

## The Therapeutic Value of Experiencing Spirituality in Nature

Lia Naor and Ofra Mayselless  
University of Haifa

Spirituality, which is associated with the human motivation and potential to experience connection with the sacred and divine, is a common aspect of nature experience and has been the subject of many studies. But the profound benevolent effect of experiencing spirituality in nature in therapeutic contexts has yet to be empirically demonstrated. This article focuses on the therapeutic effect of experiencing spirituality in nature from the perspective of nature-based therapists. Spirituality emerged as a central theme in a larger study designed to develop a model of nature-based therapy (NBT), which is currently lacking in the field. Grounded theory methodology was applied, and data included in-depth interviews with 26 experienced nature-based therapists worldwide and field observations of 6 NBT workshops. Within the NBT context, spirituality emerged as involving an actual and tangible experience of the spiritual in physical form—nature as an embodiment of spirituality. The findings link this form of spiritual experience to significant therapeutic effects, including the experience of nature's immensity, which contributes to an expansive perspective; experiencing interconnectiveness, which elicits a sense of belonging to the vast web of life; and the reflection of internal nature and truth by external nature as an accepting setting, which contributes to the discovery of an authentic self. These results are discussed in consideration of current perspectives on the psychology of spirituality, which further our understanding of the therapeutic effects of spirituality that may be evoked and implemented through nature. The practical and clinical implementations of spiritual connection through nature in therapeutic frameworks are discussed.

*Keywords:* spirituality, nature, nature-based therapy, spirituality in psychotherapy, self-discovery

This article is part of the current surge in discussions and research of spirituality in psychology (Miller, 2015; Pargament, 2007; Pargament, Mahoney, Shafranske, Exline, & Jones 2013). It specifically focuses on nature as a therapeutic spiritual resource. The natural environment offers various opportunities to experience the mysterious and ultimate aspects of existence, commonly described as the sacred, transcendental, and spiritual dimensions of life (Pargament, 2007). These qualities are experi-

enced in nature through boundless and beautiful landscapes, the powerful forces of nature, and extraordinary forms of life (Ashley, 2007). Although common to nature experience, the potential beneficial effect of experiencing spirituality in nature has yet to be studied empirically in therapeutic contexts. This article addresses this lacuna by focusing on the potential therapeutic value and outcomes of experiencing spirituality in nature investigated in our study from the perspective of the nature-based practitioner/facilitator. Grounded theory (GT) was chosen as a well-established methodology among counseling and psychotherapy researchers implemented to form a general framework when existing theories do not adequately capture the complexity of the issue under research, as in the present case (Charmaz, 2014). This qualitative method of inquiry emphasizes the construction of theories through an inductive analysis

---

This article was published Online First July 25, 2019.

Lia Naor and Ofra Mayselless, Faculty of Education, Department of Counseling and Human Development, University of Haifa.

Correspondence concerning this article should be addressed to Lia Naor, Faculty of Education, University of Haifa, 199 Abba Khoushy Avenue, Haifa 3498838, Israel. E-mail: [liawaysofknowing@gmail.com](mailto:liawaysofknowing@gmail.com)

grounded in the data (Strauss & Corbin, 1994). Data included in-depth interviews conducted with 26 nature-based therapists/facilitators with different professional backgrounds from five countries and field observations of six nature-based workshops.

## Literature Review

### Nature-Based Therapies

Nature is conceived of as “one of the most basically important ingredients of human psychological existence” (Searles, 1960, p. 27), a notion supported by an extensive and growing body of research linking connection with the natural environment to healthy development and overall well-being (e.g., Gatersleben, 2008; Herzog, Maguire, & Nebel, 2003; Kaplan, 2001). Contact with the natural environment, even when viewed through a window, has been studied as a corrective or remedial measure to counteract stress and anxiety or to aid in recovery from illness (Herzog et al., 2003; Kaplan, 2001; Ulrich, 1993). Compared with urban environments, natural settings are better able to renew depleted psychological resources (Richards, Carpenter, & Harper, 2011) and have been well-documented for their relaxing, healing, and restorative benefits (Kaplan, 2001). Contact with nature is now recognized as positively affecting cognitive, attentional, emotional, spiritual, and subjective well-being among normal populations (see Frumkin, 2001, for a summary of nature’s physiological and psychological benefits). Such vast evidence has led scholars to suggest that nature may be “one of our most vital health resources” (Maller, Townsend, Pryor, Brown, & St. Leger, 2006, p. 52).

Nature-based therapy (NBT) is one way by which the unique connection between humans and nature is harnessed to help people heal, develop, and thrive—physically, psychologically, and spiritually (Berger, 2016; Burls, 2005; Burns, 1998; Clinebell, 1996; Naor, 2017). From the perspective of NBT, health and full development involve more than the individual’s relationship with self and others; they encompass a connection with the natural environment embraced as part of the psychotherapeutic process (Richards et al., 2011). Connection with nature is cultivated in the psychotherapeutic context in various ways. In wilderness therapy,

interventions, often with troubled youth, usually include several days of journeying in nature while learning social and coping skills. In adventure therapy, interventions involve experiences that require going beyond perceived limits, as in rock climbing, which enhances empowerment and self-discovery. Nature therapy and ecotherapy are more common alternatives to traditional psychotherapy conducted in nearby nature as in hourly sessions in a park where nature, is implemented as a live uncontrollable setting providing symbolic, physical, and sensory material to work with therapeutically (Naor & Mayseless, 2017). Many studies have documented the positive effects of nature-based interventions in enhancing, for example, self-concept and social attitudes, physical health, and behavior and in reducing emotional problems, recidivism, and trait anxiety (Gass, Gillis, & Russell, 2012).

NBT is gaining popularity and credence specifically in the modern era as a response to Western culture as characterized by a separation from nature (Doherty, 2016). Several scholars and practitioners of NBT have underscored the significance of spiritual experiences in the therapeutic processes involved in NBT (Berger, 2016; Clinebell, 1996; Totton, 2014).

However, currently, notions and accounts of spirituality in nature, specifically in a therapeutic context, lack rigorous empirical support and a conceptual model. To better understand the extant literature on spirituality in nature and various accounts of spirituality in the therapeutic context of NBT, a brief delineation of common perspectives on what psychologists mean when discussing spirituality or spiritual experiences is called for.

### Current Perspectives on the Psychology of Spirituality

Discourse on spirituality in the psychological context has generated various perspectives. For example, Pargament (1999) defined *spirituality* as the search for the sacred, namely, the human motivation to discover and connect with the sacred. The term *sacred* refers not only to concepts of higher powers and God but also to significant objects and/or relationships that take on spiritual character and meaning by virtue of their association with the divine (Pargament & Mahoney, 2005). Pargament et al. (2013) pro-

vides a general conceptual framework for understanding spirituality resting on the assumption that people are motivated to discover something sacred in their lives, hold on to or conserve a relationship with the sacred, and, when necessary, transform their understanding of the sacred.

Other scholars underscore the centrality of meaning in these processes, referring to spirituality as involving the human desire to find meaning within the reality of their own mortality (Piedmont, 1999). For many people, religious and spiritual beliefs are at the core of their meaning systems, informing their beliefs about self and the world (Park, Edmondson, & Hale-Smith, 2013). From this perspective, spiritual and religious belief structures are held as one of the most common and comprehensive meaning frameworks that helps people make sense of their lives and experiences by sustaining a sense of higher purpose and direction while maintaining a sense of sacredness and value (Pargament & Cummings, 2010). Researchers and professionals have shown how these frameworks are incorporated to help individuals cope and derive meaning, especially in stressful circumstances (Aldwin, 2007; Davis et al., 2018), although they may also engender conflicts and struggles (Pargament et al., 2013).

For many, this process will involve a meaningful connection with something greater, beyond ourselves (e.g., relationships with others, the transcendent, nature, or the universe), (Steinhauser et al., 2017). Miller (2015) underscored the importance of this notion, defining spirituality as a human, inborn perceptual and intellectual faculty allowing us to feel (or not feel) part of something larger. According to Miller, this nonverbal dimension of knowing may be developed through experiencing a relationship with a guiding, and ultimately loving, higher power (e.g., God, nature, spirit, the universe, the creator, etc.).

From a relational perspective (Mahoney, 2013), “spirituality involves the person’s search for a sense of meaning by actualizing fulfilling relationships between oneself, other people, the encompassing universe, and the ontological ground of existence” (Canda, 1990, p. 13). Conceptual analyses and qualitative research support these notions, emphasizing the significance of connectedness as central to spirituality whereby spirituality may be perceived as the

way humans actualize the universal human yearning and potential to experience deep connection with self, others, nature, and the transcendent (De Jager Meezenbroek et al., 2012).

These perspectives underscore the centrality of the experience of sacredness and something greater than oneself in spirituality and the sense of meaning, purpose, and acceptance, as well as connectedness, which are often associated with them. Notwithstanding the difficulty of spiritual struggles (Pargament et al., 2013), a large number of studies (i.e., over 3,000 empirical studies and dozens of meta-analyses) link spirituality to a variety of favorable physical and mental health benefits (Baumeister, 2002; Koenig, McCullough, & Larson, 2001; Sperry & Shafranske, 2004). Spirituality is thus understood as a human resource by which meaning can be discovered, healthy coping can be enhanced, and human suffering might be alleviated (Piedmont & Leach, 2002). These perspectives reveal the centrality of spirituality as a significant human aspect, organizing principle, or perceptual framework by which the human motivation and potential for meaning, purpose, and connection with the sacred and divine are actualized. One avenue by which this human faculty may be experienced and developed is through nature.

### Spirituality in Nature

Extensive research in the field of wilderness recreation points to spirituality as a common and significant construct of nature experience (Ashley, 2007; Foster & Borrie, 2011; Heintzman, 2003, 2009; Schmidt & Little, 2007). Whether through the landscape itself or the type of activity, nature’s immensity and grandeur seem to elicit a relatively unique emotional and spiritual or self-transcendent experience (Ashley, 2007). These experiences may be brief, as in a fleeting moment of awe and wonderment in the face of nature’s power and beauty (Stringer & McAvoy, 1992), or long-lasting, leading to major self and life transformations (Naor & Mayseless, 2017).

Although common to wilderness experience, spirituality in nature is an elusive concept, involving an extraordinary dimension of being that is intangible, extrarational, ineffable, and usually defiant of scientific or “common-sense” explanations (McDonald, Wearing, & Ponting, 2009). Scholars and researchers have shed some

light on it by identifying the characteristics, outcomes, and effects of this unique spirituality (Ashley, 2007; Heintzman, 2009).

McDonald and Schreyer's (1991) critical synthesis of empirical studies related to the spiritual benefits of leisure emphasized the unique combination of sensory awareness and extreme states of consciousness elicited in the wilderness leading to spiritual experience and outcome. Sensory enhancement as a common characteristic of nature experience intensified through deep immersion in wilderness and challenging physical activities is supported by various studies involving canoeing (Foster & Borrie, 2011), hiking (Stringer & McAvoy, 1992), rock climbing (Shostak-Kinker, 2012), and solitude (Williams & Harvey, 2001). These studies emphasize the significance of experiencing deep absorption in the moment and a sense of timelessness and spacelessness resulting in what was described as the dissolving of boundaries between the self and the world and was found to be transformative in many cases (Terhaar, 2009). In fact, nature is the most common trigger for peak and transcendent experiences characterized by a deep feeling of connection and unity (McDonald et al., 2009; Naor & Mayseless, 2017).

Additional studies attribute the experience of spirituality in nature to the unique and powerful facets of the natural environment; for example, the perspective afforded from the mountain summit (Rossler, 2003), the vastness of deserts and the power of raging rivers, thunderstorms, and water in all its guises (Taylor & Geffen, 2003). These studies link the aesthetics, views, and landform diversity of nature to a "sense of wonder, humility, and connectedness, all promoting 'transcendent states'" (Fox, 1997, p. 456).

While these studies focus on the significance of activities or characteristics of the natural environment, other studies link spirituality in nature to the time and space for deep reflection and contemplation on the meaning and purpose of life (perceived as an aspect of human spirituality; Bobilya, Akey, & Mitchell, 2011; Heintzman, 2009; McDonald et al., 2009; Stringer & McAvoy, 1992). Foster and Borrie (2011) found that in nature, far from everyday routine, social constraints, technology, and daily duties, one has "the time and space to re-connect with others and with the greater cre-

ation" (p. 7). This allows a focus on spirituality (Heintzman, 2003, 2009) and the sacredness of life (McDonald et al., 2009), which enhances one's ability to "commune" with God (Bobilya et al., 2011).

Taken together, this body of research supports the defining characteristics of spirituality in nature delineated in Ashley's (2007) encompassing work on the topic, which includes

a feeling of connection and interrelationship with other people and nature; a heightened sense of awareness and elevated consciousness beyond the everyday and corporeal world; cognitive and affective dimensions of human understandings embracing peace, tranquility, harmony, happiness, awe, wonder, and humbleness; and the opportunity to connect with and relate to divine godly aspects of existence. (p. 65)

### Spirituality in NBTs

As of now, researchers and practitioners have described spirituality in nature in therapeutic contexts only sporadically (Berger, 2016; Totton, 2014). Spirituality is not a common or conventional topic in professional discourse in the field of nature-based therapies and has been discussed mostly by practitioners sharing their personal views and experiences. For example, nature therapist Ronen Berger (2016) relates to spirituality in nature as feeling part of the natural cycle of life. He provides a clinical example of Sharon, who felt that perceiving her personal loss in relation to the natural cycle of life mirrored by wilting flowers was a healing experience. Nick Totton (2014), an acknowledged ecotherapist, described spirituality in nature as the experience of the depth of our existence. Approaching rivers and lakes, the sea, mountains, winds, sun, sky, and stars with therapeutic awareness reminds us of how small we are in the face of the universe. Totton also stressed the sense of being accepted unconditionally in nature as therapeutic and provided an example of a client who claimed, "I have never felt more accepted than I did by the oak tree" (p. 2).

Beringer (2000) stressed "the sacred" as fundamental to spirituality in nature, enhanced by the intent, attitude, and receptive consciousness of the therapist who makes the connection to the sacred. In his conceptual analysis of the lived experience of spirituality in nature, Beringer provided the example of canoeing as an activity that may elicit unifying/spiritual connection with others and nature when intended as such by

the therapist. However, Beringer did not describe how this intent and attitude are implemented to enhance sacredness.

Currently, there are only a few empirical studies focusing on spirituality in nature within the therapeutic context of NBT. For example, Rothwell's (2008) unpublished thesis focused on spirituality as part of wilderness therapy. The researcher interviewed 12 wilderness therapy staff members who had a spiritual or religious background. Research results led the researcher to conclude that spirituality is a function of wilderness therapy attributed to the facilitator's personal belief and interventions that involve working intimately with nature, which facilitated opportunities for students to have spiritual experiences and to grow therapeutically. An additional study is Sahlin's (2016) qualitative research conducted among 35 participants at the end of rehabilitation at a nature-based rehabilitation center in Sweden. In this context, guided nature walks were implemented, eliciting frequent spiritual and religious reflections about being a part of "something bigger" and perceptions by participants of nature as a resource to develop spiritual growth.

More thorough and systematic empirical research is needed to have a clearer picture of how spirituality experienced in nature may have therapeutic value and benevolent therapeutic outcomes. Thus, the objective of the present study is to better understand the role of spirituality in nature in the therapeutic process. The findings presented here are part of a larger study designed to develop a working conceptual model of NBT currently lacking in the field. Data were collected by interviews conducted with a variety of NBT practitioners/facilitators and observations of group, guided, NBT workshops. As part of data analyses, a major theme emerged: the centrality of spirituality in nature in the therapeutic process. The research objective and research question of the present study grew out of this insight. Thus, the research question was, "What are the therapeutic aspects of spirituality as experienced in nature that lead to beneficial outcomes in NBT as enacted and perceived by nature-based therapists?"

### Method

Grounded theory (GT) was chosen as a well-established methodology among counseling and

psychotherapy researchers implemented to form a general theory when existing theories do not adequately capture the complexity of the issue under research, as in the present case (Charmaz, 2014). Glaser and Strauss (1967) introduced grounded theory aiming to move qualitative inquiry beyond descriptive studies into a realm of explanatory theoretical frameworks. These theories are constructed through an inductive analysis "grounded" in the data (Strauss & Corbin, 1994). In congruence with constructivist grounded theory, various examples and accounts are analyzed by emphasizing general patterns, relationships, and processes with the intent to form a general conceptualization (Charmaz, 2014). By utilizing the basic principles of GT involving comprehensive assessment of the data beyond specific examples, an overall understanding regarding spirituality in nature in the therapeutic context emerged (Glaser & Strauss, 1967).

### Researchers' Background

The first author, the researcher who conducted the study, is a nature guide and licensed therapist who began working in nature and forging her professional identity when NBT was not common or accepted in psychotherapy in Europe. The search for further knowledge and professional development instigated her academic career and research focusing on the therapeutic process of development and change occurring in the natural setting. The second author is a seasoned researcher on human development and is interested in using qualitative research methods.

### Participants and Procedure

The participants in this study were 26 adults—16 men and 10 women, ranging in age from 34 to 75 years old, from England, North America, Spain, Germany, Italy, and Israel—who facilitate nature-based processes of therapeutic value in independent practice and well-established programs. Theoretical sampling guided the procedure; therefore, participants with expertise and many years of experience were chosen from various practices (e.g., adventure and wilderness therapy, ecotherapy, and expressive arts therapy). Coming from different professional backgrounds, the research participants have different levels of training and cer-

tification. Although the majority of participants are certified therapists (18 of the 26 participants), all the research participants emphasized the therapeutic value of the processes they facilitate. The range of professional backgrounds and approaches encompassing multiple perspectives contributed to a rich and complex understanding of spirituality in nature therapy beyond the individual cases. See [Table 1](#) for personal details and professional background of the participants; we used pseudonyms to protect the participants' identities.

Following the approval of the University of Haifa's board and ethics committee and participants' informed consent, in-depth, semistructured interviews were conducted with each participant by the first author, who collected all the data. Prior to each interview, the aims of the study and the interviewee's rights were clarified. Each interview lasted between 1.5 hr and 2.5 hr, and interviews were audiotaped and transcribed verbatim. The interviewer approached each participant as holding significant knowledge that could contribute to understanding the therapeutic value of spirituality as an aspect of NBT. Participants were eager to share their experience and knowledge that in most cases had not yet been conceptualized. The final sample size was determined by the saturation principle; namely, data were collected and analyzed until no new themes emerged ([Padgett, 2016](#)).

Detailed accounts of field observations were taken by the first author who participated in six different programs in the wilderness in Europe, America, and Israel. Observation and participation in the therapeutic process within the natural setting of its occurrence enabled an additional perspective of the context and phenomenon under study ([Kawulich, 2005](#)). These observations were implemented with sensitivity and involved extensive field notes, casual documented discussions with participants, and memo writing.

## Data Analysis

Analysis of data involved the basic components of GT: simultaneous involvement in data collection and analysis; construction of analytic codes and categories from data, not from pre-conceived logically deducted hypotheses; the use of constant comparative methods during the whole analysis; and theory development during each stage of the data collection and analysis. In

keeping with GT's maxim of "all is data," relevant literature, case studies, written accounts, and empirical and theoretical publications were simultaneously gathered and woven into the emerging data.

Analysis of data was a spiral process that began with deep immersion in the data by reading the transcripts in detail. Once meaning units emerged, they were highlighted and identified by line-by-line coding (e.g., [Charmaz, 2008](#)). Assessing the meaning of these codes and the context in which they were relayed enabled further conceptualization. Gradually, specific themes emerged that were then clustered as units of meaning reflecting a higher level of abstraction ([Smith & Osborn, 2003](#)). In this study, an unknown construct of the therapeutic process in nature that participants found hard to articulate (defined by participants as, e.g., the unknown, something we do not understand) emerged as a common theme in initial analysis. Gradually additional codes and terms emerged that were connected to this unknown but seminal aspect of NBT. Thorough assessment of these concepts in relation to the context in which they were relayed revealed the construct of spirituality as a general theme encompassing various codes and definitions connected by context.

The second stage of analysis involved assessing research data relative to the vast body of theoretical and empirical evidence regarding spirituality in nature. This comparative method involves the "weaving of two major threads in the fabric of grounded theory; generalizable theoretical statements with contextual analyses of actions and events" ([Charmaz, 2008](#), p. 18). By working back and forth between the emerging themes, the database, extant literature, and the first author's reflexivity, theoretical categories "grounded" by evidence emerged ([Lee, Saunders, & Goulding, 2005](#)). The final stage involved assessing these categories beyond specific accounts to reveal general structures, connections, and interrelations assessed constantly in relevance to theory to gain a generalization of concepts ([Strauss & Corbin, 1994](#)). This process led to a general conceptualization regarding spirituality in nature in the therapeutic context.

Ethical standards regarding quality and trustworthiness were ensured by collecting data from multiple sources ([Morrow & Smith, 2000](#))

**Table 1**  
*Background Information on Participants*

Pseudonym	Country	Gender	Age in years	Years of practice	Type of nature-based therapy practiced	Populations of interest
Dana	United States	Female	64	31	Teaching and mentoring wilderness therapy in higher education institution	Groups and individuals, both privately and with students, as well as with clinical populations
Sarah	United States	Female	39	20	Psychologist	Nonclinical populations in group processes and privately, mostly with children
Devin	United States	Male	54	21	Wilderness guide	Nonclinical populations in group processes and private mentoring
Samantha	United States	Female	52	19	Wilderness guide with a professional background in education	Nonclinical populations in group processes and private mentoring
Rachel	United States	Female	36	10	Wilderness therapy transpersonal psychologist	Works in private practice with groups of youth and adults with addictions
Eva	United States	Female	34	12	Wilderness therapist	Works with groups of troubled youth and has a private practice working with adults
Arman Ali	Israel Israel	Male Female	40 55	15 9	Clinical psychologist, nature therapist Ecotherapy, art therapy	Private practice and group training in the field Private practice, working with groups in psychiatric ward and group workshops with students training in the field
Lory	Israel	Female	45	20	Nature therapist, social worker	Private practice, facilitating group processes among nonclinical populations and students training in the field
Dominic Ron	Israel Israel	Male Male	47 45	15 16	Adventure therapy Nature therapist, with academic background in social work and drama therapy	Trains students in adventure therapy Private practice and professional training in groups
David	Israel	Male	67	35	Wilderness guide	Facilitates groups of troubled youth and trains students as field facilitators in educational group processes
Dan	Israel	Male	64	11	Wilderness guide Specialized in special education	Facilitates groups of troubled youth
Michaela	United States	Female	52	10	Wilderness guide specialized in somatic psychotherapy	Nonclinical populations in group processes and private mentoring
Alex	Israel	Male	34	8	Social worker, wilderness therapist	Facilitates journeys for troubled youth and has a private practice
Tim Tony	Israel Israel	Male Male	41 56	10 23	Nature therapist Shaman	Trains students in Ecotherapy Teaches nature-based shamanism and has a private practice
Ben	Israel	Male	60	27	Wilderness guide with academic background in education	Trains groups of educators in weekly sessions to work with nature
Mike	United States	Male	43	18	Wilderness guide specializing in nature-based coaching with academic background in education	Trains individuals and groups in nature-based coaching and primitive skills as a way to know self and the world

This document is copyrighted by the American Psychological Association or one of its allied publishers. This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

Table 1 (continued)

Pseudonym	Country	Gender	Age in years	Years of practice	Type of nature-based therapy practiced	Populations of interest
Greg	Spain	Male	39	10	Adventure therapy, clinical psychology	Works with youth through lengthy journeys with youth from both clinical and nonclinical populations
Stan	Israel	Male	33	7	Wilderness therapist, social worker	Works with troubled youth in groups in lengthy journeys in the desert and with groups from the general population in multicultural contexts seeking to interconnect
Paul	United States	Male	73	36	Clinical psychologist, wilderness guide	Works with groups from the general population in weekly workshops and has a private practice
Corrie	England	Female	62	27	Psychotherapist, wilderness guide	Works with groups and students from the general population training in the field by weekly Ecotherapy workshops
Ervin	Germany	Male	35	7	Academic professor and researcher, psychotherapist, music therapist	Works with clinical populations of children in groups and individually integrating music and creation in nature
Kelly	United States	Female	40	5	Mental health counselor	Works with groups and individuals from the general population integrating shamanic work in therapeutic sessions
Itai	Israel	Male	37	12	Nature therapist and social worker with academic specialization in education	Facilitates groups of troubled youth and trains students as field facilitators in educational group processes



and by providing rich and detailed accounts showing a visible connection between analytical findings and the data from which they were derived, to ensure creditability (Jones, 2002). Because of the first author's expertise in the field of study, trustworthiness was specifically ensured by *bracketing*, a term used to describe the process by which the researcher is aware of personal assumptions and predispositions, which were set aside to avoid undue influence on the research (Morrow & Smith, 2000). Bracketing was used when attempting to conduct the interviews with openness and curiosity, perceiving the participants as holding significant knowledge and trying to listen to what they shared without judging, categorizing, or analyzing. In this way, spirituality in nature was treated as a phenomenon to be understood through the context, interpretation, and meaning given by the research participants. Therefore, personal thoughts, perspectives, expectations, and preconceived insights were bracketed, that is written down as memos or side notes that were discussed later with colleagues and the second author. This enabled the researcher to listen to the interviewees as openly as possible so that the analysis and meaning derived was not driven by personal ideas at the expense of what was originally communicated.

Coming from the field enabled the first author to gain the participants' trust and collaboration in a project that had mutual significance. Although shared respect and understanding of processes and concepts discussed enabled deep and open rapport in a relatively short time, several measures were taken to avoid possible bias in the interview phase as well as in the data analysis phase. To address these challenges and to ensure the validity of the results, themes and interpretations were grounded in direct quotes from the data (Stiles, 1993); the emerging themes underwent cross-checking by the second author and colleagues, none of whom had personal experience in this area, enhancing reliability of the different themes and their implications; and the first author engaged in extensive memo writing by which observations, thoughts and ideas were processed and reflected on. The fact that the results reported in this study were surprising to the first author and were not referred to or sought as such in the initial research design strengthens the creditability of the research results.

## Findings

The therapeutic value of spirituality in nature as presented here is a central theme that emerged in the larger study conducted to develop a working model for NBT currently lacking in the field. Spirituality was not a topic that we initially attended to in the structured interview, but it emerged as a seminal, though unknown, aspect of the therapeutic process in nature, as described in the following extract by Ervin, one of our research participants.

Sometimes nature is doing something so great in a very specific moment, but you cannot explain, it goes beyond what we actually can sense or hear. Maybe there's some kind of spirituality or transcendence, and I dare whether it will ever be possible for humans to explain what's going on.

Although seemingly unknown and mysterious, this aspect was related by one participant as "the biggest piece" of the therapeutic process and outcome. Rigorous assessment of these concepts evaluated in the context they were discussed led us to define these aspects by the encompassing term *spirituality*, illuminated as a unique and key construct in NBT. Although not always referred to explicitly, the various terms used by participants relaying the ineffable and unknown were understood as reflecting a central construct in NBT—namely spirituality. Twelve of the 26 participants explicitly used the term *spirituality* to describe the unique quality in NBT attributed to its profound effect, and others used terms such as *mystery*, *magic*, or *transpersonal*. These terms were used by the participants when attempting to describe a salient and common notion having to do with the human connection to a much larger interconnected existence that we can relate to and belong to that is experienced and acknowledged through nature. This notion was also referred to frequently by participants as experiencing a connection with the force of life ( $n = 3$ ), the sacred ( $n = 3$ ), cycles of nature ( $n = 5$ ), growth instinct ( $n = 1$ ), and interconnectedness of life ( $n = 10$ ). The therapeutic significance of experiencing spirituality in nature in the context of NBT is expressed by four themes. The first illuminates the unique way nature is experienced as an embodiment of spirituality; the others reveal specific qualities of experiencing embodied spirituality

linked to significant therapeutic effects and outcomes.

**Theme 1: Nature is an embodiment of the spiritual.** What is so unique about experiencing spirituality in nature is that the ineffable and spiritual aspects of existence are embodied and experienced in physical and sensual form. This notion was discussed by 17 of the 26 participants, emphasizing the unique way by which spirituality is actually and physically experienced in nature. Dan described the actual sensory feeling.

Spirituality involves what is beyond human and ultimate and we can actually feel it in certain situations . . . in the air, on our body . . . like in the feeling in the star light night in the desert.

Rachel described this quality as what we are naturally awed by.

There's just something powerful about watching the clouds go around the sky, it's amazing . . . the things that you're in awe by, and even if you're an atheist and you do not believe it . . . everyone can find god or spirituality in nature.

Ali described the embodied experience of connecting to the cycles of nature.

Experiencing the cycles of nature . . . it's stronger than me . . . it's bigger than me and it deepens our work . . . so when I take the patients out of the psychiatric ward and they feel the sun and see the leaves falling . . . it connects them to the process like physically in a sensory way and they actually feel the infinite.

For me it feels like this amazing sense of the presence everywhere, expressed in unique ways in like a tree or a blade of grass. (Kelly's description)

Arman provided an example of how embodied spirituality is incorporated specifically in the therapeutic process.

She started to collect flowers for a birthday bouquet and I saw something I never saw before . . . the earth started to move right under the plant and pulled it under, it just disappeared . . . maybe a rodent pulled it . . . but I said "it's a magic show in honor of your birthday!" . . . In synchronicity there is something very spiritual, as in anything that lets you feel that your story is in sync with all the other stories in the world.

Synchronicity is common in the symbolic environment of nature and was common in the nature-based workshops the first author attended. This spiritual form of expression was experienced when a butterfly passed by just when a woman was speaking about her deceased mother, which she related to as a sign

from her. In another workshop, a young woman was grieving her sixth miscarriage and to her surprise happened to sit under a tree next to a fallen nest with broken eggs on the ground.

Experiencing the mysterious and awe-inspiring aspects of existence in physical, sensory form through nature is defined here as the embodiment of spirituality, a form of spiritual connection that is a core element of NBT that is integrated intentionally in the therapeutic process. Michaela described how she facilitates this spiritual connection by actually conversing with various aspects of existence embodied by nature.

I help facilitate a very intimate conversation between an individual and the mysteries of nature, and the mysteries of their own psyches . . . and actually to be in a really radical conversation with whatever comes to converse with them, radical like we will be changed by that, and we will become more deeply human, more deeply authentic.

The findings of this study reveal the significance of embodied spirituality in nature relating to three distinct therapeutic outcomes: experiences of nature's immensity that lead to expanded consciousness (world- and self-view), experience of interconnectedness eliciting a sense of belonging in the world, and external nature reflecting internal nature and truth, as a means to discovery of authentic self and soul. These themes are deeply interrelated, and, in most cases, they overlap in meaning and effect, but they are categorized separately in the following text.

**Theme 2: Experiencing the immensity of the natural environment expands personal perspective.** The majority of participants (20 of 26 participants) spoke about experiencing the immensity of nature as a significant aspect enabling clients to experience a connection to "something other than human," "a higher power" that draws one to a wider perspective. Participants described the immensity of nature as not only expanding visual perspective but also affecting personal perspectives on life. This notion was described by participants as holding the bigger picture, the larger context, a shift in perspective, consciousness shift, and expansiveness. Personal stories and problems viewed in wider context may be minimized when seen as part of something larger and may inform the individual of a bigger plan or life mission. This expanded perception is described as a shift from

a personal perspective to a more expansive unified consciousness.

Connecting to the earth helps people connect to something really big . . . a transpersonal piece of connecting to something other than the human . . . for me the wilderness is a higher power . . . being in the wilderness reminds me that there's so much more going on than just my own small stupid issues . . . it does make you feel small but . . . in a really comforting way, it makes your problems feel smaller . . . it puts [life] in perspective. (Rachel's description)

You're just up in Estes Park, and it's huge and it makes you realize, like I'm just a little piece of this enormous thing, and that scale is very important . . . because we can get so wrapped up with our own dramas and then we're like oh, and it puts it in perspective. (Eva's description)

Corrie referred to this notion in describing nature as pulling one toward the wider picture.

So I think there is a natural pull from nature - a tendency toward the bigger picture . . . people look up at the stars, at the sunset, or the trees, and somehow it pulls them into a bigger picture, to embrace a bigger perspective of life . . . there are practical things we can do to help them look and think wider . . . like taking them to beautiful and inspiring places - they will naturally be drawn out of themselves, or drawing attention to kind of amazing fascinating things in their own environment. That can also pull them out of their preconceptions. And I think anything that interrupts the assumptions that people carry, is going to be therapeutic.

Experiencing our personal story in perspective to the larger story of life was implemented in a workshop attended in California. One day we were invited to focus on a personal, painful issue by finding a place in nature that mirrored it and having a dialogue with the place. Sarah, who had just gone through a divorce and felt scared and vulnerable about starting life over with two small children, came back after a few hours in nature and told us about her dialogue with barren trees that had surrendered their leaves, flowers, and fruit. She became aware of the natural cycle of life in which the trees let go of their fruit so that seeds will be planted, eventually bringing new life, and thus felt assured and comforted that the painful time she was experiencing was just a stage in her life and could result in new opportunities.

This notion is supported by Ron, who described the wider context as the secret of NBT.

Nature offers the wide perspective and proportion . . . the combination between my personal time . . . story . . . pain . . . and this great eternity, and the unknown

. . . the transition between life and death occurring every day in nature and life goes on . . . so maybe my own pain . . . it's only a moment in my life. This puts everything in a very different perspective. I think that's the secret of nature therapy.

**Theme 3: Interconnectedness involves the experience of deeply belonging.** Twenty-five of the 26 participants spoke of deep connections between us humans and the larger world as seminal in the therapeutic process, specifically as a way by which the individual may experience a deep unconditional belonging to the world. *Interconnectedness* was described as being aware of how we are not separate from nature, allowing us to view everything in nature as sentient, relating and connecting with everything else. When we recognize and relate to this, we begin to accept ourselves as part of this interconnected world and our participation and belonging gain meaning and purpose.

Samantha emphasized interconnectedness as involving an evolutionary way of relating.

We are very self-centered . . . but in nature there's something in us much deeper than our strategic mind that knows about interconnected relationships that is evolutionary linked with other beings . . . the possibility that human beings are not the only ones that are consciously relating with everything else . . . so it's a way of beginning to relate with the world as if all the wild others are aware of me and of each other and are not objects but actually sentient and alive . . . and it would be possible for me to feel and sense my own place of belonging.

Belonging in this way was described by Eva as a "knowing."

Every human being is designed to participate with nature, humans and the more than human world as an animate soul community of others . . . and in a particular way to belong, this is the foundation of what we are as human beings, it's more than personal, it's at a species level . . . knowing that we are of the earth, of this place, that we belong, no matter what happens in our family or relationships, and that is incredibly healing.

It is through these experiences in NBT that one gains an experiential knowing of how we are connected with nature and the bigger world, as was described by Dana:

Our interconnectedness with nature . . . We just know it, because of our experiences, and as a wilderness therapist part of my job is going to be hearing those pieces around relationship with nature and inviting those in as the content . . . by connecting with a semantic emotional spiritual aspect of ourselves, and

connecting with other people and the natural world, we have some sense of how we are part of the bigger web.

Mike developed the human potential to know our connection to nature by teaching outdoor skills, which instill what he referred to as “knowledge of place.”

I create a basic bundle of natural skills, which is immediately empowering, cause you develop a knowledge of place, and you experience a deep sense of belonging, an awareness of your role within the ecosystem . . . a sense of purpose, you . . . start to see yourself as a caretaker of that area and it becomes like home.

These experiences illuminate a unique, transcendental sense of belonging that Greg referred to as “feeling at home.”

In nature, the kids feel belonging to a bigger thing . . . not somebody, but something, not only family, or culture but something I cannot explain . . . like I’m part of all this . . . more transcendental . . . they say that they really feel at home in nature.

**Theme 4: Nature reflects inner aspects and provides unconditional acceptance inspiring a discovery of self.** When we perceive ourselves as part of nature, we perceive specific occurrences and elements in nature as reflecting relevant personal information. The participants described this as a unique mirroring, reflecting, echo, or vibration occurring in nature evoking a unique discovery process allowing us a knowing of who we are. Twenty-one of the 26 participants gave lengthy examples of the way aspects of self are reflected through elements and situations in nature. What is profound about this internal—external reflection is that what is being mirrored or reflected through nature are aspects of inner truth and soul experienced as extraordinary.

Sarah described a multifaceted reflection, which is easier to accept when mirrored by nature.

Nature is a mirror for us . . . a mirror for physical nature, psychological nature, our spiritual nature, mental nature. And so, what’s really neat about getting people out into nature . . . they can start to open their eyes to how nature reflects themselves, they’re able to find wisdom in learning and acceptance.

Devin reflected on what is mirrored, describing it as something deep about one’s soul.

There might be a mirroring in a . . . sort of direct way and sometimes mysterious way . . . like an experience

where nature speaks to them and it’s about you getting glimpses of your own soul.

Participants described what is discovered as a personification of that part that we do not know about yet, soul, truth, vitality, transpersonal existence, wisdom, the divine, or what I really am. In this way, what is being mirrored or discovered through nature is profound, for it goes beyond aspects of our persona, revealing our authentic and inner truth.

Ron referred to this as a transpersonal existence (“I do not know if it’s my inner wisdom or wisdom in nature that is revealed . . . but it’s a more transpersonal, spiritual or existential existence that is experienced”), whereas Dan described what is discovered as the divine within (“I enable the place in which these kids can discover themselves as people, as part of nature and see god in them and in others and to be happy about that and not afraid”).

Kelly referred to the discovery of a core self, attributed to the accepting environment.

Finally when you get to the very core of it there’s something there, underneath all the layers that we’re taught to present to society . . . there’s something deep down in everyone. I call it a core self or soul spirit self that people are able to access in nature where they are freer to be who they really are . . . their discovery and honoring of that part of them is ultimately one of the most healing things.

The participants spoke of this discovery process as unique, describing the natural setting as holding, containing, accepting, and unconditional. In this containing environment, true aspects of our identity are more easily accessible. This ultimate acceptance was described as devoid of any conditions—an experience of holding, where our existence does not depend on our actions, emotions, or any social/cultural function. Experiencing unconditional existence was described by Dan as powerful and empowering.

It’s knowing that you can exist - just being present without a cultural, social identity . . . I do not know how to describe it; it’s like an inner knowing . . . the experience of existing without being functional is very, very powerful and empowering.

Arman described this ultimate acceptance as experience of what we long for.

It’s a healthy environment . . . a nonjudgmental space, supporting me and accepting me as I am . . . it really accepts and holds everything . . . that longing for total acceptance that we always wanted.

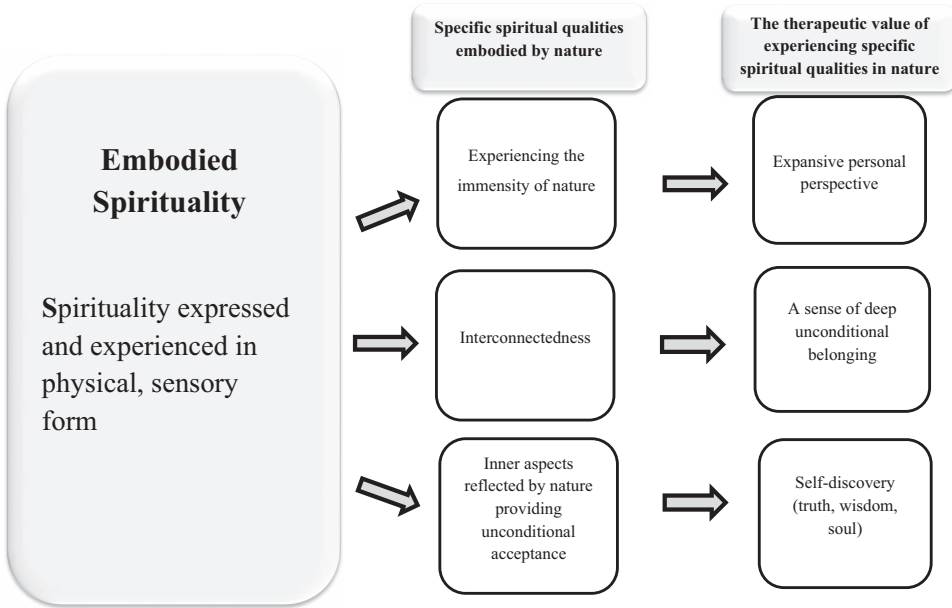


Figure 1. A model of the therapeutic value of spirituality in nature.

Experiencing total acceptance in nature provides a gateway to a deep inner truth and identity beyond social and cultural conditions. From this perspective, nature enables an awareness and connection with an ultimate aspect residing within us described as a core authentic self, spirit, and loving consciousness that may contribute to knowing and living a more authentic and connected identity and life.

The findings of this study reveal the way spirituality is experienced in nature during psychotherapy or in processes that hold significant therapeutic value. Specifically, the findings illuminate how the therapeutic effect of such experiences is derived, as described by nature-based therapists and facilitators. These understandings contributed to the development of a model portraying the therapeutic value of spirituality in nature as shown in Figure 1.

In this model, the main theme of the research, that nature embodies spirituality, which is then experienced in physical and sensory form, is presented as the focal point, central to understanding the therapeutic value of nature spirituality. Such embodied spirituality is manifested in three central specific spiritual qualities. These include: the immensity of nature, interconnectedness, and experiencing inner aspects reflected

by external nature. Each of these spiritual qualities has distinct therapeutic value as shown by the arrows pointing to such value. The therapeutic values include an expanded personal perspective, a deep sense of belonging, and self-discovery. Though the three spiritual qualities are presented as if they are separated, they often interact. Similarly, the three therapeutic qualities may at times be linked to all three spiritual qualities embodied by nature.

## Discussion

The findings shed light on what was previously described as the intangible and unknown aspect of NBT, revealing a unique form of spirituality—an embodiment of the spiritual in nature. Using grounded theory, a model of the therapeutic value of spirituality in nature was uncovered, delineating three significant spiritual qualities embodied by nature that when sensed and experienced can lead to specific therapeutic effects (see Figure 1): experiencing nature's immensity, the interconnectedness of life, and experiencing inner aspects reflected by external nature. A significant contribution of this model is identifying these three core spiritual experiences in nature and their profound therapeutic

potential. The therapeutic outcomes include expanded perspective, a deep sense of belonging, and self-discovery. This model delineates the specific qualities in nature linked to these therapeutic effects that, when acknowledged as such, may be cultivated and integrated in the therapeutic context.

### **Theme 1: Nature Is an Embodiment of the Spiritual**

Previous research has associated spiritual experience with the unique physical and sensory aspects of nature, as in powerful and aesthetic landscapes, physical immersion, and sensory enhancement shown to elicit profound outcomes (Heintzman, 2003, 2009; McDonald & Schreyer, 1991). The findings here take such insights further, exposing and explicating the therapeutic meaning of these experiences. From the perspective of the participants, nature is enabling an explicit, actual, sensual, and tangible relationship with the implicit and the mysterious that comes naturally even without spiritual belief or practice. This specific tangible engagement with the spiritual aspects of existence through nature, conceptualized here as embodied spirituality, is described as pivotal to the therapeutic process.

In contrast to spiritual practices that foster a relationship with the spiritual by elevation or detachment from physical and bodily desires (e.g., training thoughts and breath, meditating without movement, and learning to detach from physical and materialistic comforts), embodied spirituality as illuminated in this study suggests spirituality and expansion of consciousness as attained by deeply connecting with earthy, physical, wild, and sensual experiences. This unique experience connects spirituality, often defined as the ethereal association with or representation of divinity (Pargament & Mahoney, 2005), with an actual, concrete, and physical experience.

Interestingly, such effortless embodied access to spirituality (through nature) supports current conceptions of spirituality as an innate faculty. Miller (2015) stated that in contrast to cognitive, linguistic, and abstract thinking that need time to develop, we are born fully fluent in the capacity for a felt relationship with the transcendent. Our findings support this, showing how this presumed inborn potential is awakened

through embodied experience in nature leading to spiritual awareness and connection.

Three specific constructs (i.e., experiences) of embodied spirituality in nature have been uncovered in the present study, each having profound therapeutic meaning. They are nature's immensity and "greater than" quality, interconnectedness, and nature mirroring truth and authenticity in an ultimate accepting environment. The participants of this study linked these qualities to three specific experiences of profound therapeutic value; expanding personal perspective, a deep sense of belonging, and self-discovery. Although the various qualities and therapeutic values were not always discussed as separate and linear, an explicit connection emerged between specific qualities and therapeutic values. These qualities and values were also discussed as interrelated, for example an expanded perspective was linked to the immensity of nature as well as to the interconnectedness experienced. Therefore, it is important to take into consideration that the distinction made here may overlook additional connections that this article does not encompass.

### **Theme 2: Experiencing the Immensity of the Natural Environment Expands Personal Perspective**

Spirituality has been defined as the universal human desire to connect with some larger, sacred reality beyond ourselves (Piedmont & Leach, 2002; Steinhäuser et al., 2017). Numerous accounts of profound nature experience involve being in awe and feeling elevation in the face of nature's grandeur, immensity, and beauty. These qualities of nature are experienced as embodiment of ultimate aspects of existence (Naor & Mayseless, 2017), leading to profound beneficial effects and outcomes (Shostak-Kinker, 2012). The findings of this study illuminate the therapeutic effect of experiencing these qualities of nature and provide us with some understanding as to why and how these experiences are beneficial.

The therapeutic significance of experiencing the immensity and grandeur of nature lies in the opportunity to shift perspective from a personal to a more expansive perspective on life. Personal circumstances and stories then may be perceived from the larger context of life, providing meaning to life's hardships while eliciting

ing a focus on issues larger than oneself (social and environmental). The connections with that which is greater than us and is eternal and infinite appear to allow a new and more expansive perspective on one's problems and perhaps meaning in life.

Such experiences resonate with psychological notions that emphasize the importance of spirituality as nurturing the human desire to find meaning within the reality of our own mortality (Piedmont, 1999) and provide answers to existential questions about our place and purpose in the big scheme of the world (Pargament & Cummings, 2010). This realization of being part of the general grand and eternal scheme of life is especially useful in stressful circumstances and when dealing with uncertainty, existential questions, and suffering (Aldwin, 2007; Davis et al., 2018).

From this perspective, experiencing the natural environment can be understood as a favorable and highly promising setting by which an expanded perceptual framework may be experienced and applied. Although not specifically defined as such, an extensive body of research focusing on the benefits of nature as a restorative environment supports this notion. In these studies the natural environment is perceived as allowing the time and space for deep reflection and contemplation on meaning and purpose in life and one's place in the overall scheme of things, which in many instances engenders a sense of spirituality and sacredness of life (Bobilya, McAvoy, & Kalisch, 2005; Foster, 2012; Heintzman & Mannell, 2003; McDonald et al., 2009).

### **Theme 3: Interconnectedness Involves the Experience of Deeply Belonging**

Interconnectedness is a common characteristic of nature experience, described as "the feeling of connection, unity, and compassion with all of existence" (Kumar, 2000, p. 46). In the field of ecopsychology, interconnectedness is discussed (mostly from a conceptual perspective) as a key concept of health. Our findings shed light on how interconnectedness is cultivated through actual experience and why this is so important to human health and development. In NBT, interconnectedness is cultivated by relating intimately with nature and its elements as sentient others. In this way, the isolative bound-

aries of a separate self begin to dissolve, and the large interconnected web of life is revealed, as in the McDonald et al. (2009) definition of interconnectedness as involving a mental or emotional awareness of the fundamental interrelationships between a universal force manifested in human and nonhuman life forms.

Siegel (2007) noted the significance of interconnectedness to well-being and that recognizing the reality of interconnection leads to a fundamental shift in our way of living based on concern for the larger world. Research has shown that well-being and happiness are associated with defining our "selves" as part of an interconnected whole (Terhaar, 2009). Interestingly, "feelings of connection to something greater" (also defined as a *spiritual connection*) are delineated by the World Health Organization (2002) as the existential dimensions of health.

Our findings shed light on why interconnectedness is a crucial aspect of health. It is described by the participants as a way of experiencing deep belonging in the world and answering our universal need to belong (Baumeister, 2002). Unlike belonging to a social group, nature offers a new kind of human belonging—to nature and its elements as sentient—and hence to the whole web of life and existence. Kaye (2002) underscored this notion: "We deeply need the humility to know ourselves as the dependent members of a great community of life, and this can indeed be one of the spiritual benefits of a wilderness experience" (p. 3). Such belonging is described as contributing significantly to a life of purpose. Furthermore, such sense of ultimate belonging may lead to taking responsibility to care for and nurture this web of life (Mayseless & Russo-Netzer, 2017; Russo-Netzer & Mayseless, 2017).

From a relational perspective, spirituality involves the human potential to be in connection with self, others, the transcendent, and nature (Steinhauser et al., 2017). Contemporary psychological perspectives of spirituality have stressed the significance of personal relationships by which sacredness and meaning are attained (Mahoney, 2013). Our findings go beyond personal or social relations, emphasizing the therapeutic significance of experiencing interconnectedness in nature as a means by which a deep sense of belonging to the world is elic-

ited. The significance of belonging to a greater whole, not just one's community or congregation, is somewhat new to current discussions in the psychological literature on spirituality, calling for further research so that this important concept may be better understood and cultivated.

#### **Theme 4: Nature Reflects Inner Aspects and Provides Unconditional Acceptance Inspiring a Discovery of the Self**

The findings reveal that when we perceive ourselves as part of nature, we resonate with it. Thus, wandering through nature entails more than the discovery of external elements and landscapes—it reveals information on “what I really am.” Participants relayed how synchronicity and distinct situations in nature revealed significant personal information, specifically regarding the individual's authentic core self and soul, mirrored by nature.

The significant process of self-discovery in nature was attributed by the participants to specific qualities of nature described as an unconditional, loving, accepting, and nonjudgmental environment. Research on the beneficial and restorative characteristics of the natural environment support this, emphasizing the distance from social constraints and cultural expectations (Bobilya et al., 2011; Heintzman, 2009). For example, in Fredrickson and Anderson's (1999) study on the wilderness as a source for spiritual inspiration, participants on a canoeing or hiking trip described the natural environment as a “noncompetitive atmosphere where there was virtually no reason to be anyone but themselves” (p. 30). The experience helped them to realize what was meaningful in their lives. Experiences of mirroring from the outside of what individuals feel inside, synchronicity, and ultimate and nonjudgmental acceptance often discussed by NBT facilitators are not prevalent in current discussions in psychology of spirituality literature. Future research could try to address these experiences as potentially significant in individuals' lives and explore their benevolent outcomes.

Although the unique qualities of spirituality in nature and the therapeutic meaning they hold are delineated here separately, they were not specifically expressed as separate but rather as overlapping. For example, experiencing inter-

connectedness has been linked here to belonging, while several accounts also attributed the sense of belonging to the accepting setting and to connection to the immensity of nature. Similarly, the discovery of who we are was associated with interconnectedness as well as with mirroring. Consequently, the significance of spirituality in nature embodied in physical, sensory form may be attributed to a variety of ways by which such embodied spirituality answers the core spiritual human needs for meaning and purpose, belonging, and forming a relationship with the sacred. These findings provide new venues for understanding the beneficial human connection to nature while shedding light on the psychological value of experiencing spirituality in nature that may be intentionally cultivated in therapy.

#### **Clinical Implications**

The beneficial therapeutic effects of experiencing spirituality through nature revealed in this study have implications for nature-based therapists as well as for other practitioners seeking to integrate spirituality in practice. The spiritual qualities of nature revealed here may be emphasized, discussed, or experienced through intentional interventions by clinicians who may conduct sessions in nature or integrate these aspects through imagery or by recalling experiences and memories in nature. Current written conceptions of NBT often do not directly refer to spirituality in nature (Rothwell, 2008). Our findings may call for a more central place for such spiritual dimensions. Specifically, nature-based therapists may pay more attention to the explicit therapeutic constructs delineated (e.g., sensing nature's immenseness, experiencing interconnectedness, and highlighting synchronicity), making clients aware of them while finding ways to intentionally evoke them. This may involve creating interventions or conditions whereby the experiences of nature's immensity, interconnectedness, and reflection of inner experiences are attended to and enhanced (e.g., taking people to places in nature that are boundless and immense or calling clients' attention to the way we are mirrored by nature). The way spirituality is experienced and embodied through nature may illuminate a path by which the potential for spirituality as a human resource may be actualized calling for further attention in



current theoretical and empirical discourse of the psychology of spirituality.

### Caveats and Suggestions for Future Research

Because spirituality was not a focus of the original large study, we did not assess the participants' relevant background or beliefs, and spirituality was not dealt with explicitly in the initial interview. This enabled us to gain various perspectives on what was described as the mysterious aspect of NBT without imposing concepts that could limit the participants' descriptions or our understandings. Yet gaining additional information regarding the participants' spiritual beliefs and backgrounds could have been useful in understanding the spiritual connotations of the terms that they used that could have other connotations that we may have overlooked. The heterogeneity of the participants with respect to age, professional affiliation, and experience may be perceived as a strength allowing us to gain a variety of perspectives from people coming from various professional and cultural backgrounds. It may also have been limiting, because such variety may have weakened our capacity to find common themes and reach saturation. The methodology of grounded theory allows the formation of conceptual models derived from the researcher's interpretation of the data rather than focusing explicitly on the participants' phenomenological perspectives (Charmaz, 2008). From the perspective of GT, the understandings gained cannot be separated from the researcher who produced them. So, although various steps were taken to augment the credibility and trustworthiness of the model grounded in data, the conceptualization presented derives from the perspective of the researcher of this study and may be understood differently by other researchers and need to be assessed further by practitioners and researchers. It is also important to take into consideration that the conceptualization presented is the outcome of a specific perceptual lens—that of the practitioners in the field describing the way they perceive or experience spirituality in NBT. The first author did conduct field observations that may shed some light on the clients' experience, but to gain a more encompassing understanding of the therapeutic effect of spirituality in nature, further research

involving the perspective of the clients is necessary.

### Concluding Remarks

The findings of this study illuminate the centrality of the mysterious in nature-based therapies experienced through the embodiment of spirituality by nature and its significant benevolent therapeutic implications. Perluss (2012) referred to Jung who wrote that “we have stripped all things of their mystery and numinosity; nothing is holy any longer,” and as a result, “our psyche is profoundly disturbed” (p. 255). Kaye (2002) supported this position, maintaining that the manifestation of spirituality in the wilderness both reflects the unmet needs of our urban, commodity-driven culture and reveals some archetypal part of us that this culture has obscured, concluding that wilderness programs are fulfilling people's apparent need to connect or reconnect with these needs through the natural world. This study delineates the specific experiences of spirituality enhanced through connection with nature and how they are linked to therapeutic outcomes that may be integrated in therapeutic contexts for growth and full development.

### References

- Aldwin, C. M. (2007). *Stress, coping, and development: An integrative approach* (2nd ed.). New York, NY: Guilford Press.
- Ashley, P. (2007). Toward an understanding and definition of wilderness spirituality. *The Australian Geographer*, 38, 53–69. <http://dx.doi.org/10.1080/00049180601175865>
- Baumeister, R. F. (2002). Religion and psychology: Introduction to the special issue. *Psychological Inquiry*, 13, 165–167. [http://dx.doi.org/10.1207/S15327965PLI1303\\_01](http://dx.doi.org/10.1207/S15327965PLI1303_01)
- Berger, R. (2016). Renewed by nature: Nature therapy as a framework to help people deal with crises, trauma and loss. In M. Jordan & J. Hinds (Eds.), *Ecotherapy: Theory, research & practice* (pp. 177–185). London, England: Palgrave. [http://dx.doi.org/10.1057/978-1-137-48688-2\\_14](http://dx.doi.org/10.1057/978-1-137-48688-2_14)
- Beringer, A. (2000). In search of the sacred: A conceptual analysis of spirituality. *Journal of Experiential Education*, 23, 157–165. <http://dx.doi.org/10.1177/105382590002300307>
- Bobilya, A., Akey, L., & Mitchell, D., Jr. (2011). Outcomes of a spiritually focused wilderness orientation program. *Journal of Experiential Educa-*

- tion, 33, 301–322. <http://dx.doi.org/10.1177/105382591003300403>
- Bobilya, A. J., McAvoy, L. H., Kalisch, K. R., (2005). The power of the instructor in the solo experience: An empirical study and some non-empirical questions. *Journal of Adventure Education and Outdoor Learning*, 5, 35–50.
- Burls, A. (2005). New landscapes for mental health. *Mental Health Review Journal*, 10, 26–29. <http://dx.doi.org/10.1108/13619322200500006>
- Burns, G. W. (1998). *Nature-guided therapy: Brief integrative strategies for health and well-being*. Philadelphia, PA: Brunner/Mazel.
- Canda, E. R. (1990). Afterword: Spirituality reexamined. *Spirituality and Social Work Communicator*, 1, 13–14.
- Charmaz, K. (2008). Grounded theory as an emergent method. In S. N. Hesse-Biber & P. Leavy (Eds.), *Handbook of emergent methods* (pp. 155–170). New York, NY: Guilford Press.
- Charmaz, K. (2014). *Constructing grounded theory: A practical guide through qualitative analysis*. London, England: SAGE.
- Clinebell, H. (1996). *Ecotherapy*. Minneapolis, MN: Fortress Press.
- Davis, E. B., Kimball, C. N., Aten, J. D., Andrews, B., Van Tongeren, D. R., Hook, J. N., . . . Park, C. L. (2018). Religious meaning making and attachment in a disaster context: A longitudinal qualitative study of flood survivors. *The Journal of Positive Psychology*, 14, 1–13. <http://dx.doi.org/10.1080/17439760.2018.1519592>
- De Jager Meezenbroek, E. C., Garssen, B., van den Berg, M., van Dierendonck, D., Visser, A., . . . Schaufeli, W. (2012). Measuring spirituality as a universal human experience: A review of spirituality questionnaires. *Journal of Religion and Health*, 51, 336–354. <http://dx.doi.org/10.1007/s10943-010-9376-1>
- Doherty, T. J. (2016). Theoretical and empirical foundations for ecotherapy. In M. Jordan & J. Hinds (Eds.), *Ecotherapy: Theory, research & practice* (pp. 22–48). London, England: Macmillan. [http://dx.doi.org/10.1057/978-1-137-48688-2\\_2](http://dx.doi.org/10.1057/978-1-137-48688-2_2)
- Foster, I. M., & Borrie, W. T. (2011). *A phenomenology of spiritual experiences in wilderness: Relating self, culture and wilderness*. Retrieved from <https://www.semanticscholar.org/paper/A-Phenomenology-of-Spiritual-Experiences-in-Self%2C-Foster-Borrie/0ac022cc984c2a0b40809d26962e26c5baeadfd1>
- Foster, I. M. (2012). Wilderness, a spiritual antidote to the everyday: A phenomenology of spiritual experiences in the Boundary Waters Canoe Area Wilderness. M.Sc. thesis, Department of Forestry and Conservation, University of Montana.
- Fox, R. J. (1997). Women, nature and spirituality: A qualitative study exploring women's wilderness experience. In D. Rowe & P. Brown (Eds.), *Proceedings ANZALS Conference 1997* (pp. 59–64). Newcastle, NSW: Australian and New Zealand Association for Leisure Studies, Department of Leisure and Tourism Studies, University of Newcastle.
- Fredrickson, L., & Anderson, D. (1999). A qualitative exploration of the wilderness experience as a source of spiritual inspiration. *Journal of Environmental Psychology*, 19, 21–39. <http://dx.doi.org/10.1006/jevp.1998.0110>
- Frumkin, H. (2001). Beyond toxicity: Human health and the natural environment. *American Journal of Preventive Medicine*, 20, 234–240. [http://dx.doi.org/10.1016/S0749-3797\(00\)00317-2](http://dx.doi.org/10.1016/S0749-3797(00)00317-2)
- Gass, M. A., Gillis, H. L., & Russell, K. C. (2012). *Adventure therapy: Theory, research, and practice*. New York, NY: Routledge. <http://dx.doi.org/10.4324/9780203136768>
- Gatersleben, B. (2008). Humans and nature; ten useful findings from environmental psychology research. *Counselling Psychology Review*, 23, 24–34.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Mill Valley, CA: Sociology Press.
- Heintzman, P. (2003). The wilderness experience and spirituality what recent research tells us. *Journal of Physical Education, Recreation & Dance*, 74(6), 27–32. <http://dx.doi.org/10.1080/07303084.2003.10609216>
- Heintzman, P. (2009). Nature-based recreation and spirituality: A complex relationship. *Leisure Sciences: An Interdisciplinary Journal*, 32, 72–89. <http://dx.doi.org/10.1080/01490400903430897>
- Heintzman, P., & Mannell, R. (2003). Spiritual functions of leisure and spiritual well-being: Coping with time pressure. *Leisure Sciences*, 25, 207–230. <http://dx.doi.org/10.1080/01490400306563>
- Herzog, T., Maguire, C., & Nebel, M. (2003). Assessing the restorative components of environments. *Journal of Environmental Psychology*, 23, 159–170. [http://dx.doi.org/10.1016/S0272-4944\(02\)00113-5](http://dx.doi.org/10.1016/S0272-4944(02)00113-5)
- Jones, S. R. (2002). Writing the word: Methodological strategies and issues in qualitative research. *Journal of College Student Development*, 43, 461–473.
- Kaplan, R. (2001). The nature of the view from home psychological benefits. *Environment and Behavior*, 33, 507–542. <http://dx.doi.org/10.1177/00139160121973115>
- Kawulich, B. B. (2005). Participant observation as a data collection method. *Qualitative Social Research*, 6, 1–28. <http://dx.doi.org/10.17169/fqs-6.2.466>

- Kaye, R. (2002). *Wilderness and the human spirit: A secular approach for resource agencies*. (Unpublished manuscript). Fairbanks, AK: U.S. Fish & Wildlife Service, Arctic National Wildlife Refuge.
- Koenig, H. G., McCullough, M. E., & Larson, D. B. (2001). *Handbook of religion and health* (pp. 514–518). New York, NY: Oxford University Press. <http://dx.doi.org/10.1093/acprof:oso/9780195118667.001.0001>
- Kumar, S. (2000). Reverential ecology. *Kyoto Journal*, 43, 46–58.
- Lee, N., Saunders, J., & Goulding, C. (2005). Grounded theory, ethnography and phenomenology: A comparative analysis of three qualitative strategies for marketing research. *European Journal of Marketing*, 39, 294–308.
- Mahoney, A. (2013). The spirituality of us: Relational spirituality in the context of family relationships. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), *APA handbook of psychology, religion, and spirituality: Vol. 1. Context, theory, and research* (pp. 365–389). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/14045-020>
- Maller, C., Townsend, M., Pryor, A., Brown, P., & St. Leger, L. (2006). Healthy nature healthy people: ‘contact with nature’ as an upstream health promotion intervention for populations. *Health promotion international*, 21, 45–54. <https://doi.org.ezproxy.haifa.ac.il/http://dx.doi.org/10.1093/heaprod/dai032>
- Mayseless, O., & Russo-Netzer, P. (2017). A vision for the farther reaches of spirituality: A phenomenologically based model of spiritual development and growth. *Spirituality in Clinical Practice*, 4, 176–192. <http://dx.doi.org/10.1037/scp0000147>
- McDonald, B., & Schreyer, R. (1991). Spiritual benefits of leisure: Participation and leisure settings. In B. L. Driver, P. J. Brown, & G. L. Peterson (Eds.), *Benefits of leisure* (pp. 179–194). State College, PA: Venture.
- McDonald, M., Wearing, S., & Ponting, J. (2009). The nature of peak experience in wilderness. *The Humanistic Psychologist*, 37, 370–385. <https://doi.org.ezproxy.haifa.ac.il/http://dx.doi.org/10.1080/08873260701828912>
- Miller, L. (2015). *The spiritual child: The new science on parenting for health and lifelong thriving*. New York, NY: St. Martin’s Press.
- Morrow, S. L., & Smith, M. L. (2000). Qualitative research for counseling psychology. In S. D. Brown & R. W. Lent (Eds.), *Handbook of counseling psychology* (3rd ed., pp. 199–230). New York, NY: Wiley.
- Naor, L. (2017). Expressing the fullness of human nature through the natural setting. In A. Kopytin & M. Rugh (Eds.), *Environmental expressive therapies: Nature-assisted theory and practice* (pp. 204–226). New York, NY: Taylor & Francis. <http://dx.doi.org/10.4324/9781315310459-11>
- Naor, L., & Mayseless, O. (2017). How personal transformation occurs following a single peak experience in nature: A phenomenological account. *Journal of Humanistic Psychology*, 57, 13–24. <http://dx.doi.org/10.1177/0022167817714692>
- Padgett, D. K. (2016). *Qualitative methods in social work research* (Vol. 36). Thousand Oaks, CA: SAGE.
- Pargament, K. I. (1999). The psychology of religion and spirituality? Yes and no. *The International Journal for the Psychology of Religion*, 9, 3–16. [http://dx.doi.org/10.1207/s15327582ijpr0901\\_2](http://dx.doi.org/10.1207/s15327582ijpr0901_2)
- Pargament, K. I. (2007). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. New York, NY: Guilford Press.
- Pargament, K. I., & Cummings, J. (2010). Anchored by faith: Religion as a resilience factor. In J. W. Reich, A. J. Zautra, & J. S. Hall (Eds.), *Handbook of adult resilience* (pp. 193–210). New York, NY: Guilford Press.
- Pargament, K. I., & Mahoney, A. (2005). THEORY: “Sacred matters: Sanctification as a vital topic for the psychology of religion. *The International Journal for the Psychology of Religion*, 15, 179–198. [http://dx.doi.org/10.1207/s15327582ijpr1503\\_1](http://dx.doi.org/10.1207/s15327582ijpr1503_1)
- Pargament, K. I., Mahoney, A., Shafranske, E. P., Exline, J. J., & Jones, J. W. (2013). From research to practice: Toward an applied psychology of religion and spirituality. In K. Pargament, A. Mahoney, & E. Shafranske (Eds.), *APA handbook of psychology, religion, and spirituality: Vol. 2. An applied psychology of religion and spirituality* (pp. 3–22). Washington, DC: American Psychological Association. <http://dx.doi.org/10.1037/14046-001>
- Park, C. L., Edmondson, D., & Hale-Smith, A. (2013). Why religion? Meaning as motivation. In K. I. Pargament, J. J. Exline, & J. W. Jones (Eds.), *APA handbook of psychology, religion, and spirituality* (Vol. 1, pp. 157–171). Washington, DC: American Psychological Association.
- Perluss, B. (2012). Following the raven: The paradoxical path toward a depth ecopsychology. *Eco-psychology*, 4, 181–186. <http://dx.doi.org/10.1089/eco.2012.0045>
- Piedmont, R. L. (1999). Does spirituality represent the sixth factor of personality? Spiritual transcendence and the five-factor model. *Journal of Personality*, 67, 985–1013. <http://dx.doi.org/10.1111/1467-6494.00080>
- Piedmont, R. L., & Leach, M. M. (2002). Cross-cultural generalizability of the Spiritual Transcendence Scale in India: Spirituality as a universal aspect of human experience. *American Behavioral Scientist*, 45, 1888–1901. <http://dx.doi.org/10.1177/0002764202045012011>

- Richards, K., Carpenter, C., & Harper, N. (2011). Looking at the landscape of adventure therapy: Making links to theory and practice. *Journal of Adventure Education & Outdoor Learning*, *11*, 83–90. <http://dx.doi.org/10.1080/14729679.2011.632877>
- Rossler, M. (2003). World heritage sites: Toward linking the tangible and the intangible. In D. Harmon & A. D. Putney (Eds.), *The full value of parks: From economics to the intangible* (pp. 197–210). Lanham, MD: Rowman & Littlefield.
- Rothwell, L. (2008). *Wilderness therapy and spirituality*. (Master's thesis). Retrieved from <https://pdfs.semanticscholar.org/59f7/86bf8325ea2466057eade02614d1c3e372d7.pdf>
- Russo-Netzer, P., & Mayselless, O. (2017). Spiritual change outside institutional religion as inner work on the self: Deep within and beyond. *Journal of Adult Development*, *24*, 1–14. <http://dx.doi.org/10.1007/s10804-016-9241-x>
- Sahlin, E. (2016). Experiencing existential dimensions in nature based rehabilitation. In M. Jordan & J. Hinds (Eds.), *Ecotherapy: Theory, research & practice* (pp. 98–111). London, England: Palgrave. [http://dx.doi.org/10.1057/978-1-137-48688-2\\_8](http://dx.doi.org/10.1057/978-1-137-48688-2_8)
- Schmidt, C., & Little, D. E. (2007). Qualitative insights into leisure as a spiritual experience. *Journal of Leisure Research*, *39*, 222–247. <https://doi-org.ezproxy.haifa.ac.il/>. <http://dx.doi.org/10.1080/00222216.2007.11950106>
- Searles, H. F. (1960). *The nonhuman environment: In normal development and schizophrenia* (Vol. 5). New York, NY: International Universities Press.
- Shostak-Kinker, T. (2012). *Rock climbing, flow therapy, and yoga*. (Master's thesis). Retrieved from <https://searchroquestcom.ezproxy.haifa.ac.il/docview/1283371538?accountid=14544>
- Siegel, D. (2007). *The mindful brain: Reflection and attunement in the cultivation of well-being*. New York, NY: Norton & Co.
- Smith, J. A., & Osborn, M. (2003). Interpretative phenomenological analysis. In J. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 51–80). London, England: SAGE.
- Sperry, L., & Shafranske, E. P. (Eds.). (2004). *Spiritually oriented psychotherapy*. Washington, DC: American Psychological Association.
- Steinhauser, K. E., Fitchett, G., Handzo, G. F., Johnson, K. S., Koenig, H. G., Pargament, K. I., . . . Balboni, T. A. (2017). State of the science of spirituality and palliative care research Part I: Definitions, measurement, and outcomes. *Journal of Pain and Symptom Management*, *54*, 428–440. <http://dx.doi.org/10.1016/j.jpainsymman.2017.07.028>
- Stiles, W. B. (1993). Quality control in qualitative research. *Clinical Psychology Review*, *13*, 593–618. [http://dx.doi.org/10.1016/0272-7358\(93\)90048-Q](http://dx.doi.org/10.1016/0272-7358(93)90048-Q)
- Strauss, A., & Corbin, J. (1994). Grounded theory methodology. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 217–285). Thousand Oaks, CA: SAGE.
- Stringer, L. A., & McAvoy, L. H. (1992). The need for something different: Spirituality and wilderness adventure. *Journal of Experiential Education*, *15*, 13–20. <http://dx.doi.org/10.1177/105382599201500103>
- Taylor, B., & Geffen, J. (2003). Battling religion in parks and forest reserves: Facing religion in conflicts over protected places. In D. Harmon & A. D. Putney (Eds.), *The full value of parks: From economics to the intangible* (pp. 281–293). Lanham, MD: Rowman & Littlefield.
- Terhaar, T. L. (2009). Evolutionary advantages of intense spiritual experience in nature. *Journal for the Study of Religion, Nature and Culture*, *3*, 303–339. <http://dx.doi.org/10.1558/jsrnc.v3i3.303>
- Totton, N. (2014). The practice of wild therapy. *Therapy Today*, *25*, 14–17.
- Ulrich, R. S. (1993). Biophilia, biophobia, and natural landscapes. In S. Kellert & E. O. Wilson (Eds.), *The biophilia hypothesis* (pp. 73–137). Washington, DC: Island Press.
- Williams, K., & Harvey, D. (2001). Transcendent experience in forest environments. *Journal of Environmental Psychology*, *21*, 249–260. <http://dx.doi.org/10.1006/jevp.2001.0204>
- World Health Organization. (2002). *WHOQOL-SRPB field-test instrument: WHOQOL spirituality, religiousness and personal beliefs (SRPB) field-test instrument: The WHOQOL-100 questions plus 32 SRPB questions, 2012 revision*. Geneva, Switzerland: Author. Retrieved from <http://www.who.int/iris/handle/10665/77777>

Received January 17, 2019

Revision received June 11, 2019

Accepted June 20, 2019 ■