t think of there being a ‘God’, I very much feel that being in nature fills my soul, and replenishes it. If there is a place that feels divine to me, it is being immersed in nature”. Finally, one participant wrote: “What is spirit? Life force. Energy. My spirit is fed when the energy of my being syncs (this only happens when in nature or in seated meditation) with the vibration of life + mother earth”.

Themes

After reviewing the data and analyzing it, we noted six main themes. They were: connection, vibrancy, awe/presence, joy, gratitude, and compassion.

Connection. The primary theme that emerged overall was connection. Connection was a spiritual dimension that was included in the journal prompts on day-three of the immersion experiences. However, this theme surfaced repeatedly in many of the participants’ journals on several other days as well. Participants felt connected to their environment, their community, the divine, and/or themselves. Each aspect of connection was expressed within the journals. For instance, one participant stated, “I believe that with every physical manifestation lies a spiritual force behind it. We are connected on earth physically, emotionally and spiritually”. A connection to the divine was noted as one participant wrote, “As I am in nature it is easier to be reminded of our interconnectedness + connection to divine/Great Spirit”. Another participant stated, “Today I feel connected to my surroundings and my senses have increased my connection to nature”. Still another added, “I think being in nature reminds us that we’re all connected and should look out for one another”. And a few participants specifically noted how nature enhanced their connection

to life: “In nature I am connected to my essence & the essence of life, to the “oneness” of all of life” and “connecting with nature + elements reestablished my relationship to life”.

Several individuals mentioned a feeling of “insignificance” or being “a small part” of a large and complex universe. One participant wrote, “all things Rooted - whether secure or fragile, all things ‘a part’, not ‘apart’”. The feeling of insignificance was often coupled with a sense of the importance of all elements of life, and how we all create this place as a result of the interconnection of all of life. A participant stated,

We are all part of a system that is so interconnected and while the animals and plants and minerals are an absolutely vital part of the system - they need each other and we need them to survive - we are aware of this interconnectedness and therefore bear a great responsibility to protect each strand of the great web of life.

Another participant expressed a sense of connection in *Figure 2*:



Fig. 2: Image of connection, Day 3.

Some participants focused on the destructiveness that can result from a disconnection to the earth, whereas other participants focused on how a connection can create health and healing. One person articulated “I can’t say that I feel so connected that I am the same as the trees but when I spend time in nature...I am my healthiest self...I feel...a connection with nature that I don’t have elsewhere”. Another person journaled, “I am often irritated by ‘city’ and feel a temporary rest when allowed an opportunity to connect with a more ‘real’ natural world...these natural environments have brought me life...”

One participant struggled with one of the guiding statements of the day which said, “my sense of the divine increases my sense of connectedness to nature”. This participant could not discern why the concept did not align with her and then it became apparent that her “sense of connectedness to and in nature increases my sense of the divine”.

In other journal entries, binary opposites were expressed. For example, one participant uttered feelings of a dualistic reality where both connection and disconnection, as well as, individuality and oneness, coexist. This participant expressed these opposites in several of the entries... “I feel that I belong to the earth....but sometimes I feel like a foreigner” and “I feel a sense of oneness with all beings....but I also feel the distinction between us”.

A sense of connection was also expressed visually through all participants photographs in the form of trees. All of the journals included photographs of different views of trees. A couple of participants took photos of tangled branches, representing tangled lives and relationships. One participant reflected on the photo in *Figure 3* of a “large Oak Tree, grounded yet spread in the sky, symbol of the connection, how we depend upon each other, of strength and endurance and the sacred”.



Fig. 3: Large Oak Tree. Symbol of connection.

Another photograph was from the vantage point of a person looking up into the branches of an old tree. The participant wrote,

A feeling of insignificance washed over me, a feeling I've had before...Sitting under trees that have been standing since before my grandfather's grandfather lived...I felt a little small...in a good way I think...I spend so much time striving to make my way...A moment of insignificance under the trees is like an ax to my ironwood self...or like Spanx for my flabby, self-centered desires.

Photos of footprints in *Figure 4* displayed another visual representation of connection. Thirteen photos represented shared paths in life or traveled paths intersecting. One participant wrote, "My picture represents my animal family who walks the earth with me and my family". The images of footprints were not as prominent as trees, yet they emphasized the same thoughts on connection with all of life.



Fig. 4: Footprints. Symbol of connection.

Vibrancy. The second most prominent theme that emerged from data analysis was a feeling of vibrancy. This concept surfaced from all three of the thematic data analysis forms. In both narrative and emotion analysis, it was clearly among the top themes, listed as number one in emotion analysis. In the Nvivo analysis the word “life” along with its derivatives, alive, vibrant, live, and energy was again a top theme. One participant stated, “Life is a gift & even though I “forget” sometimes how special it is, I know in my heart of hearts that I am blessed to be alive”. Several other quotes/statements reaffirmed this feeling of vibrancy in nature. For example, one person stated,

I feel, many times, acutely aware that I am alive/living and free when in nature. I actually thought during this experience that when I get overwhelmed by the busyness of life or noises or people that I should just take my kids for a walk in the woods to feed our spirits and awaken us to the gifts in life.

Another participant stated,

i love to dance with the wind or be carried along by a current, or submit to gravity: gliding, sliding or rolling downhill. Losing myself in the fun, out of my head and fully alive in my body, playing with the forces of nature, respecting the unexpected.

And another participant wrote,

I love how nature can make me feel wild and so primal. Its invigorated me to run farther than I ever thought I could, throw my hands up in the air, and howl at the moon, laugh til I can't breath, shout my prayers to the sky. It's so freeing and SO healing.

One participant demonstrated this sense of vibrancy in *Figure 5* and another described it in the following way, "The presence of cold, the natural atmosphere of winter lets you see the un-seeable, lets you see the mystery of breath. I feel my lungs, I feel my head, my cheeks, my frozen eyelashes. I am glad to be alive". This same participant later added, "Snow is like icy baptism... It's good to be alive and in it". A final example of this is, "My awareness on my inner vessel was so alive. 'Alive and well' were the words I believe were spoken out loud. Alive and Well. Deep breaths inhaling the crisp air and a whole lot of gratitude".



Fig 5: Vibrancy inspired photo.

Awe/Presence. The feeling of awe/presence became the third main theme since the two went hand in hand. We linked these two words together because of the common relationship that exists between awe and a sense of awareness which participants expressed repeatedly in their journal entries. The theme for day ten was present-centeredness. However, it was a repeated theme that emerged on many other days as well.

Oftentimes, immersion in nature elicited a sense of awe (*Figure 6*), of awakening and of wonder for the participants. One participant wrote,

Awe exists equally - in the large and in the small. The true grandeur does not only occur across the sky or universe, but in blades of forgotten grass, or a withered reed, left for dead by winter's chill...awe is when I allow nature to sweep over me. True awe is only a temporary mystery as it's allowed to transform into it's natural state - that of Wonder!



Fig 6: Photo depicting awe.

Elements in nature aroused the senses and directed attention almost effortlessly to the present moment. One participant expressed, “I could go on and on about how I feel a sense of awe while in nature”. Yet another participant wrote,

I always have the chance to experience something new as I am present.
Each time a magical element that could be described as a part of nature

becomes present to my awareness. I am grateful and in awe of all the times
I have the opportunity to experience that which we call nature!

When speaking about the present, another participant stated, “As all the noise quiets to a gentle hum I find myself in the present, walking, observing, curious, and meditating”.

The subsequent *Figure 7* illustrates the prevalence of the theme of presence. It is a word tree generated from the computer software program Nvivo. This word tree is the compilation of all the journals and compiled quotes that used the word present within them.

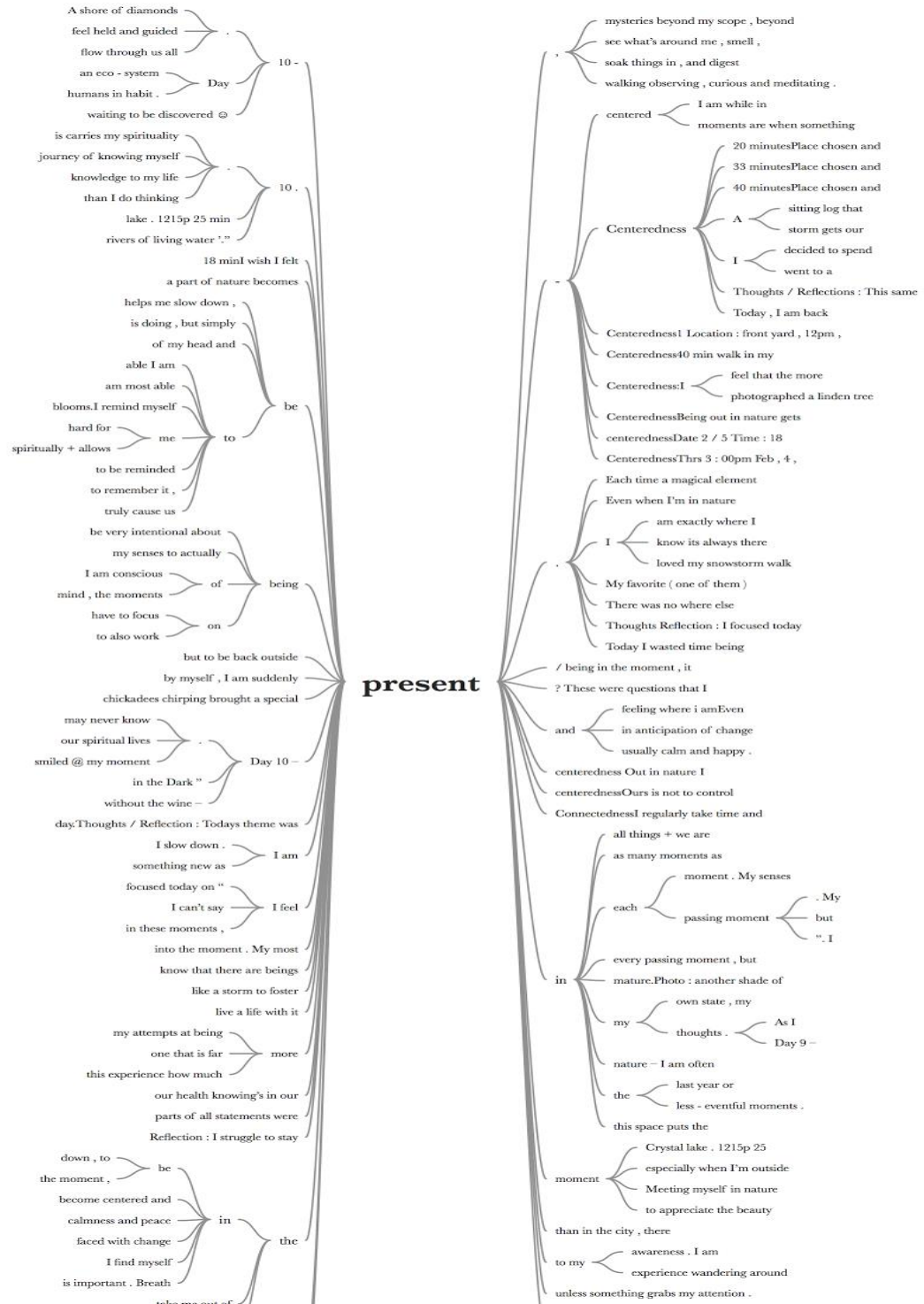


Fig. 7: "Present" word tree visually indicates the participant's' use of the word 'present' in their journals.

Joy. The declarations of joy were abundant, and we could easily fill this section exclusively with quotes. One such quote was, "When I am outside - especially in a more 'natural, less urban setting...[it] makes my heart feel huge and my chest fill up with joy". For the same participant, spending time in nature "fills spirit with joy and wholeness" and inspired "observation and wonder". Another participant stated, "Experiencing and basking in something so beautifully created brings an instant joy to my soul that cannot be shaken. After spending a day outside, I feel refreshed, rejuvenated, and fulfilled". At times a sense of joy or happiness was coupled with gratitude, often gratitude led to a feeling of joy. An example of this was,

I just am a very small part in the greater part of the earth that moves, a connecting dot of today and the moment. Today it makes me feel happy that there is a positive uplifting feel of the moment to be Thankful to God for letting me have this experience.

One Participant wrote, "when I am spending time in nature, that is when I am the happiest with myself and who I am". A few of the participants discussed a struggle with depression. One participant wrote "I appreciate the time I've spent outside because of this study. I think it has helped ward off a deeper depression that is common for me". Another who struggled with sadness wrote, "each time I went out in nature I felt better about the day, my mood lifted, and my thoughts became more positive". We found that over half of the participants in our study had emotions which transitioned. Examples of this include: fear/struggle/panic moving to peace/calm; anxiety/worry draining away; frantic or overwhelmed feelings that shifted to focused and relaxed; small concerns consuming the mind transforming into a sense of presence and authenticity; a worry/rushed mind shifting to a slower pace and opening up to

beauty; and finally, from worry to hope, peace, and gratitude. In the above instances, these transitional mood states shifted from sadness to more positive or contented feelings.

The following image in *Figure 8* is a photo one participant took to illustrate joy found in the hope of water flowing, not stagnant but alive and moving.



Fig. 8: Joy inspired photo. "Happy Little Brook".

Gratitude. The theme of gratitude emerged in different ways in the written words of the participants. Time in nature inspired the following statement in one participant's journal: "For me, it is a continual remembrance and art of cultivating genuine gratitude for the simple and profound aspects in life". Another participant declared: "...I enjoy and am grateful for all the lovely people in my life...nature gives me gratitude in my life and having a connection". One person articulated, "...just laying in the snow, getting nowhere fast...was just what I needed...I felt supported and cared for. Gratitude beamed from within".

A theme of gratitude also came up as a transitional emotion theme when participants described moving from a sense of frustration to gratitude or explaining how a sense of stress transformed into gratitude following immersion time in nature. One participant wrote, "walking [in nature]...stills the noise, disconnects from the 'tyranny of the urgent...this quiet when my body and mind are one allows thankfulness for the many joys..."

The following word tree in *Figure 9* shows connection to gratitude and offers a visual representation of the quotes within the journals. It revealed the vast expansion of what the participants felt grateful for including nature, the immersion experience, health, friends, family, and the weather.

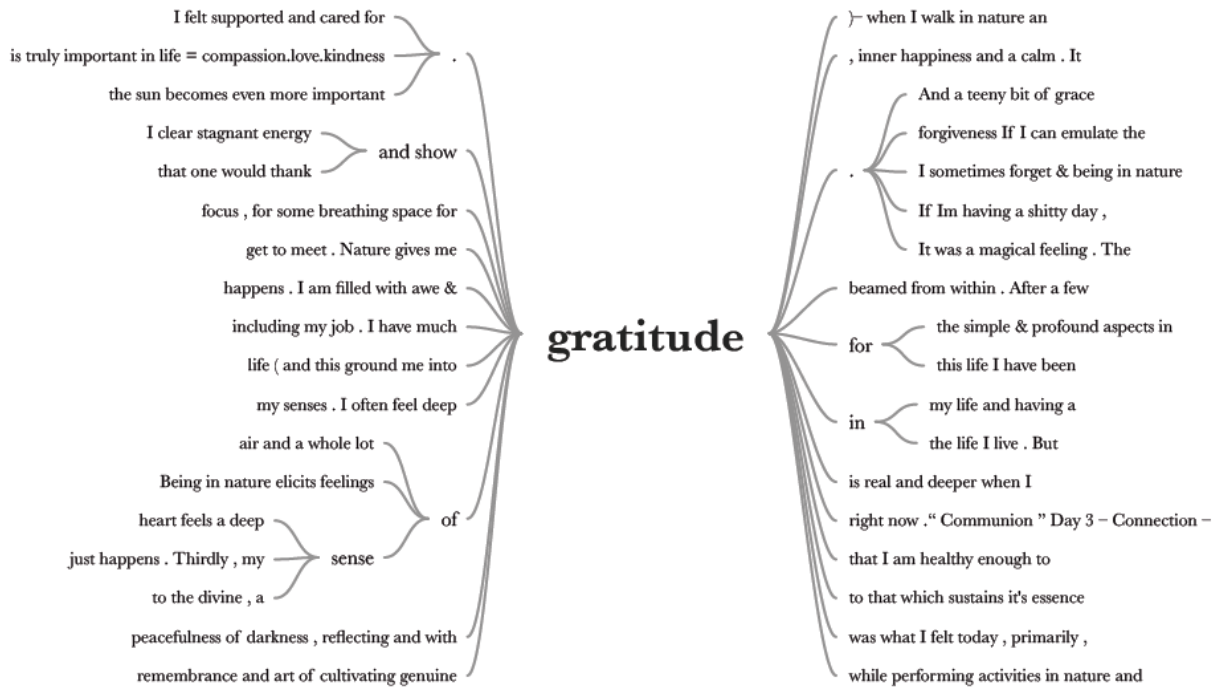


Fig. 9: “gratitude” word tree, generated from Nvivo.

Compassion. Compassion was the sixth and final theme. The theme of compassion emerged throughout the ten-day immersion period. Compassion arose in thoughts and experiences of the participants and was expressed through their written word. One participant expressed the belief that time in nature taught compassion for the self and for others. Another participant stated that “compassion aligns with nature because there is an inherent level of reciprocity and only taking what one needs”. One participant attempted to live compassionately stating, “I truly do see the sacredness of life in the beauty of nature. I tried to tread gently and intentionally giving honor to the life that I am a part of. The earth is my home and feeds me in a way that is deeply embedded”. Some participants experienced feeling compassion for themselves

and others while others felt compassion for the animals and environment in which they live, as

demonstrated in *Figure 10*. One participant wrote,

I think most important for me about nature, is the compassion I gain towards myself and thus as a consequence for others...I think the complete acceptance of me as a whole from the trees I hug, and the rivers I swim in, and the trails I cycle, and the grass I squish helps me accept the truth that I too belong here.

Another participant wrote,

I feel glad to have watched the deer up close without it running away. So furry and beautiful and peaceful-looking. It makes me think of habitat and those who naturally live in the wild. What is my role in maintaining natural habitats? How does my life and my decisions affect the animals that live so near to me? Compassion towards animals and birds is increased as I spend time in their habitat.



Fig. 10: Compassion inspired photo.

Discussion

The purpose of this chapter is to discuss our findings relative to the literature, holistic health, and future research. First we discuss how the findings connect and contribute to the research literature via each of the six key themes. Then, we explore observations and unanticipated discoveries. Afterwards, we discuss the implications for holistic health and future research. Lastly, we address additional contributions to the literature and then we offer our conclusion.

Findings

In this section, we discuss how the following six themes both connect and contribute to the existing research: connection, vibrancy, awe/presence, joy, gratitude, and compassion. Each theme is unique yet linked in various ways.

Connection. Connection was the predominant theme in the participants' journals. This sense of connection included connection in many forms: to one-another, the earth, with plants and animals, and to the divine. There is an exhaustive amount of literature on the topic of human connectedness to nature (Beery & Watz, 2014; Berger & Tiry, 2012; Ernst & Theimer, 2011; Nisbet et al, 2011; Sandifer, Sutton-Grier, & Ward, 2014; Schultz et al, 2004; Zelenski & Nisbet, 2014; Zhang et al, 2014; Zhang et al, 2013). Yet, only a few approach this sense of connection as a dimension of the spirit. Van Wieren and Kellert (2010) write that the “fundamental connection of people with nature and a purposeful and meaningful quality of life and the universe” are, in essence, spiritual values (p. 245). These values live within our intrapersonal, interpersonal and transpersonal connections. “Spirituality can be seen as a fundamental human drive for transcendent meaning and purpose that involves connectedness with oneself, others, and ultimate

reality” (Hodge, 2013, p. 224). A sense of connection is an essential element to balance and well-being for every human being (Schultz et al., 2004).

The participants in our study frequently described nature as bringing forth and solidifying connection. They shared stories of feeling a part of something bigger than self, as well as stories of feeling like a small part of the bigger world. This gave many a sense of comfort. Others shared a deeper sense of connectedness with animals and the earth while expressing a sense of wonder and curiosity. When asked how nature impacts the human spirit, one participant articulated that we are all one and that there is no differentiation between the earth, the animals, and the self. According to Young & Koopsen (2011), the interconnectedness of all things *is* a spiritual expression.

Kamitsis and Francis (2013) suggest that one’s level of spirituality determines the depth of one’s connection with nature. Like any living being, what we connect with and the quality of our connection can have either positive or negative health implications (Schultz et al., 2004). Therefore, the spirit of a person is impacted when there is a disconnection. We asked participants to think intentionally about the spiritual dimension of connection through the journaling prompts during their immersion experiences. Almost all of the participants expressed the importance of connection. Some participants wrestled with aspects of connection/disconnection declaring that urbanization and contemporary society’s destructive environmental impact on the earth affect our natural connection to it. It is difficult to ascertain to what degree the thought-provoking statements in the journals encouraged participants’ thoughts toward a specific bent since all of the participants noted their connection with nature in several entries.

One could conclude that being in nature opens up an awareness of the biophilic relationship that humans have with the natural world. On the other hand, we do not know how much our journal prompts may have influenced the thoughts of the participants. Many of the journal prompts for daily contemplation were taken directly from the Nature Connectedness Scale and therefore, could have altered the data. Research suggests that as time spent in nature increases so do feelings of connectedness to nature (Mayer & Frantz, 2004). We also do not know if this theme of connection is actively present in the thoughts of the participants outside of this study and if, in fact, the spiritual value of connection impacts their lives on a daily basis outside of being in nature.

Finally, the thematic analysis of the photos, which included trees and footprints, revealed the same theme of connection. The tree is considered a powerful symbol of life and interconnection (Wilson, 2013). The deep roots of the tree keep it connected to the earth while the nimble branches lift and reach up to the sky. The images reaffirmed the theme of connection in these forms. In the footprint images, the participants acknowledged and noticed their shared lives and paths with fellow humans and animals, intersecting and dependent on one another. The participants reminded us of our deep spiritual interconnectedness with all beings and the beauty and importance of being a thread in the tapestry of life.

Vibrancy. The second most prominent theme after connection was vibrancy. Words that described a feeling of vibrancy in the journal entries included energized, rejuvenated, alive, and exhilarated. Young and Koopsen (2011) define spirit as the essence of self, or the breath that infuses life and provides meaning; a part of the inner spirit's manifestation is this experience of having life, feeling alive or being energized. This suggests that vibrancy is a spiritual attribute

encompassing an active inner awareness of being and existing in this world in a meaningful way.

It involves an acute sense of breath, heartbeat, presence and could easily overlap with the third theme of awe/presence.

We found this sense of vibrancy prevalent throughout many of the participants' journals. This concept of feeling alive has been documented in recent literature under the category of vitality, which Ryan, Weinstein, Berstein, Brown, Mistretta, & Gagne (2010), define as "having positive and mental energy" (p.159). Many studies confirm that this inner feeling of being alive is enhanced while in nature (DeYoung, 2010; Pesek, Reminick, & Nair, 2010; Ryan et al, 2010). Some of the participants articulated this as feeling more fully themselves while others expressed that their healthier self-emerged in the solitude and beauty of nature. Many participants spoke about feeling fulfilled and vibrant during their immersion in the outdoors.

These feelings of being alert and alive while in nature could be explained in many different ways. Our current chaotic lives could very well squelch a sense of feeling alive and, therefore, heighten one's emotions when in aesthetically beautiful and quiet spaces. In a hurried pattern of living, solitude can be a rare gift and the ability to be alone in a quiet environment could elicit such feelings of life. However, solitude does not necessarily lead to feelings of being alive but instead can create a sense of peace or calm. And, according to many studies on vitality, if one is able to feel more replenished in nature, it can naturally lead to a fuller and more vibrant life (DeYoung, 2010; Pesek, Reminick, & Nair, 2010; Ryan et al, 2010). Another possible explanation for the emergence of this theme could be that our survival instincts kick in while in nature and we become more acutely aware of sound and movement. Since fight or flight is instinctive, our senses may naturally come alive outside of the comforts and safety of home.

However, if individuals feel more fully themselves and more *alive* in nature, perhaps it confirms the necessity of nature and the biophilic role that nature has on our lives (Schultz et al., 2004), suggesting that nature's impact is pivotal in exploring and accessing the inner spiritual life.

Awe/Presence. Attention that is captivated by nature's mystery, beauty and wonder not only affects a sense of vibrancy but additionally opens one up to the present moment by drawing upon a sense of awe. The theme of awe was quite prevalent in many of the journal entries. Few studies found in the literature refer to the relationship between nature and a sense of awe, yet several studies reveal how nature restores the inner spirit through fascination attention and beauty (DeYoung, 2010; Ryan et al, 2010; Uysal, Satici, Satici, & Akin, 2014; White, Pahl, Ashbullby, Herbert, & Depledge, 2013). For example, DeYoung (2010) speaks to this in his article on mental vitality and the benefits of walking in nature, where he explains the difference between fascination attention and directed attention. He articulates that often our moment-to-moment attention in life is directed by the essential tasks of the day, requiring our mental energy and effort. If there is no respite from directed attention, individuals can feel drained of their inner resources due to stress. However, immersion in nature tends to draw upon our fascination attention, engaging our involuntary attention which by its very nature is effortless.

Fascination attention evokes a sense of awe. This feeling of being overcome by emotion *is* an expression of the spirit. Hodge (2013) states that spiritual experiences are expressed through evocative emotions. We have many ways to experience the spirit but have no way to express it other than through our emotions, words, or actions. Awe is one such expression of the transcendent mystery beyond our scope of understanding. According to Hodge (2013), "interactions with the sacred frequently result in feelings of awe, reverence, and solemnity" (p.

223). Oxford's dictionary (2016) describes awe as "a feeling of reverential respect mixed with fear or wonder". The sanctity of nature was well known to indigenous groups who were dependent upon it and knew nature's power, fierceness, and beauty (Portman & Garrett, 2006; Wilson, 2003). Awe and reverence towards the earth were imminent for survival. In modern times, we have become so removed from nature and our reliance on it that when we immerse ourselves in nature we experience feelings of awe, amazement, fear or transformation by the beauty and mystery that exists in it. Participants shared their feelings of awe in depictions about the wonder of a tree, the call of an owl, or the sound of one's breath. This fascination attention kept the participants in the present moment in a restorative way, making them feel awakened to the life in and around them.

The spiritual dimension for the last journaling day was present-centeredness and this could have impacted the participants' responses. However, these expressions of presence were articulated on many of the other days as well. Nature stimulates our senses in a way that can be personally satisfying and inspiring while orienting one to the present moment (Kaplan, 1995). Many participants wrote that in nature they felt centered in the present moment, contrary to feeling distracted when they were away from nature. This led us to ask why time in nature inspired fascination attention. One possibility is that solitude allows individuals to become involved in and attentive to the present moment, free from distractions and responsibility. Immersion in nature could draw individuals out of their directed thoughts into an observance of the life around them. Contact with the call of a bird, the quiet presence of a deer, or the growth of a plant can connect people with nature and all the elements that it contains. Our research results led us to wonder if humans become more fully aligned with their spirit, and in tune with

themselves and the surrounding world, when in nature, thus drawing them into the present moment.

Joy. Joy is an internal state of being that is often pursued in the American life. The National Institute of Health (NIMH, nd) states that “major depression is one of the most common mental disorders in the United States”. Self-help books promising to rid people of depression line the shelves of bookstores in an attempt to combat this epidemic. Louv (2008) stated from a 2003 survey that “the rate at which American children are prescribed antidepressants almost doubled in five years, the steepest increase - 66 percent - was among preschool children” (p. 49). With statistical rises in depression among children and adults, joy seems to be, at times, difficult to attain.

Louv (2008) postulates that the healing power of nature is not used to its potential and that “evidence suggests that the need for such medications [antidepressants] is intensified by children’s disconnection with nature” (p. 50). Louv links these findings to a current condition resulting from the absence of nature in our lives which he refers to as nature deficit disorder (Louv, 2008; Louv 2011). The author goes on to discuss that immersion in nature can relieve some of the stressors that people face day-to-day which leads to sadness. Several of the studies that we read confirm that nature has a positive effect on mood states (Berman et al., 2012; Lee et al., 2011; Lee et al., 2014; Zelenski & Nisbet, 2012). Some even indicate that urban settings actually increase hostility, while nature immersion, completely away from human constructs, leads to a happier self (Berman et al., 2012; Lee et al., 2011; Lee et al., 2014).

It seems like an obvious bias to conclude that immersion in nature will always help one’s mood, yet, as one of the participants in our study so eloquently stated “It can’t be a simple:

nature = good, modern life/technology = bad. Nature can't really be assigned human terms like good and bad or moral or terrible. It just is". If our lives were truly immersed in nature all of the time, we might find the elements of nature challenging. Yet we found that almost all of the participants in of our study expressed a sense of joy during or after spending time in nature, even when they typically tended towards a more saddened state in their lives. It may be that we just don't have enough time spent in nature on a regular basis and that adding nature immersion into one's daily schedule does, in fact, feed an inner spiritual need. Individuals also tend to hibernate in the winter, seeking the comforts of a warm home, and perhaps by encouraging individuals to get out into the elements and fresh air, the participants naturally felt revitalized and joyful. We ultimately do not know, yet our study reconfirmed that nature immersion has the potential to bring, at the very least, momentary joy to individuals.

Gratitude. Often a sense of joy leads one to gratitude. Every participant, at least once, wrote about something they were thankful for or expressed experiencing feelings of gratitude. Gratitude is an active, conscious choice humans need to make on an ongoing basis within life. It is not always an easy choice to make and may be somewhat painful depending on one's circumstances (Emmons, 2007). When people practice gratitude for the momentous parts of life and eventually maintain gratitude for the simplicity in life, we allow ourselves to be transformed, and foster resiliency. When transformed by gratitude, we can maintain it despite our situation. This is the definition of resiliency (Sood, 2015). Resiliency is a signature of nature. Nature demonstrates this resiliency with the passing of the seasons, withstanding abuse and neglect from pollution, and the rebirth of all things new in the spring. Because we are connected to nature, it is also possible that feelings of gratitude emerge when individuals are feeling more connected and

grounded (Shubin, 2013; Sternberg 2010). The participants' declarations of gratitude may have been a side effect of their own individual resilience which was awakened by the nature immersion.

It is difficult, however, to discern which aspect of the immersion elicited gratitude. Perhaps it was the gift of time, giving the participants the opportunity to reflect. It may have been because of the reflection exercise, potentially giving the participants a sense of empowerment and importance that their experiences were being heard and contemplated by others. Perhaps it was one or multiple aspects of the benefits of spending time in nature: physical activity, socialization, and/or a haven/retreat from consistent demands (Grinde & Patil, 2009). All of these could have harnessed feelings of gratitude in the participants. It is not an uncommon result to see gratitude within participants after time in nature. The data suggests that spending time in nature, and observing the beauty of nature feeds the spirit with joy and is often accompanied by feelings of gratitude.

Compassion. The final theme that was predominant in our study was compassion. Compassion is considered to be an essential tenet of spiritual well-being in many religions and spiritual practices from Buddhism, to Christianity, to the yoga sutras of Patanjali (Patañjali, 2010; Smith, 2009). It is understood "as a motivation to act, to alleviate the suffering of others, to nurture and to be moved towards social justice" (Ledoux, 2015, p. 2041). Compassion is a relational experience that often arises as one enters into a new perspective and/or is able to relate to and act on behalf of another being. Having compassion allows people to view other beings as subjects and not as objects of "interchangeable material resources" (Slicer, 2015, p.1). According to Huber and MacDonald (2012), "in both scientific and religious literature...spiritual awareness

or awakening...has been linked to the expression of positive traits such as compassion, love, altruism, and empathy” (p. 207).

Zhang et al. (2013) suggested that nature can bring about these positive traits. Weinstein, Przybylski, & Ryan (2009) findings affirm that immersion in nature “facilitate[s] valuing... more prosocial and less self-focused values and value-laden behaviors” (p.1315). The literature suggests that there is a link between compassion and altruism (Huber & MacDonald 2012; Weinstein, Przybylski, & Ryan 2009; Zhang et al. 2013). When one’s mood is elevated by the relief of stress and enhanced feelings of restoration, one is more likely to have and experience compassion as well as other altruistic behaviors. One of the daily prompts for journaling was altruism. Altruism and compassion are not the same thing but are “complex and multidirectional” (Huber & MacDonald, 2012, p. 206). Compassion appeared to arise both on the day prompted by the journaling topic of altruism, yet on many other immersion days as well.

Kindness and compassion are often remiss in a world where violence lines the pages of newspapers and TV shows, yet these spiritual attributes flowed from the pages of the participants’ journals. As we read, we witnessed participants’ concern for the birds, the deer, the earth, and one another. This was not expressed when viewing some form of destructive impact on nature where an obvious response could be one of concern, but rather compassion arose when viewing the beauty of nature. Many participants articulated concern for the earth’s overall health and humanity’s imprint on it. The works of Emerson and Thoreau (1836/1992) beautifully express nature’s positive impact on individual spiritual traits in the following way by stating, “standing on the bare ground - my head bathed in the blithe air and lifted into infinite space - all mean egotism vanishes” (p. 8). One of the participants in this study articulated similarly by

saying “A moment of insignificance under the trees is like an ax to my ironwood self...or like Spanx for my flabby, self-centered desires”. If being in nature can illicit such values as compassion or altruism, making the self-centered “mean” go away, then it would seem imperative that nature is maintained, valued, and even, perhaps, prescribed. Nature immersion is an inexpensive way to feed the spirit, mind, and body of a person bringing about greater human flourishing for the self and others. Experiencing beauty can lead to thankfulness and gratitude which in turn, can lead to greater humility and compassion where one realizes that there is more beyond the confines of the self. We conclude that nature draws us into connection, inspires awe and gratitude, and brings forth this valuable dimension of the spirit.

Observances and Unanticipated Discoveries

We left the task of journaling up to individual interpretation, free of constraints. This led to many different ways of sharing personal stories. Some were like a stream of thought and others were more abstract and poetic. Because of the different ways in which participants chose to share, we wondered if asking the same question every day: "How does nature impact your spirit" would have elicited more focused answers from the participants, or if it would have limited their ability to respond. We believed that the broad range of statements led to richer results, by opening up the person to various aspects of the spirit, and that limiting the study to one question could have inhibited this expression.

We were not sure how participants would feel about venturing out into nature during the cold Midwestern winter. At one point, we even thought we might not get enough participants for the study. In fact, there were a few potential participants who said that they would love to participate in the study, but only in the summer months. In the end, we discovered that many

people wanted to participate and almost all of them enjoyed the discovery that being in nature during the cold winter months can be beautiful and restorative. Winter brought about an unexpected solitude and quiet. This factor alone may have impacted the experiences of the participants in a healing meditative way, allowing for stillness, quiet, and respite from the noise of everyday life. In the words of one participant:

It's easier to be grateful, get a sense of the divine, and feel unified with a natural world that is colorful, warm, and inviting. Winter can repel, make you pull within yourself instead of reach out to embrace it. I wanted to reach out to embrace winter, be in it peaceably rather than shirk and avoid it. Embrace the sense of quietude and hibernation that winter brings. Embrace the bracing wind as winter breath. Left foot, right foot, breathe.

We conclude that the winter did not seem to inhibit a connection or a positive nature experience. In various ways, it may have enhanced the experience, and spending time in nature in the winter was healing and restorative for many of the participants. However, conducting this study during each seasonal cycle would be a worthwhile endeavor to see if different data would emerge in different seasons.

Implications

Our study is just one of hundreds that reveal the benefits that humans receive from nature. However, the dimension of spirituality in nature research has been virtually absent, albeit necessary if one wishes to holistically assess nature's impact on a person. This study was an attempt to fill this gap in the literature by gathering stories of nature's impact on a person's spirit. Faull, Hills, Cochrane, Gray, Hunt, McKenzie and Winter (2004) state that spirituality is the key determinant of health and that an assessment of the spirit is vital to an overall understanding of wellness, as well as wholeness. Our findings suggest that nature indeed does impact the spirit of a person in potentially positive ways. If we value holism then generating data regarding spiritual

wellness is imperative. As more natural environments are taken up by buildings and houses, we run the risk of losing the very thing that sustains and gives us life: physically, emotionally, and spiritually.

Our study revealed the positive qualities within the spiritual self that are nurtured and accessible after spending time in nature. Many holistic modalities aim to access the inner self, providing healing and wellness in individuals. Mindfulness programs, classes, and courses attempt to teach individuals how to obtain connection, gratitude, presence, and the practice of letting go as a means of enhancing a sense of well-being. These same qualities surfaced in our study and therefore we know they can be accessed after spending time in nature. Whether one is walking, sitting and/or reflecting, it seems that the important thing is to be present in nature and connect to the surroundings that nature provides. Spending time in nature typically has little to no monetary cost and is accessible to most individuals. Therefore, increasing access to nature for the underprivileged could benefit the well-being of a wider range of communities. The public health implications are of great importance and should not be overlooked, but should be researched further in order to provide succinct recommendations to the public.

Contribution to the Literature

In preparing our literature review, we were unable to find substantial research on the connection between nature and spirit. There are many who report on how they believe in the deep connection between nature and spirit (Burger, 2011; Laplante, 2009; Struthers et al., 2004; Wilson, 2003), or how they feed their spirit by surrounding themselves with the beauty of nature (O'Donohue, 2004; Zhang et al., 2014), and still others who claim spirit lives in nature (Wilson, 2003). However, research studies that investigate and support these claims are limited; few have

studied the impact, and in part because quantified measurements have not been developed that assess the connection and the impact of nature and the human spirit. Spirit is not a tangible concept as it can not be seen nor can it be measured, making it unique to each individual.

Our research study added to an already existing bundle of research supporting the idea that time in nature reduces stress, boosts our immune system, inspires connection and heals mind, body and spirit, feeding our well-being (Crowley, 2013; Farmer, 2014; Kraft, 2010; Lee et al., 2011; Lee et al., 2014; Park et al., 2007; Serbulea & Payyappallimana, 2012; Van der Riet et al., 2014; Winterbottom, 2005; Zhang et al., 2014). What made our study unique was that we focused specifically on the effect of immersion time in nature on the human spirit and we argue that the predominant themes were *spiritual* themes. Additionally, our study was the first to assess the state of spirit while in nature and structured around the Spiritual Wellness Inventory (Childs, 2014; Ingersoll, 1995) and with intentional spiritual thought. This facet of our research design makes it unique in the literature.

Finally, our study explored the impact of nature during a Midwestern winter (with the exception of one participant in Australia) and it revealed that the cold weather does not hinder an impact of nature on the human spirit.

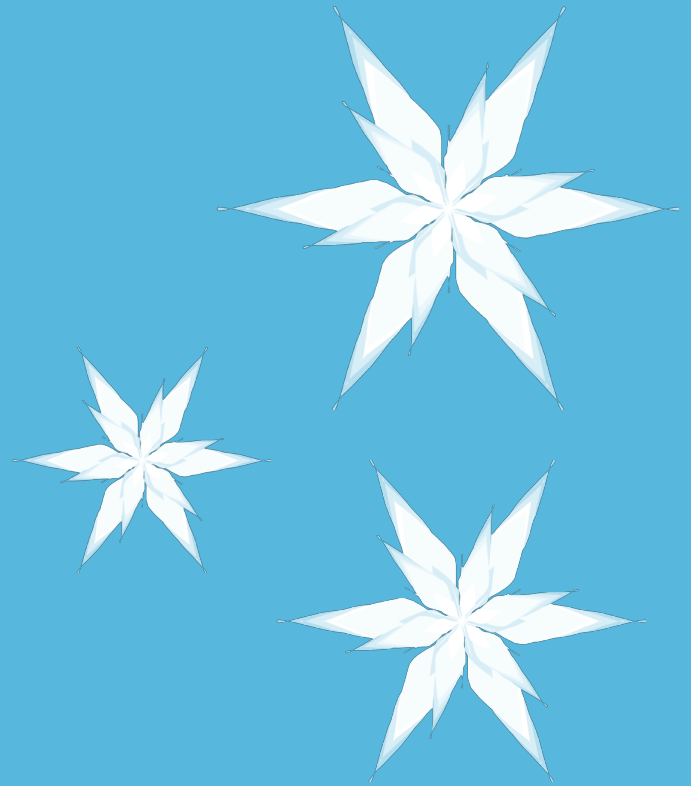
Conclusion

Research shows that spending time in nature restores and heals psychological, physical, emotional, and spiritual facets of human beings. It is a challenging endeavor to measure how the human spirit is impacted by nature because a universal definition of human spirit does not exist. Spirit is both abstract and subjective. As a result, one of the biggest challenges of our study was to identify a single definition of spirit. We chose to ground ourselves in the wisdom of Young and Koopsen who state that (2011): “being in natural environments and viewing or experiencing nature can foster reconnection with the self physically, emotionally, and spiritually” (p.78). They go on to say that spirituality is the breath or essence that infuses all of life with meaning; it “is expressed and experienced through an interconnectedness with nature, the Earth, the environment, the cosmos, and other people” (p. 114). Based on this definition of spirit and our research results, we discovered that time in nature feeds our spirit by fostering a sense of connection, a sense of vibrancy, and of awe. In addition, we observed that time in nature can be transformative, turning negative emotions into positive ones, leading to joy, gratitude, and compassion.

Our research results reveal that immersion in nature nurtures aspects of the human spirit, through a sense of connection, awe, vibrancy, joy, gratitude, and compassion. These aspects serve as mediators between nature and spirit, which in turn promote spiritual well-being. A sense of connection, in particular, is a predominant part of spiritual wellness (Seaward, 2015), and a sense of connection is an essential element of balance and well-being for all of human life (Schultz et al., 2004).

The results of our research confirm that spending time in nature, regardless of the type of activity, is a positive ally to the human spirit. In addition, spending time in nature offers a cost-free and accessible way to foster spiritual well-being. Therefore, we conclude that immersion in nature impacts the human spirit by fostering spiritual well-being.

The Impact of Nature on the Human Spirit: A Research Study



Are you interested in spending time in nature everyday? Do you want to explore the beauty of the outdoors during a Minnesota winter? If so, consider joining us for a research study this January on how spending time immersed in nature impacts the human spirit.

If you participate, you will spend 15 minutes a day immersed in nature for 5 days a week over a 2 week period of time. Immersions in nature will be documented through journal entries and a photograph guided by spiritual quotes and themes.

Contacts and questions:

If you are interested or have any questions, please feel free to contact the researchers from St. Catherine University at naturespiritresearch@gmail.com. Research will be conducted as part of the Master of Arts in Holistic Health Studies.

Note:

Any information obtained in connection with this research study that could be identified with you will not be disclosed without your permission; your participation and contributions will be kept confidential. In any written reports or publications, no one will be identified or identifiable. Participation in this research study is voluntary.

Appendix B

Quotes and Statements

The following is a list of statements and quotes for each day's immersion experience in nature. They are meant to serve as inspiration for the reflective journaling.

1) Conception of the Absolute/Divine

- ❖ My sense of the divine increases my sense of connectedness to nature.
- ❖ I feel that all inhabitants of the earth, human, and nonhuman share a common 'life force'.
- ❖ I often feel that I am only a small part of the natural world around me.
- ❖ I see the sacredness in nature.

“Walking in a sacred manner is making a connection between your step and the heartbeat of the world” - Llewellyn Vaughan-Lee

2) Meaning

- ❖ My spirituality gives me a sense of meaning in my life.
- ❖ Something can be a meaningful experience without my understanding it intellectually.
- ❖ Like a tree can be part of the forest, I feel embedded within the broader natural world.
- ❖ I feel as though I belong to the earth as equally as it belongs to me.

“The Cosmos is within us. We are made of star-stuff. We are a way for the Universe to know itself” – Carl Sagan

3) Connection

- ❖ I often feel a sense of oneness with the natural world around me.
- ❖ I think of the natural world as a community to which I belong.
- ❖ When I think of my life, I imagine myself to be part of a larger cyclical process of living.
- ❖ I often feel part of the web of life.

“When we try to pick anything out by itself we find it is hitched to everything else in the Universe” – John Muir

4) Mystery

- ❖ I often experience a sense of awe while in nature.
- ❖ I feel like I am only a small part of the natural world around me.
- ❖ Life doesn't always make intellectual sense.
- ❖ Life is about growth and change.

“When we speak of Nature it is wrong to forget that we are ourselves a part of Nature. We ought to view ourselves with the same curiosity and openness with which we study a tree, the sky or a thought, because we too are linked to the entire universe” - Henri Matisse

5) Sense of Freedom

- ❖ I experience playful moments while in nature.
- ❖ The freer I am, the more I have to offer in life.
- ❖ I feel as though I belong to the earth as equally as it belongs to me.
- ❖ I often feel a sense of freedom while in nature.

“We need the tonic of wildness—to wade sometimes in marshes where the bittern and the meadow-hen lurk, and hear the booming of the snipe; to smell the whispering sedge where only some wilder and more solitary fowl builds her nest, and the mink crawls with its belly close to the ground. At the same time that we are earnest to explore and learn all things, we require that all things be mysterious and unexplorable, that land and sea be infinitely wild, unsurveyed and unfathomed by us because unfathomable. We can never have enough of nature” - Henry David Thoreau

6) Experience/Ritual

- ❖ I have practices in nature that bring my body and spirit together.
- ❖ I often see the sacred nature of everyday life.
- ❖ I practice rituals that meaningfully relate me to nature.
- ❖ In times of pain or crisis being in nature brings me comfort.

“It is the marriage of soul with nature that makes the intellect fruitful and gives birth to imagination” - Henry David Thoreau

7) Altruism

- ❖ I feel that I have a greater sense of compassion while in nature.
- ❖ I feel that I am rejuvenated and have more to give after spending time in nature.
- ❖ I recognize and appreciate the intelligence of other living organisms.
- ❖ I feel a sense of oneness with all inhabitants of the earth.

“This we know: All things are connected. Whatever befalls the earth befalls the sons of the earth. Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself” - The Dwamish Chief, Sealth (Seattle)

8) Hope

- ❖ My spirituality helps me cultivate hope in my everyday life.
- ❖ Every moment of life has potential for hope.
- ❖ I have a deep understanding for how my actions affect the natural world.
- ❖ Even when situations seem hopeless, I have faith that they can change for the better.

“It is not so much for its beauty that the forest makes a claim upon men’s hearts, as for that subtle something, that quality of air that emanation from old trees, that so wonderfully changes and renews a weary spirit” - Robert Louis Stevenson

9) Knowledge/learning

- ❖ Learning is an important aspect of my spiritual journey.
- ❖ My knowledge is very much rooted in my experiences.
- ❖ What I consider knowledge usually affects my actions.
- ❖ I usually investigate questions that arise in my life.

“The outward search has always been important to [humanity] – the sun, the moon, the stars – to find answers. At the same time, nature represents the inward search, which has more to do with inside. Knowledge can be learned and taught. Inside is something that you have to experience yourself”- Christian Houge

10) Present-Centeredness

- ❖ I feel present in each passing moment.
- ❖ When I am in nature my senses come alive.

- ❖ I often enjoy taking time to just sit/walk and take in the world around me.
- ❖ Elements of nature stand out to me wherever I go.

“He who marvels at the beauty of the world in summer will find equal cause for wonder and admiration in winter.... In winter the stars seem to have rekindled their fires, the moon achieves a fuller triumph, and the heavens wear a look of a more exalted simplicity” - John Burroughs

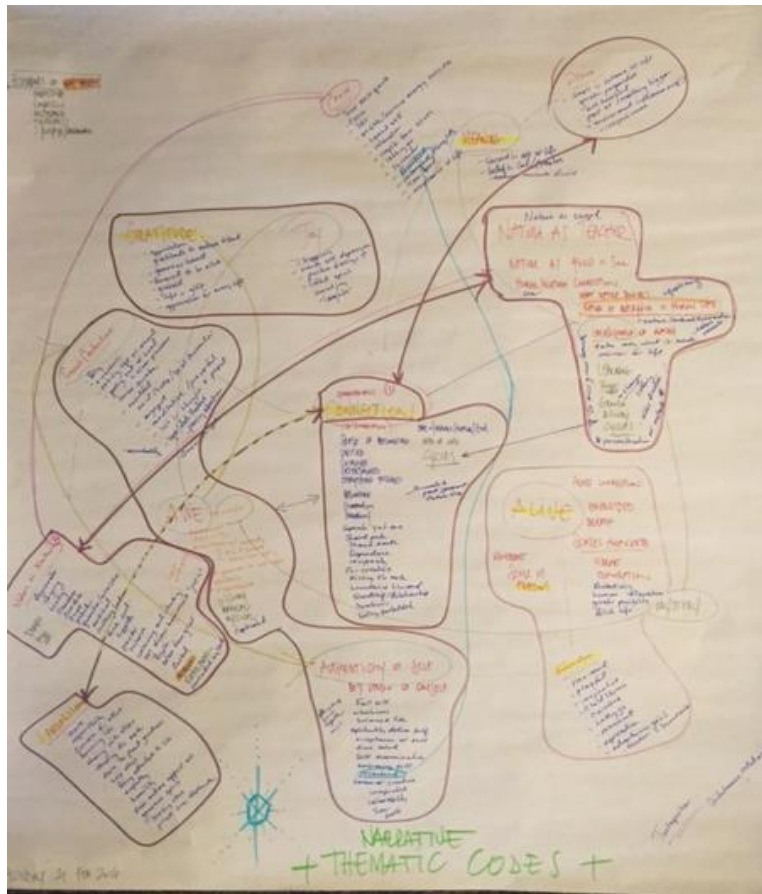
11) Conclusion:

Please make one final entry in your journal describing nature’s impact on your spirit.

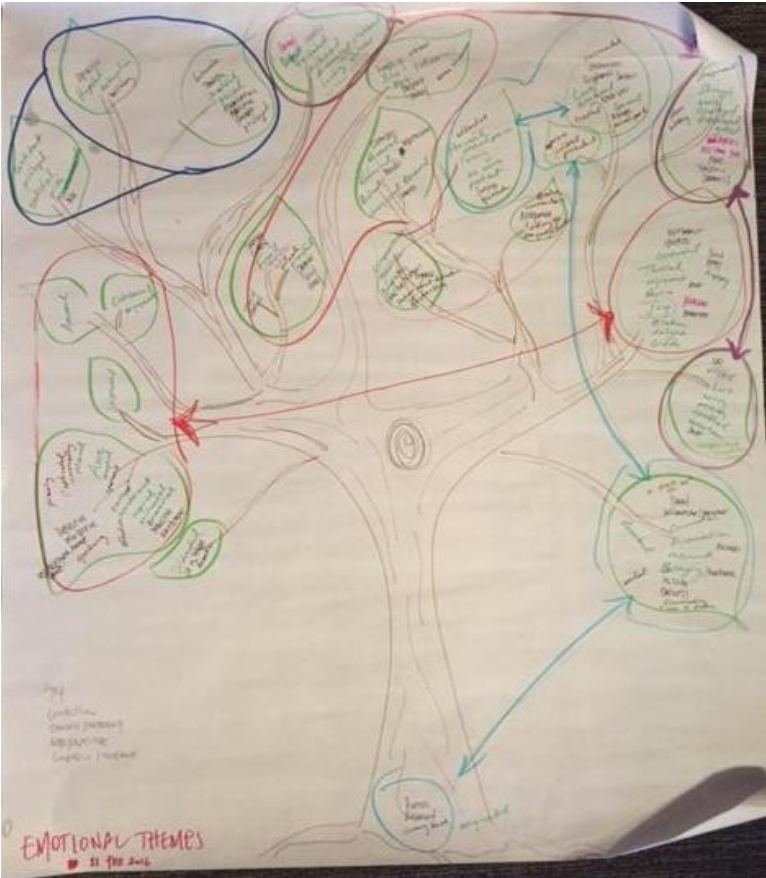
Appendix C

Brain maps

a. Narrative Thematic Codes



b. Emotion Themes



Appendix D

Emergency/crisis resources

We want you to know you are supported throughout the research process. The stirrings of the inner-self can sometimes be uncomfortable. In rare cases, an emotional or psychological crisis may arise. Please see the following resources if you need more support or are experiencing a crisis.

If you are experiencing a **life threatening emergency**: please **call 911**

If you are experiencing a **non-life threatening** psychological emergency please call Crisis Connection at **612-379-6363**

Other mental health crisis resources are available to you by county:

Hennepin	1-612-596-1223
Ramsey	1-651-266-7900
Scott	1-952-442-7601
Carver	1-952-442-7601
Dakota	1-952-891-7171

<http://mn.gov/dhs/people-we-serve/adults/health-care/mental-health/resources/crisis-contacts.jsp>
(See website for more listings by county)

If you are a student at St. Catherine University, counselling services are available to you free of charge. Contact Information:

St. Paul Campus

Derham Hall | Room 330 | 2004 Randolph Avenue

St. Paul, MN 55105

651.690.6805

Minneapolis Campus

Education Building | Room 359 | 601 25th Avenue South

Minneapolis, MN 55454

651-690-7830

Other telephone emergency resources:

Ramsey County Mental Health Crisis Line: 651-266-7900

Hennepin County Crisis Intervention: 612-873-4600

Suicide Prevention Hotline: 612-347-2222

Sexual Offense Services of Ramsey County: 651-643-3022

Battered Women's Crisis Line: 651-646-0994

Poison Control Center: 651-254-3456

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