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Tracey A. Laszloffy
Markie L. C. Twist *Editors*

Eco-Informed Practice

Family Therapy in an Age of Ecological Peril

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AFTA SpringerBriefs in Family Therapy

A Publication of the American Family Therapy Academy

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Editors
Tracey A. Laszloffy
Center for Relationship Healing
Norwich, CT, USA

Markie L. C. Twist
Human Development & Family Studies Department
University of Wisconsin–Stout
Menomonie, WI, USA

ISSN 2196-5528 ISSN 2196-5536 (electronic)
AFTA SpringerBriefs in Family Therapy
ISBN 978-3-030-14953-6 ISBN 978-3-030-14954-3 (eBook)
https://doi.org/10.1007/978-3-030-14954-3

This Springer imprint is published by the registered company Springer Nature Switzerland AG
The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

“In every walk with nature one receives far more than he seeks.”

—John Muir (2015)

With gratitude:For my family, who taught me to love and respect the Earth and all of her beings.

—Tracey A. Laszloffy

For my familial mentor into care ethics for the earth, my grandfather, Dell Chandler Dodge, and my professional mentor into care ethics for her people, my advisor, supervisor, professor, and mentor, Dr. W. Harper Gaushell

—Markie L. C. Twist

Series Editor Foreword

The AFTA Springer Briefs in Family Therapy is an official publication of the American Family Therapy Academy. Each volume focuses on the practice and policy implications of innovative systemic research and theory in family therapy and allied fields. Our goal is to make information about families and systemic practices in societal contexts widely accessible in a reader friendly, conversational, and practical style. AFTA's core commitments to equality, social responsibility, and justice are represented in each volume.

Eco-Informed Practice: Family Therapy in an Age of Ecological Peril is a call to action. Editors Tracey Laszloffy and Markie Twist and chapter authors challenge family therapists to take the systemic roots of our field seriously that fully addressing client issues requires placing them in context of our relationship with the ecological world in which we live. The book identifies how modern life and dominant ways of thinking promote disconnection from the natural environment and details the reciprocal effects on both human well-being and the environment and makes the case that ecological issues are also social justice issues and linked to other forms of oppression.

Fortunately, the authors do not simply raise the problem. The authors help readers see how they can incorporate attention to the natural environment in case assessment and offer practical suggestions for interventions and activities at the clinical level, as well as individual and collective advocacy at personal and professional levels. I am left with many ideas for how I can make my teaching and practice more eco-informed.

Carmen Knudson-Martin
Lewis & Clark College
Portland, OR, USA

Acknowledgments

We would like to thank all of the people who helped see this work to fruition. This includes our appreciation and thanks to the person responsible for pushing this publication forward, Dr. Carmen Knudson-Martin of the American Family Therapy Academy. Carmen has been exceptional at guiding our edits, giving us feedback, and offering suggestions and direction and most importantly in her unwavering support and encouragement. Our thanks also go to our editor, Jennifer Hadley, at Springer. Overall, we are thankful to all at Springer who worked on this book to make our vision become a reality.

We also could not have completed this book without the efforts of the authors who contributed to this edited volume; this includes Chris Blankenship, Deanne Carvahlo, Stephen Fife, Sarah Hechter, Pilar Hernandez-Wolfe, Katherine Hertlein, Amanda Korbar, Daniela Leon, Jason Platt, and Shannon Yuen. We also extend our specific thanks to the people who contributed earlier pieces to this edited work that we were not able to find a space for in the final volume, namely, Melissa K. Bergdall, Anthony Santiago, Nels Paulson, and Amber Georgakopoulos. Our thanks to all of you for your time, support, and encouragement.

I (MLCT) also want to professionally and personally thank my coauthor Tracey A. Laszloffy (TAL). I have learned so much from you, Tracey, through your revolutionary work in the practicing and writing of eco-informed family therapy and well before this in your groundbreaking work around social justice practices that has permeated our field for years. I have been and remain honored to have been a part of this work with you, which I believe will benefit our colleagues, students, clinical participants, and human beings alike long after its publication.

I (TAL) want to thank my parents, June and Jerome Laszloffy, who taught me to love the earth and all animals, human and nonhuman alike; my sister, Joyce Laszloffy, who was my partner in exploring nature as children and supporting our love of the earth throughout our lives; and my partner Bill, who taught me how to heighten the pleasure of my time spent outdoors by embracing present moment living.

Lastly, I (MLCT) want to thank my families of origin, choice, and of postmodern constructions for sharing the understanding that our connection with each other and

our earth is a vital part of our wholeness as individuals and collectively as human beings—namely, my mother (mi madre), Janis Margaret Brown; my brother, Brennan Darrell Christianson; my grandmother, Sydney Jane Dodge; my grandfather, Dell Chandler Dodge; my father, Vernon Darrell Christianson; my child, Leif Brenmark Christianson Blumer; my life partner, Ryan Barry Peterson; my parenting partner, Tamara Pribnow; and many friends over my lifetime like Sarah Fleming, Jacob Hess, Lavina Hess, Devan Oliver, Coreen Haym, Tonia Blumer, Amanda Morgan, Robert Boeckmann, Elizabeth Bonderson, Joel Harrison, and Marcie Hayden—to name just a handful.

Contents

Contributors

C. A. Blankenship Open Sky Wilderness Therapy, Durango, CO, USA

Deanna S. Carvalho Alliant International University, Charlotte, NC, USA

Stephen T. Fife Texas Tech University, Lubbock, TX, USA

Sarah A. Hechter Addo Recovery: Rainbow, Las Vegas, NV, USA

Pilar Hernandez-Wolfe Lewis and Clark College, Portland, OR, USA

Katherine M. Hertlein University of Nevada, Las Vegas, NV, USA

Amanda J. Korbar University of Nevada, Las Vegas, Las Vegas, NV, USA

Tracey A. Laszloffy Center for Relationship Healing, Norwich, CT, USA

Daniela Leon University of Nevada, Las Vegas, Las Vegas, NV, USA

Jason J. Platt International Center for Therapy and Dialogue, Mexico City, ST, Mexico

Markie L. C. Twist University of Wisconsin-Stout, Menomonie, WI, USA

Shannon Yuen University of Nevada, Las Vegas, Las Vegas, NV, USA

About the Editors

Tracey A. Laszloffy, PhD (she/her) is the Director of the Center for Relationship Healing in Southeastern Connecticut where she also maintains a full-time private practice and serves as a Faculty Coach specializing in supporting faculty of color who are on the tenure track. Dr. Laszloffy received her master's and doctoral degrees in Marriage and Family Therapy from Syracuse University in New York. She has over 20 years of experience as a Therapist and has been a Professor of family therapy at Syracuse University, the University of Connecticut, Seton Hill University, and Alliant International University at San Diego. While she has published and presented extensively in the areas of healing the wounds of trauma and oppression, working with marginalized populations, and promoting culturally sensitive approaches to therapy, she feels especially passionate about her work calling the field of family therapy to remain true to its systemic roots by addressing the relationship between human health and well-being and that of the planetary ecological system.

Markie L. C. Twist, PhD (she/her/they/them) is the Program Coordinator of the Graduate Certificate in Sex Therapy Program and Professor in the Human Development and Family Studies Department and Marriage and Family Therapy Program at the University of Wisconsin-Stout. Markie is a Licensed Marriage and Family Therapist and Mental Health Counselor, American Association for Marriage and Family Therapy Clinical Fellow and Approved Supervisor, and an American Association for Sexuality Educators, Counselors, and Therapists Certified Sexuality Educator. Markie is Coauthor of the books *The Couple and Family Technology Framework: Intimate Relationships in a Digital Age* and *Focused Genograms: Intergenerational Assessment of Individuals, Couples, and Families* (second edition). Dr. Twist serves as the Editor-in-Chief of the College of Sexual and Relationship Therapists journal *Sexual and Relationship Therapy: International Perspectives on Theory, Research and Practice.* Dr. Twist also serves on the editorial board of the *Journal of Marital and Family Therapy*. Dr. Twist regularly consults, presents, and researches in the following areas: eco-informed family therapy practices, couple and family technology practices, and sexual, gender, erotic, and relational diversity. To learn more visit: drmarkie.com/.

About the Authors

Christopher A. Blankenship, MSW, LCSW (he/him) works as a Clinical Therapist at Open Sky Wilderness Therapy in a wilderness therapy program. There he helps young people and families to unplug from the burdens of the modern world, get their hands dirty, understand their family systems, and explore how they fit into the world at large. Chris knows firsthand of the transformative power of connection with the natural world. As a teenager, he overcame struggles with identity formation and depression when he began climbing Colorado's Rocky Mountains. This recreation sparked an idea in Chris and was translated into vocation as soon as possible. After college, Chris spent years teaching at an inner-city school in post-Katrina New Orleans, LA, and consistently used the outdoors as a tool with struggling students. After taking students on backpacking and mountain biking trips, Chris realized that nature is a profound co-teacher and that it can be a co-therapist, as well.

Deanne S. Carvalho, MA, LMFTA (she/her) has spent a lifetime exploring her own personal relationship with the natural world. She has participated in wilderness rites of passage work, vision quests, shamanic healing ceremonies, and wilderness-based retreats in Latin America and across the United States. She has also facilitated experiential symposiums that draw on indigenous wisdom and aim to bring about ecological, societal, and spiritual well-being. Deanne recently received her master's degree in International Counseling Psychology from Alliant International University in Mexico City. She is currently practicing in Charlotte, North Carolina, and is dedicated to integrating indigenous wisdom with modern therapeutic practices to support individual and collective healing and transformation.

Stephen T. Fife, PhD (he/him) is an Associate Professor at Texas Tech University and Licensed Marriage and Family Therapist. He has a master's degree in Psychology and a doctorate in Marriage and Family Therapy. His research interests center on the areas of couple therapy, treatment and healing of infidelity, common factors and therapeutic change process, and professional athletes and relationships. Dr. Fife coauthored two books on couple therapy: *Couples in Treatment* and *Techniques for the Couple Therapis*t. He is the Co-developer of an innovative meta-model of

psychotherapy called the "Therapeutic Pyramid," for which he and his colleagues were awarded the "Best Article of 2014" by the *Journal of Marital and Family Therapy*. He has published and presented his research nationally and internationally and is very active in community outreach, giving numerous presentations on couple and family relationships. He is happily married and is the father of two sons. He loves the outdoors, and when not busy with family or work, you can find him playing basketball, coaching soccer, or dreaming about fly fishing.

Sarah A. Hechter, MS (she/her) is a graduate of the University of Nevada, Las Vegas, where she received her master of Science in Marriage and Family Therapy. During her time at UNLV, she was awarded the Excellence in Marriage and Family Therapy Service Award. Sarah has also been awarded scholarships for international travel to lecture on ecopsychology at universities and mental health hospitals in China and Cambodia. In her own practice, Sarah is an Advocate for using nature-oriented interventions and restorative environments as a conduit to help couples, families, and individuals in their journey toward health and happiness.

Pilar Hernandez-Wolfe, PhD (she/her) is an Associate Professor in the Marriage, Couple, and Family Therapy program at Lewis & Clark College. She is also Guest Faculty at the Universidad Javeriana, Cali. She is a Licensed Marriage and Family Therapist and American Association for Marriage and Family Therapy-Approved Supervisor. She pioneered the concept of vicarious resilience in the context of torture survivor treatment in the United States and mental health services addressing politically based violence in Colombia. She is the author of the book *A Borderlands' View of Latinos, Latin Americans and Decolonization. Rethinking Mental Health*, published by Jason Aronson, and coauthor of *La Resiliencia Vicaria en las Relaciones de Ayuda* (In press), Universidad Javeriana, Cali, Colombia, with Dr. Victoria Eugenia Acevedo. Dr. Hernandez-Wolfe is an immigrant from Colombia. She identifies as Latina, heterosexual, cisgender, and able-bodied. Her biocentric views and integration of non-Western ways of healing stem from her relationships with indigenous teachers and her work with plants and animals. Two of her three dogs are rescues whom she rehabilitated after experiencing severe abuse.

Katherine M. Hertlein, PhD (she/her) is a Professor in the Marriage and Family Therapy Program at the University of Nevada, Las Vegas. She received her master's in Marriage and Family Therapy from Purdue University Calumet and her doctorate in Human Development with a specialization in Marriage and Family Therapy from Virginia Tech. Across her academic career, she has published over 100 articles and book chapters and 8 books. Recently, Dr. Hertlein published *Systemic Sex Therapy* (second edition) and *A Clinician's Guide to Systemic Sex Therapy* (second edition). Dr. Hertlein has also produced the first multitheoretical model detailing the role of technology in couple and family life published in the coauthored book, *The Couple and Family Technology Framework: Intimate Relationships in a Digital Age*. She has served as a Keynote Speaker for several state conferences on technology and

relationships. Dr. Hertlein has been the Recipient of numerous awards and presents nationally and internationally on sex, technology, and couple relationships.

Amanda J. Korbar, BS (she/her) will graduate in December 2018 from the Couple and Family Therapy Program in the School of Medicine at the University of Nevada, Las Vegas. She received her Bachelors of Science, Cum Laude, in Community Health from Hofstra University in 2016. Amanda believes in natural healing techniques such as mindfulness, meditation, trauma-informed yoga, and reintegration between Self and Earth. Her Clinical Innovation Capstone is based upon these ideas and more. After her licensure is completed in the state of Nevada, Amanda hopes to spend her days in nature, healing and growing within herself and her practice.

Daniela Leon, BA, CADCI (she/her) is a Certified Alcohol and Drug Counselor Intern at a nonprofit agency. She is also a Graduate Student in the Couple and Family Therapy Program at the University of Nevada, Las Vegas. Daniela's research interests are in developing eco-informed practices in therapy sessions.

Jason J. Platt, PhD (he/him) is the Director of the International Center for Therapy and Dialogue in Mexico City, Mexico. He served as the as the Program Director of the Masters in International Counseling Psychology Program at Alliant International University's Mexico City Campus for 14 years. While at the university, he founded the California School of Professional Psychology (CSPP) Spanish Language, Class and Cultural Immersion Program and the Certificate in Latin American Family Therapy. Dr. Platt has also facilitated immersion education programs in India, Cuba, El Salvador, Cambodia, and Vietnam. Dr. Platt has published journal articles and book chapters on the nature of competent clinical practice with an emphasis on international clinical competencies, Latino communities, impoverished populations, and the need to adapt clinical practice to meet the mental health needs of underserved communities. As an Educator, he is passionate about exploring the effectiveness of alternative educational and training modalities, particularly on the use of critical pedagogy.

Shannon Yuen, BA (she/her) is a Student Therapist in the Couple and Family Therapy Program at the University of Nevada, Las Vegas. Shannon completed her undergraduate in Canada at Dalhousie University and the University of Calgary in Psychology and Sociology. Living in Alberta, Canada, drove Shannon's passion for the environment and the positive benefits that it provides for mental health. Shannon has strong goals to conduct more research in the future and learn about how differently therapy is conducted within other cultures. Shannon is also an avid reader of diverse topics and spends her time at the airport when travelling adding to her personal library collection.

Introduction

Markie L. C. Twist and Tracey A. Laszloffy

> *…if you don't hold the frogs as sacred as the human family then you're doomed*
>
> —Gregory Bateson (Ray, 2007, p. 868).

It was June 2015 when Tracey and I (MLCT) first met each other at the American Family Therapy Academy (AFTA) annual congress. I had been aware of Dr. Laszloffy's pioneering work regarding the need for greater attention to culture in the field of family therapy (FT; Hardy & Laszloffy, 1992, 1994, 1995, 2002; Laszloffy & Hardy, 2000) since my doctoral schooling at Iowa State University. I saw her call for a social justice perspective of our field as essential then, and this was only reaffirmed when I read her groundbreaking piece on eco-informed FT (Laszloffy, 2009). The timing of this latter piece could not have been more perfect.

You see, I (MLCT) had attended the 2009 American Association for Marriage and Family Therapy (AAMFT) Annual Conference and listened to the keynotes of both Drs. Becvar (2009) and Kuehl (2009). Each spoke about how the roots of the field are ecological, yet in spite of this, we, as a field, had not yet made the connections between the relationship between families and their larger home—the Earth. Around this same time, I was thinking about how we needed to be including ecology into our therapy practices more, and so these keynotes resonated with me. I then began a study on FT student intern's thoughts on eco-informed therapy practices in the field (Blumer, Hertlein, & Fife, 2012). In the process of this study, I read Tracey's piece and realized something bigger happening. I was not alone in my thinking about the need, now more than ever, for ecological practices to be a part of FT. For several years after this I would spend my time writing grants focused on trying to include more eco-sustainability and ecology practices in FT—all of which would go

M. L. C. Twist
University of Wisconsin-Stout, Menomonie, WI, USA

T. A. Laszloffy (✉)
Center for Relationship Healing, Norwich, CT, USA

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_1

unfunded. I tried to get book contracts focused on the topic. All of this was met with resistance.

For many years, I (TAL) too have believed that there is a natural alignment between the fields of FT and ecology. As a systemic, contextually grounded profession, FTs understand that context shapes reality and we cannot understand or influence human behavior without attending to the context within which it occurs. This simple idea is what drew me to become a marriage and family therapist (MFT) as an undergraduate student. Since childhood I had been passionate about social justice issues, including ecological justice, therefore, I wanted a career that would allow me to be a healer and an agent of change at both the micro and macro levels. After taking an introductory MFT course I knew I had found a profession that would allow me to bring my passions together. In FT I believed I could be a therapist who addressed the relationship between individual and family health and functioning and broader sociocultural and ecological issues.

Of course, once I embarked on my education to become an MFT, I realized the field had a long way to go to fully actualize it systemic principles. Like Markie, I spent many years submitting manuscripts and workshop proposals that focused on the connection between MFT practice and ecological issues. They were always rejected. When my article "The Pattern That Connects" (Laszloffy, 2009) was published in 2009, I felt hopeful. However, little had changed, even at that point. But then came 2015. To my delight, I was invited to present a keynote address at the AFTA annual congress on Eco-Informed Family Therapy (Laszloffy, 2015). This was a speech I had imagined in my mind since my first day as an MFT graduate student some 23 years earlier.

When program chair Dr. Volker Thomas contacted me (MLCT) about the AFTA annual congress and asked if I would moderate a keynote session on eco-informed family therapy that was being given by Tracey, I gladly accepted. I thought, here at last, our field is beginning to see the relevance of these issues. The address was met with mixed feedback from attendees. It definitely generated conversation. Tracey and I recognized that this was going to be an uphill push, but we knew that we wanted to find a way to work together to help integrate the ecological context into FT. Hence, when AFTA, via Carmen Knudson-Martin, asked us if we (TAL and MLCT) were interested in co-editing a book on the topic we said, "Yes!" All we could think was "FINALLY!" After a few life setbacks, here we are. This is our chance to describe, discuss, practice, and apply our essential belief that we must recognize and challenge our separation from nature. The grave danger in seeing ourselves as separate from our environment and the ecological system is that this leads us to dominate and chop up the natural world (Bateson, 1972), and in so doing, we are destroying the only home we have. Instead we must recognize the interconnectedness between all matter and beings.

Indeed, the failure of modern human beings to recognize and embrace our essential relatedness to nonhuman animals and the natural world is one of the greatest threats we face. Gregory Bateson, one of the leaders in the fields of anthropology and ecological systems, cautioned that there is danger in seeing ourselves as separate from our environment and in trying to dominate and dissect the natural world

(Bateson, 1972; Laszloffy, 2009). Yet, this is exactly what we as a species have been doing. In fact, in a notable speech, Bateson warned of the dangers of not recognizing the interconnectedness between families and ecology by stating, "…if you don't hold the frogs as sacred as the human family then you're doomed" (Ray, 2007, p. 868). Although humanity as a whole may persist in denying that our fate is linked to the health of our ecosystem, our hope is that FTs, as systemic thinkers, will begin to recognize and respond to the interrelatedness between ourselves and our world (Blumer et al., 2012; Laszloffy, 2009).

It is somewhat ironic to us that a field rooted in systems theory has yet to explicitly address how health and well-being are connected to the health and well-being of the planet, while the field of psychology, which is primarily concerned with individual and intrapsychic issues, has an entire sub-discipline, eco-psychology, devoted to examining the link between individuals and the ecosystem. As a result, there are several books on the market that focus on the links between mental health and ecological health (see: Buzzell & Chalquist, 2009; Fisher, 2013; Kahn & Hasbach, 2012; McGeeney, 2016; Nemeth, Hamilton, & Kuriansky, 2015; Roszak, 2001; Roszak, Gomes, Kanner, Brown, & Hillman, 1995; West, 2007). Until now, there are no such books within FT. This volume is the first of its kind in the FT field.

In this edited book, we and our coauthors examine how humans at large have become disconnected from the natural world, and how this has led us to dominate and exploit our ecological system in ways that threaten our very survival. We explain how this disconnection is linked to other forms of oppression and structural violence, and hence clarify how environmental activism is a social justice issue. We explain why, as systemically trained professionals, FTs are well situated to understand the perils of separating ourselves from nature and exploiting the earth, and how we can use our knowledge and skills to promote reconnection, healing, and sustainability. We also explicate the benefits that come from living in more connected ways with our natural world including enhanced physical, mental, and relational health and wellness and a deeper commitment to treating the earth, and all of its inhabitants, with care and respect (Davis, Green, & Reed, 2009; Nisbet, Zelenski & Murphy, 2009).

Drawing from the systemic roots of FT, as therapists and as human beings we need to embrace our interrelatedness with the greater whole of the planetary system and choose ways of being that stem from this awareness. Currently therapists have few guidelines for how to integrate attention to nature and the environment into their work. In that spirit, this book describes an eco-informed approach to practice, which is introduced and initially described by me (TAL) in the chapter "What is an Eco-Informed Approach to Family Therapy?" Here a framework is presented for understanding how disconnection from nature compromises our health and wellness. Implications for clinical practice are discussed. This chapter outlines how therapists can embark on the process of challenging problems that stem from disconnection from nature, while promoting ways of living and being that are ecologically grounded. The chapters that follow extend on these introductory ideas by offering more detailed and specific guidance for how therapists can adopt an eco-informed approach to therapy, teaching, research, and life. Each chapter contains

clear examples and specific suggestions for linking theory to practice and clarifying how FTs can integrate an eco-informed approach into their clinical work.

In the chapter "Evaluating How Mental, Physical and Relational Health Are Tied to Ecological Issues," I (TAL) explore how our mental, physical, and relational health are tied to the health of the ecosystem. I explore how many of the common presenting problems we see in therapy (e.g., alienation, depression, anxiety, a sense of meaninglessness, and relational conflict) are tied to the impact of being disconnected from nature, our out-of-control technology-related behaviors and other secondary sources, and the literal sickness of the environment (toxins, pollution, etc.).

In the chapter "Eco-Informed Couple and Family Therapy, Systems Thinking and Social Justice," Pilar Hernandez-Wolfe clarifies how a truly systemic eco-informed approach to therapy is ever mindful of how the oppression of the environment and nonhuman animals is connected to structural violence based on race, gender, class, etc. This chapter deconstructs the connections between each of these oppressions and thereby makes explicit how environmental activism is a social justice issue.

In the chapter, "Children and Nature," Sarah A. Hechter and Stephen Fife focus on how children today, by virtue of living in a modern and digital society, experience the greatest disconnection from nature than any generation in history. They explore how the separation from nature coupled with being heavily indoctrinated into the web of technology are linked to many of the common ailments that children suffer from today (e.g., obesity, attention-deficit hyperactivity disorder (ADHD), depression, and anxiety).

In the chapter, "Clinical Applications of an Eco-Informed Approach to Therapy: A Systemic Perspective," Katherine M. Hertlein and Sarah A. Hechter outline and discuss methods and interventions to utilize in therapy that incorporate nature, including how to utilize outdoor experiences, using nature metaphors or nature objects therapeutically, nature restoration experiences, wilderness immersion, and animal-assisted therapies.

In the chapter "Wilderness and Adventure Therapy Immersion Therapy," Chris Blankenship examines wilderness philosophy and the benefits of having sustained, immersive contact in and with nature. Also discussed are some of the challenges and barriers that people commonly face when they may strive to disengage from modern society and immerse themselves in nature with ideas for how to negotiate around and through these challenges and barriers.

In the chapter "Indigenous Healing: Mental Health and the Path of the Condor," Deanne Carvalho and Jason Platt examine how indigenous cultures understand the relationship between humans and nature and how this connects with their beliefs about health and sickness, and with healing. The chapter provides examples of how Western practitioners can learn from indigenous cultures by developing methods that are rooted in our relationship with nature.

In the chapter "Family Therapists and Eco-Activism," I (TAL) explain how as individual FTs and as a field we have a responsibility to take action in support of advancing progressive environmental practices, regulations, and laws. This chapter explores a variety of actions that individuals and the field can take in the spirit of

manifesting a higher level of environmental consciousness and activism, drawing, in part, on what we can learn from the fields of psychology and social work.

In the final chapter "Incorporating an Eco-Informed Orientation into Family Therapy Education," written by myself (MLCT) and some of my FT students, namely Daniela Leon, Amanda Korbar, and Shannon Yuen, we discuss current approaches to FT education and explore how these may be adapted to reflect a more eco-informed approach. Provided are examples of how educators can incorporate an eco-informed orientation into FT courses and supervision. This approach is presented within an interdisciplinary framework aimed at promoting greater cultural humility around ecological awareness, knowledge, and skills, so that FT students and therapists will be better prepared to work with clients in a truly systemic, hence eco-informed manner.

Above all else, with this edited book we hope to fill the gap that exists within the FT literature by identifying and exploring the links between family health and well-being, and the health and well-being of the planetary system. We hope you will find this book as meaningful as we do, and that it will help us all remember to hold the frogs as sacred as our own families and those with which we work to heal.

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What Is an Eco-Informed Approach to Family Therapy?

Tracey A. Laszloffy

If we could assume the view of nonhuman nature, what passes for sane behavior in our social affairs might seem madness.

(Roszak, 2001, pp. 13–14).

Introduction

Dr. Daniel Elora, a Peruvian-American family therapist who lived in Charlotte, North Carolina, was conducting a first session appointment with Norma Jean, a 29-year-old African American woman who in anguish and despair told him, "I'm the only person my son Jimmy has in this world. I have to make sure he's okay, but some days it's all I can do to get up out of bed to make him breakfast. I am exhausted, irritable and sad. I don't know how to help either of us." Norma Jean went on to explain that she had been feeling depressed and lethargic for quite some time and to make matters worse, she thought that her 10-year-old son Jimmy also was battling depression.

Norma Jean grew up in Wallace, a small town in eastern North Carolina living with her mother, Ida, and her grandmother Pearl. Norma Jean never knew her father who died in a farming accident before she was born. At 12 her mother died from cancer, at which point her grandmother Pearl raised her alone. When Norma Jean was 18 she had a brief affair with a married man that ended shortly after she became pregnant with Jimmy.

When Dr. Elora asked Norma Jean the reason for relocating to Charlotte, she explained that after the recent passing of her grandmother, "It was time to leave Wallace. Grandma Pearl was my world and she is the reason I stayed in Wallace for as long as I did. I wanted to leave years ago but grandma would not give up her family's land. She was the granddaughter of a slave and her father built the house we lived in."

T. A. Laszloffy (✉)
Center for Relationship Healing, Norwich, CT, USA

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_2

Nodding, Dr. Elora asked, "Given its importance, why did you want to leave?"

> When I was young I loved Wallace. I loved being outside on my family's land. But when I was around 8 or 9, things changed. That's when they started spraying and from then on, no one could ever go outside anymore. We lived locked up in our house for years, like prisoners. It's probably why Jimmy is hooked on video games. He isn't much of a reader so what else is he going do inside all the time. I hope that might change now.

From a traditional systems perspective the symptoms exhibited by Norma Jean and Jimmy could be explained by several conventional factors. They had just left their ancestral family home to relocate to a much larger city where they were alone. They had recently lost a beloved family member who had been an emotional anchor. Norma Jean also was working a job she disliked because she was desperate to make ends meet. All of these things likely contributed to their sense of malaise, sullenness, irritability, and despair. Yet, for eco-informed therapists there is an understanding that the problems that bring people to therapy (e.g., alienation, depression, anxiety, a sense of meaninglessness, and relational conflict) may also be tied to eco-based factors. This chapter examines what factors might comprise an eco-informed approach to family therapy (FT).

Background

I (TAL) grew up in a white, middle class, Jewish family in a small rural college town in Connecticut. Growing up, I spent a lot of time playing outdoors. I felt a deep love of nature, and especially of animals. The sound of the wind rustling in the trees, the sensation of sunshine and raindrops on my skin, and the smell of mossy summer earth beneath my feet were sources of both serenity and joy. Relatedly, I felt an abiding love for animals. The affiliation I felt to nature, and animals in particular, aroused the activist in me. From my earliest years I was aware of the damage that human actions were inflicting on the environment, and I was especially distressed about the exploitation and abuse of nonhuman animals. Consequently, I collected signatures for petitions, wrote letters to my representatives, and held bake sales to raise money for organizations fighting against fur coats, animal experimentation, circuses, pollution, deforestation, and the burning of fossil fuels. Yet despite my passion, it was not until I was 20 that I recognized a significant contradiction between my beliefs and my behaviors.

While taking a college course on public speaking I had to present a persuasion speech and I argued for the need to support environmental activism and animal rights. Afterwards a classmate shared that she was moved by my speech yet she was struggling because she wondered if it was possible to love and protect animals without becoming a vegetarian. No one had ever posed that question to me, nor had I ever posed it to myself. For all of my consciousness I had never considered the contradiction between my devotion to protecting animals and the environment and my food choices. Once my hypocrisy was exposed I became a vegetarian, but I was anguished by the question of how was I able exist in this state of dissonance for so long without realizing it?

Eventually I came to realize that the answer to my question was tied to the fact that I was born into a culture of disconnection that promotes a deep separation between humans and nature. The emotional affiliation I felt with nature and other animals existed in spite of the culture I was raised in, not because of it. I was taught NOT to see the connections between things, which enabled my oblivion to the schism between loving animals on one hand, while on the other hand, eating animals who had endured painful lives and suffered gruesome deaths to become my food.

Recognizing that my contradiction was a symptom of a larger societal contradiction, I knew then that I wanted a career focused on transforming this culture of disconnection. A few months later in an undergraduate marriage and family therapy (MFT) course I was introduced to systems theory that is grounded in the premise that the whole is greater than the sum of its parts and all things are interrelated. I was confident that I had found a profession that would allow me to honor the connections between human beings and nature and to work in support of healing and justice for all life on the planet. Yet, despite my enthusiasm, 25 years since launching my journey as an MFT, I am facing two truths that are a source of sadness for me. First, the field of MFT is far from manifesting its potential with respect to ecological issues, and second, in the last quarter of a century, the well-being of the planet has taken a perilous turn for the worse.

The Current State of Affairs

The disconnection between humans and nature has reached a tipping point whereby our planet, and therefore humankind, is in peril. "The climate is changing rapidly, oceans are acidifying and entire biomes are disappearing – all at a rate measurable during a single human lifetime. The future of many living organisms is now in question. Not only wild plants and animals are at risk: people are increasingly victims of the deteriorating state of nature" (World Wildlife Fund; WWF, 2016, p. 5). The planet's resources are being crushed under the weight of a combination of stressors including an escalating global population, mass migration to cities, growing demand for energy, and an increasingly massive global agribusiness industry (Achenbach, 2018).

There is growing awareness at the global and many local levels of the vital need to address problems such as carbon dioxide (CO_2) emissions, pollution, deforestation, ocean acidification, and species extinction. At the same time, there are signs that we are not acting quickly enough, and even worse, that we are reversing the progress that we finally have started to make. In a report issued in October 2018 by the UN Intergovernmental Panel on Climate Change (IPCC), it was revealed that as early as 2030, the planet will reach the crucial threshold of 1.5° Celsius of global warming and the consequences will be dire (Miller & Croft, 2018). Without immediate, combined, progressive global action, our planet will soon become a very unpleasant place to live.

Given the peril our planet is facing, we need agents of healing and change who understand the principles of circular causality, how context shapes reality, and how the whole is greater than the sum of its parts. Family therapists (FTs), as systemic practitioners, are situated to do just this. FTs have the epistemological and practical knowledge and skills to see and address the connection between ecological issues and the problems people present with in therapy, and they are well positioned to assume a vital role in contributing to larger societal/planetary change.

The Ecological Roots of Family Therapy

Because of its systemic foundation FT has been rooted in ecology since its inception. Several of the early shapers of the field understood that there was a natural alliance between FT, as an emerging systemically based discipline, and ecological issues. One of these pioneers, Auerswald (1968, 1971), used the term ecosystemic FT to emphasize the importance of therapists addressing a range of contextual factors including the ecological context. He was concerned that human behavior was threatening to "turn our green earth into a planet which cannot support complex life forms like ourselves" (2003, p. 38), and he believed that if humanity were to develop a global culture that avoids creating ecological disasters we would need to undergo an epistemological transformation that FTs could play a role in fostering.

Auerswald explained that the epistemology that dominates modern society is dictated by a mechanistic paradigm that breaks reality down into parts that are viewed as separate and unrelated objects without allowing for a way to reconnect these parts into the unified whole from which they are derived. "All it can encompass is thinking about how the disconnected parts act on one another in a linear view of cause and effect and in such thinking the parts remain fundamentally disconnected" (Auerswald, 2003, p. 44). He called for an epistemological transformation whereby the mechanistic paradigm would give way to an ecological paradigm that "encompasses the domain of relationality and creativity and exposes disconnectedness" (Prosky & Keith, 2003, p. 49). He recognized the compatibility between the fields of FT and ecology and he argued that "we family therapists who have been concerned with the alleviation of distress and the prevention of death and debilitation in individuals and families may have some unique and important experience to report as a contribution to the necessary task of alleviating distress and preventing the debilitation and death of our species" (Prosky & Keith, 2003, p. 39).

Another pioneer of our field, Bateson (1972), also was fundamentally concerned with ecological issues and epistemological transformation. Bateson "saw ecological destruction as being caused by human linear conscious purposefulness and by our conviction that we are somehow separate from the rest of the living world" (Charlton, 2008, p. 5). Like Auerswald he believed that humankind was in need of an epistemological transformation that would involve "abandoning notions based on the primacy of human agency, primacy of human rationality, and primacy of human control" (Harries-Jones, 2002, p. 15) and would instead "build on an under-

standing of recursive communication, knowledge of which can overcome the divide in our thinking between humanity and nature" (Harries-Jones, 2002, p. 15).

As these shapers of the field understood with its systemic orientation family therapists are well suited to addressing the perils of our detachment from nature and abuse of the earth and developing strategies that can promote ecological reconnection, healing, sustainability, and equality at both the micro and macro levels. Yet, the field of family therapy has yet to manifest this potential. As one colleague told me, "I am a therapist, not an ecologist. I deal with couple conflict, poor communication, depression, anxiety, and trauma. I care about the environment, but I do not see how my work as a therapist has anything to do with global warming or nature preservation." Certainly the field as a whole has focused little attention on ecological issues.

A review of the MFT literature reveals only a handful of scholarly articles that address some aspect of this topic (Blumer, Hertlein, & Fife, 2012; Hertlein & Blumer, 2012; Hertlein, Fife, Blumer, Smith, & Card, 2010; Laszloffy, 2009; Laszloffy & Davis, 2018). Few MFT textbooks focus any significant attention on the ecological context. Despite a few exceptions, the majority of accredited MFT training programs do not address environmental issues or integrate the ecological context into their curriculum.

Laying Out an Eco-Informed Family Therapy

For FT to manifest its potential to be an eco-informed profession it is imperative to understand how the health of the ecological system and our relationship with it may impact our physical, mental, and relational health and wellness. This section lays out an eco-informed approach to family therapy that considers the influence of three factors: (1) a lack of contact with nature; (2) exposure to environmental trauma and toxicity; and (3) the link between all forms of oppression and exploitation that result in inequality and suffering. These ideas are expounded upon in forthcoming chapters.

Addressing the Effects of a Lack of Contact with Nature

A consequence of humanity's disconnection from nature is that for the vast majority of people daily life consists of limited, and in some cases, no sustained, meaningful contact with nature. While our ancestors spent their days moving their bodies to chase down prey, forage nuts and berries, gather raw materials, and craft shelters and clothing, the preponderance of modern humans live much more sedentary lifestyles defined by little to no nature contact. This separation underpins an escalation in physical, mental, and social illnesses. A growing body of research demonstrates that a number of physical and mental health problems are either triggered or exacerbated by a lack of nature contact and are often helped by having increased

exposure to nature (Berto, 2014; Largo-Wight, Chen, Dodd, & Weiler, 2011; Maller, Townsend, Pryor, Brown, & St Leger, 2006; Nisbet, Zelenski, & Murphy, 2011; Seymour, 2016; Townsend & Weerasuriya, 2010). Our detachment from nature is literally making us ill.

Therapists must be open to considering how a lack of contact with nature may be contributing to a clinical participant's (i.e., client, patient) symptoms. For example, how might depression, anxiety, stress, lethargy, difficulty concentrating, poor sleep, restlessness, and/or a sense of meaninglessness be tied to a lack of engagement with forests, fields, flowers, rivers, lakes, oceans, mountains, and nonhuman animals? Part of an eco-informed approach to FT would involve therapists asking these kinds of questions. Therapists also should possess some knowledge of and willingness to incorporate nature-based interventions into the therapy process, even in situations when the presenting complaints are not directly related to a lack of nature exposure. Such interventions may range from suggesting daily walks through a park or forest, or guiding clinical participants through meditative exercises while outside in nature, or inviting a clinical participant to tend a garden, to more elaborate practices such as engaging in a wilderness course or nature restoration service, embarking on a vision quest, or participating in an extended hiking/camping experience. Whatever the specific nature interventions that therapists employ, the key is that they must require clients to have some degree of direct, thoughtful contact with nature, and hence with themselves. As an example, the therapist working with Charlotte, a white, middle-class, early 30s, lesbian living in the Pacific Northwest, used daily disengagement from technology and immersion in nature to help Charlotte cope with stress related to a demanding new job. Every day after work, instead of playing "Words With Friends" to try and unwind, the therapist had Charlotte leave her phone in the house while she took a 30-min walk through a park across the street. After 3 weeks of faithfully following this activity, Charlotte reported feeling lighter and more and was sleeping better.

Addressing the Effects of Environmental Toxicity and Disruption/Dislocation

Humanity's disconnection from nature orients us to mistreat and abuse the environment and this has led to pollution and environmental toxicity, a dramatic rise in natural disasters and extreme weather due to climate change, and degraded or disrupted physical environments (e.g., where drought, flooding, or soil erosion due to climate change destabilize geographic areas and the communities situated in these areas; Doherty & Clayton, 2011). These conditions are associated with elevated levels of physical and mental illness and distress (Kuo, 2015; Martyn & Brymer, 2016; Obradovich, Migliorini, Martin Paulus, & Rahwan, 2018; Pretty, 2004). Consider the case of Hanna, a late-40s, working class, cisgender white woman living in the Northeast USA.

Hanna had endured debilitating levels of chronic pain while her doctors failed to identify the root cause of her suffering. Repeatedly her doctors told her that there was no physical basis for her symptoms and she should see a therapist to deal with her underlying psychological issues. “My doctors thought I was ‘crazy’.” It was not until she met with a doctor who specialized in environment-based illnesses that it was discovered she was suffering from the neurological effects of pervasive exposure to the pesticides that were used in the greenhouse where she had worked for decades.

This doctor explained that many of his patients came to him after disappointing and frustrating encounters with other doctors who, after ruling out the usual suspects in response to their symptoms, told them their best options would be to try psychotherapy or a pain management program. This is an especially common occurrence when the clinical participant is a woman or transgender-identifying. Despite the gender progress our culture has made, when the obvious causes are not the culprit, there is an unexamined and covert tendency for physicians to pathologize and psychologize physical complaints. In Hanna’s case, she had endured chronic pain for years while her doctors told her it was all in her head because they never considering environmental factors.

Several years ago I worked with a client, Hector, an upper income Mexican-American cisgender male in his early 50’s, who was dealing with depression, anxiety, and difficulty concentrating, yet he could not link his symptoms to any discernible catalyst. Hector had a stable and satisfying monogamous marriage, he enjoyed his work, he had positive relationships with friends and family, and in short, he liked his life. He was mystified about the source of his depressive and anxious feelings. As an admirer of psychoanalytic ideas, Hector wondered if he might be suffering from some deeply repressed trauma that needed to be unearthed and brought to the fore. I was open to exploring this possibility with him, but I also thought we should consider physiological and environmental factors that might be the basis for his symptoms. I asked Hector to visit a naturopath who specialized in environmental toxicity. He agreed, and sure enough, the results of his testing revealed that he had heavy metal toxicity. The naturopath prescribed a detoxification protocol combined with a tailored nutritional therapy regiment. After several weeks, Hector reported that his depressive and anxious symptoms had abated and he had increased energy, as well as mental acuity.

Just as environmental abuse creates toxicity that makes people ill, it also disrupts physical environments thereby causing havoc and trauma to those who are affected. For example, as humanity’s mistreatment of the environment continues to alter the climate, more and more people are suffering from exposure to the effects of extreme weather and natural disasters, some of which include the loss of one’s livelihood, home, and neighborhood, as well as injury and death. In some cases the severity of the adverse effects of changes in the physical environment turns people into environmental migrants or climate refugees. These are persons who have been forced to either temporarily or permanently exit their habitats in response to rapid or significant changes in their environment that have negatively affected their living conditions (Biermann & Boas, 2008). Exposure to the losses associated with extreme

weather, natural disasters, and disrupted/degraded geographic environments results in several mental health issues including major depression, somatic disorders, post-traumatic stress disorder, and alcohol and drug abuse (Basu & Samet, 2002; Doherty & Clayton, 2011; Fritze, Blashki, Burke, & Wiseman, 2008; Galea, Nandi, & Vlahov, 2005; Marshall et al., 2007; Van Den Berg, Grievink, Yzermans, & Lebret, 2005). Hence, humankind's abuse of the environment creates adverse conditions that boomerang back, inducing physical, psychological, and relational illness and distress.

The bottom line is, just as physicians need to become more vigilant about considering the impact of environmental factors on patient symptoms (Sears & Genius, 2012), therapists need to devote greater attention to examining the role that environmental conditions may play in the emotional, behavioral, and relational problems that bring people to therapy. This means that part of the assessment process must include considering how possible exposure to environmental contaminants and toxicity may be related to client complaints. To do this, therapists will need knowledge about the environmental health and viability of their local communities. This includes having some awareness of local industries and how these may be sources of potential pollution and contamination. Therapists also need to have relationships with other providers who specialize in assessing and treating conditions related to environmental toxicity.

In addition to considering how clinical participant complaints may be tied to environmental toxicity, therapists also must be increasingly knowledgeable of how to treat trauma wounds linked to experiences with geographic dislocation or destruction. This will be an increasingly common problem for people on this planet; thus part of an eco-informed approach to practice therapists must be aware of how environment-based trauma experiences create suffering and distress. They also will need to become familiar with the best practices for addressing injuries created by these types of traumas.

How Separation from Nature Is Tied to Domination and Oppression

Modern society teaches people to see nature as something that exists outside of us, separate from us, and as something that is here for us to use at our will. This perception paves the way for human beings to dominate, control, and exploit the earth and nonhuman animals resulting in much of the damage we now see. Since the forces of oppression are interconnected, the oppression of nature is tied to all other forms of oppression. As demonstrated by eco-feminist scholars, sexism, racism, classism, cisgenderism, heterosexism, capitalism, nationalism, colonialism, and imperialism are intertwined in a complex way that results in the powerful (e.g., whites, the wealthy, cisgender men, heterosexuals, colonizers, and humans) exploiting the less powerful (e.g., People of Color, those who are poor and working class, cisgender

women, gender, sexual and/or relational orientation minorities, first nation/indigenous communities, developing nations, nonhuman animals, and the earth itself) (Prouty & Twist, 2015).

There is a strong link between the abuse and exploitation of nature and the oppression of human beings based on their social location/minority status (Coates, 2003). "A logical consequence of the exploitation of natural resources is the exploitation of people. Both directly and indirectly, populations have suffered as a result of environmental damage" (Dewane, 2011, p. 20). For example, the homes of indigenous peoples are destroyed by deforestation and mining, poor communities (especially when they are People of Color) are disproportionately affected by industrial waste dumping, and developing nations are drowning in the industrial and electronic waste exported to them by Western nations.

> When an oil spill happens, when a chemical spill occurs, when a nuclear power plant needs a place for spent fuel rods, the first place people look is a poor community, one willing to take the filth for the money, one unable to fight it, one without any chance of pursuing legal action after it is slowly poisoned. That many low income communities consist predominantly of people with color is not coincidental: It is fundamental and key to this process, of shunting unwanted things onto minority communities...because you are less likely to matter to regulators, news agencies, environmental organizations (Smith, 2011, para 8–9).

To the extent that FTs are committed to promoting healthy relationships based on equality and fairness, therapists must be able to recognize and challenge the wide range of abuses of power, domination, and violence. Just as the field has become increasingly aware of the need to address oppression, inequality, and violence tied to sociocultural factors such as gender, race, and class, an eco-informed approach to clinical practice addresses issues related to the domination and abuse of the environment and nonhuman animals. Both inside and outside of therapy, eco-informed therapists are committed to addressing thoughts, behaviors, and patterns of interaction that reinforce violence against all, including the environment and nonhuman animals.

Coming Back to Norma Jean and Jimmy

In the case of Norma Jean and Jimmy we can see the impact of all three of the factors discussed in this chapter. First, both mother and son had been exposed to pervasive environmental toxicity. Norma Jean's family had lived for generations on land that ended up being only a few miles away from a pork production facility that housed thousands of pigs in intensive factory confinement. Because no federal laws require the safe processing and disposal of animal waste, pig feces and urine are collected in man-made lagoons. Starting in the early 1990s, producers started disposing of lagoon waste by spraying it out into the atmosphere. This practice subjected residents, who were mostly poor and African American, to noxious living conditions.

According to Norma Jean, "The spraying made it impossible to spend any time outside. The smell is unbearable and it makes you wheeze and burns your eyes." Research shows that people exposed to this spraying experience higher rates of respiratory illness, cancer (remember, Norma Jean's mother died of cancer), and high blood pressure, and they report significantly higher rates of burning eyes, tension, depression, anxiety, irritability, poor concentration, and lethargy in comparison to control groups (Kilburn, 2011).

To address the biological component of their toxicity exposure Dr. Elora referred them to an environmental medicine physician who found that Norma Jean suffered from chronic bronchitis while Jimmy had asthma, both likely induced by their pervasive exposure to polluted air. Visits with a functional medicine doctor also helped Norma Jean to implement lifestyle changes (diet/nutrition, exercise, mindfulness training, and botanical supplements) that would help to combat the adverse effects that their exposure to toxicity was having on their physical and mental health.

Second, the pollution in their community had cut the family off from the outdoors, resulting in nature deficit. As Norma Jean had stated, "When I was a child, before the spraying began, I loved being outside, it was my happy place, but Jimmy has no sense of the outdoors. From being locked inside all the time he is hooked on his video games. I was hoping he'd spend time outdoors now that we have moved, but instead he seems afraid of the outdoors." Even once it was possible for Jimmy to play outside, his negative associations with the outdoors led him to feel anxious and mistrustful of spending time outside, thereby deepening his nature deficit and the symptoms stemming from low to no contact with the natural environment.

As an eco-informed therapist Dr. Elora knew that spending quality time outside would be therapeutic for Jimmy, but first had to help him overcome his biophobia. Hence, Dr. Elora conducted individual therapy sessions with Jimmy outside while taking nature walks together on a trail near his office. During these walking sessions Dr. Elora engaged Jimmy in a process of noticing the nature around them. He often shared stories of his own youth and things he had learned from nature. Over time Jimmy's comfort outside increased until eventually he came to enjoy his time in the woods. Moreover, Dr. Elora often used Jimmy's nature observations as a vehicle for addressing a variety of issues. For example, when Jimmy wistfully observed a bird nest where it seemed that both the mother bird and father bird were caring for their young, he used this as a pathway to help Jimmy express the loss he felt around his father's absence from his life.

Finally, the family's protracted exposure to environmental toxicity was tied to a system of oppression based on race, class, and species. In Wallace, as in similar towns in the region, racism, classism, and speciesism all intersect such that those with power (whites, the wealthy, humans, and corporations) enslave, brutalize, and kill millions of pigs every year with no regard for their interests, needs, or well-being. The powerful also subject largely poor and African American communities, who are vulnerable on the basis of race and class, to the direct effects of environmental abuse with no regard for their interests, needs, and well-being. This

interlocking system of oppression and domination results in exploitation and abuse based on race, class, and species, and hence, it must be challenged.

Recognizing how the forces of oppression interlocked to affect this family enabled Dr. Elora to acknowledge these dynamics with the family. Norma Jean connected strongly with these ideas and started to give voice for the first time to the rage she felt about the ways that she and her family had suffered because of racism and classism. Expressing this rage was a key step in her healing process and from there, Dr. Elora encouraged her to explore constructive actions she could take to further channel rage. This led Norma Jean to join a class action lawsuit mounted by other members of Wallace in response to the ill effects that resulted from the environmental pollution. She also became a vegetarian not only for the health benefits, but also as an act of protest against the agribusiness industry's environmental, civil rights, and animal rights abuses. These acts of resistance and protest provided a potent antidote to Norma Jean's depression.

Conclusion

Now more than ever before we need agents of change who understand systemic principles. Family therapists have the opportunity to manifest the promise of systems theory by developing an eco-informed approach to practice that includes an awareness of the three factors discussed in this chapter and their possible role in shaping the issues, concerns, and struggles that bring clinical participants to therapy.

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Evaluating How Mental, Physical, and Relational Health Are Tied to Ecological Issues

Tracey A. Laszloffy

> *Nature holds the key to our aesthetic, intellectual, cognitive and even spiritual satisfaction.*
>
> —Wilson (1984, p.79)

Introduction

This chapter is rooted in the premise that human health and well-being are tied to the health of the ecosystem. If this premise is true, then it is little wonder that human health (mental, physical, and relational) is so fraught with distress and disease, after all, look at the state of our planet. Each day we hear about a litany of symptoms that express the extent to which our ecological system is abused, distressed, diseased, and in pain. Deforestation, ocean acidification, pollution, and unmanaged plastic, electronic, chemical, and livestock waste all translate into global warming, which accelerates incidences of extreme weather and natural disasters, rising ocean levels, unhealthy air and water supplies, contaminated foods, and a loss of habitats and species. The planet is suffering, and as it suffers, so too does humanity.

Thinking Ecologically About Our Health and Well-Being

Despite being systemic clinicians, the field of family therapy (FT) has remained woefully narrow with respect to our clinical conceptualization and approaches to treatment. Given the strained relationship that exists between humans and the whole of nature, it is vital for FTs, at long last, to find ways to think more ecologically about problems such as alienation, depression, anxiety, and a sense of

T. A. Laszloffy (✉)
Center for Relationship Healing, Norwich, CT, USA

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_3

meaninglessness and relational conflict. In this chapter, I (TAL) identify and discuss three ecologically connected factors for therapists to bear in mind when evaluating the health and wellness of our clinical participants. These are: (1) the impact of nature-deficit; (2) an addiction to technology and other secondary sources; and (3) exposure to environmental toxicity.

The Impact of Nature-Deficit

Much of human life now occurs within spaces that are dominated by concrete, steel, plastics, artificial lighting, climate control, electronics, asphalt, exhaust fumes, and smog. "Modern society, by its very essence, insulates people from outdoor environmental stimuli (Stilgoe, 2001) and regular contact with nature (Katcher & Beck, 1987)" (Maller, Townsend, Pryor, Brown, & St Leger, 2006, p. 46), and whether recognized or not, nature deficit can have adverse effects on our health and well-being. "Too much artificial stimulation and an existence spent in purely human environments may cause exhaustion and produce a loss of vitality and health (Katcher & Beck, 1987; Stilgoe, 2001)" (Maller et al., 2006, p. 46). As noted immunologist Dr. John Bienenstock explained, "our disconnection from nearby nature is a prime reason why allergies, autoimmune diseases, inflammatory bowel disease and even some forms of cancer have become epidemics. The same is true for mental disorders such as anxiety and depression" (Canadian Wildlife Federation; CWF, 2016).

For therapists, it is important to be attuned to the ways that clients may experience nature deficit and the possible consequences that minimal exposure to and engagement with nature may have on their overall mental, physical, and relational health and well-being. Hence, inquiring about the connection that clinical participants have with nature should become a part of the assessment process (see Table 1). By ascertaining how much clients are exposed to and engage with nature, therapists can better establish the extent to which nature deficit may be tied to presenting complaints. Nature deficit assessment also can help therapists determine how it may or may not be useful to utilize nature-based interventions to address clinical issues.

Interventions that engage clients with nature can be valuable on two levels. First, in cases where nature deficit is directly implicated in clinical participant complaints, prescribing nature engagement is an obvious antidote. As a caveat, it is important to be sensitive to situations where clients may have some aversion to nature thereby requiring gradual, gentle nature exposure that can help to transform rather than exacerbate nature-based fears or mistrust. Second, even in cases where the presenting complaints are not linked to nature deficit, nature contact tends to be therapeutic. Hence, therapists can use nature-based interventions to address a range of issues even when the presenting complaint is not directly tied to nature deficit. The following case demonstrates some of these points.

The Case of Kea and Kevin Kea and Kevin, a mixed race, middle-class, cisgender, gay couple, initiated therapy because they both reported that they had grown

Table 1 Assessment questions

As part of expanding the frame to consider how ecologically based factors might be linked to clients' issues, the following assessment questions are offered
Nature-deficit assessment questions
• Within the course of a given week, how much time do you spend outdoors?
• When you are outdoors, what activities are you typically engaged in?
• Do you enjoy spending time outdoors? If so, what do you enjoy about your outdoor time? If not, why do you not enjoy time spent outdoors?
• When you were growing up, to what extent, and in what ways did you spend time outdoors and interact with nature?
• What messages did you get about nature and the outdoors from your family when you were growing up?
• In what ways is nature a source of comfort, vitality, pleasure, positive challenge, and/or relaxation in your life?
• In what ways is nature a source of fear, mistrust, and/or negativity?
Technology addiction assessment questions
• How is technology a part of your daily routine?
• How much time do you spend each day on Smartphones, tablets, computers, or televisions? How would you answer this question for other family members?
• When you are separated from your devices, how does that make you feel…e.g., uneasy or anxious…relieved…bored)?
• To what extent does technology help you to avoid dealing with difficult emotions or directly relating with others?
Toxicity assessment questions
• How much attention do you pay to the chemicals that you have in your house (e.g., products used for household cleaning, laundry cleaning, personal hygiene, beauty/cosmetics, paint/paint removers, auto maintenance, and insect control)?
• Are you aware of the potential for home furnishings (carpets mattresses, furniture made from particle board, textiles, and curtains) and building materials (insulation and treated wood) to contain toxic chemicals (e.g., flame retardants)? How much awareness do you have of the composition of the furnishings and materials that comprise your residence?
• In what ways could you reduce your contact with products, foods, and spaces that may be potentially harmful in terms of their toxicity?
• What foods do you primarily consume? What is the source of the foods you eat?
• What toxic chemicals may be present in your work environment?
• What environmental hazards may have occurred and/or be present in your neighborhood and local community, and how might you possibly be exposed to toxicity as a result (e.g., are the toxins present in and therefore absorbed through contact with air, water, or land?)?
• For any questions asked above that you did not know the answers for, or had limited knowledge about, what steps could you take to deepen your knowledge?

apart and were suffering from chronic disconnection. When the therapist pressed for more specificity about each of their complaints, Kea said he felt uncared for by Kevin. "He works all the time and doesn't even see me. Last week I was sick and I could have used a little caring from him. He didn't even notice or lift a finger to help me out." Kevin said that his frustrations were as follows, "At work I have to hold everything together and keep everything on track, the last thing I want when I come

home is to be nagged to have everything perfectly in place. Kea can't relax. He needs everything to be just right. He can never chill."

As part of their general questioning the therapist found out that Kevin grew up in a family that spent significant time outdoors, and he greatly enjoyed outdoor experiences. "I love being out in nature, to hike, kayak, bike, which I used to do all the time. Once I really got into advancing my career all of that fell by the wayside. I do miss my outdoor time in nature." Kea, on the other hand, grew up in a family that spent virtually no time outdoors. He said he felt uncomfortable in nature. He stated, "I don't have any interest in getting dirty, or getting poison ivy, or being bitten by bugs." Guided by this information the therapist asked Kevin if he would be willing to make arrangements to take Kea on a day hike to an area that was very beautiful and provided a good balance of easy hiking with some challenges as well. The therapist told Kevin that his task was to focus on how it felt to reconnect with nature and his love of the outdoors, while also taking great care to be attuned to Kea's uncertainty, and to offer patient guidance, gentle reassurance, and support. To Kea the therapist said his task was to be open to the sensations of having a new experience where he was not in control of the environment, and therefore he might get dirty while leaning on his husband for guidance and reassurance when he felt uncertain or afraid. They were both reticent, but agreed.

In the session that followed their completion of the assigned task, Kevin began by saying that this experience had helped him to realize that he had lost something that was vital to his well-being. He had become so consumed with work that he had given up his relationship with spending time outdoors. In so doing, he had lost some essential vitality and he realized now that he had to make time for being outdoors because it revitalized his spirit and reminded him of the value in being alive. He also shared that because he knew how much Kea did not desire time outdoors in nature, he appreciated his husband's openness and willingness to allow himself to get messy, to fall down, to not know things, and to let him (Kevin) share his knowledge with him (Kea). Kea admitted that he was stressed at the start of the hike, but he felt comforted by how supportive, gentle, and caring Kevin had been. Kea said that Kevin's caring helped him to relax enough that he was able to notice the beauty and serenity of the nature around him. While it was initially uncomfortable to touch things like dirt, rocks, leaves, and tree bark, he realized nothing awful would come from it and he could clean up later. They each also expressed the pleasure of being in a place that had nothing to do with the grind of daily life. They both agreed they had spoken more during their hike than they had in a long time.

In this case the therapist used time spent outdoors to disrupt entrenched couple dynamics, yet other activities and venues could have been utilized to do the same thing. However, there is value in using nature-based activities and nature as a setting, as opposed to using other venues and activities. First, nature can be used metaphorically to reflect back and challenge patterns and dynamics clients may be struggling with. For instance, Kevin's retreat from and lost connection with nature mirrored the couples lost connection with each other. Also, nature provided an ideal vehicle for positively challenging the anxiety Kea felt to maintain control, order,

and cleanliness at all times. Second, as previously discussed, exposure to and engagement with nature are correlated with many positive health and wellness benefits. As such, whatever the presenting issue may be, using nature as a therapeutic resource to address client complaints can foster secondary benefits like reduction of related anxiety and irritability while also enhancing mood, providing stress recovery time, and improving concentration (Brown, Barton, & Gladwell, 2013; Joye & Bolderdijk, 2015).

Our Addiction to Technology and Other Secondary Sources

Human beings have basic needs that must be fulfilled including a need for connection, relatedness, autonomy, a sense of mastery, vitality, purpose, and meaning. For better or worse, throughout most of human history our ancestors had direct, sustained relationships with nature that enabled them to meet these basic human needs from primary sources that include such things as physical activity on a daily basis, access to fresh foods, a vital sense of community, a balance between personal choices and community decision-making, meaningful work-life connections, daily lives organize around rituals that reflect nature rhythms and cycles, and a spiritual connection with nature (Glendinning, 1995). Life in modern society does not lend itself to having regular access to and engagement with primary sources, which obfuscates our ability to satisfy our primary needs. This drives us toward secondary sources which include things such as substances like alcohol and other drugs, fossil fuels, sugar and processed foods, material goods, and technology (Glendinning, 1995). As long as our lives are more commerce than communion, more product than process, more us/them than we, more manufactured than organic, and more digital reality than nature reality, the more likely we will be to rely on secondary instead of primary sources to try and satisfy primary needs.

The problem with secondary sources is twofold. First, rather than fulfilling primary needs, ultimately they frustrate these needs, and second, they tend to play a part in our out of control related behaviors or what some term "addiction." For example, secondary sources like sugar, processed-foods, alcohol, and other substance are literally "feel good" sources that create momentary pleasure and satisfaction, but after the moment passes, what remains for many is a sense of emptiness and a longing for more to achieve the next "high." Addiction to these sources and the suffering this creates have become all too common. For example, sugar and processed foods addictions have created an epidemic of obesity and associated health problems, while in the last decade the rate of illicit and prescription drug overdoses has doubled, with opioid overdoses increasing 30% in 2017 (Brodwin, 2017).

In a different kind of way, the accumulation of material goods constitutes another "feel good" secondary source. People are addictively compelled to keep buying more and more things, most of which they do not really need, because the buying becomes a way to try to satisfy the existential emptiness and alienation that lurks in the shadows of the modern psyche (Etzoni, 2012). Unfortunately, constant buying,

otherwise known as advanced consumerism, does not lead to a deeper fulfillment. Like all out of control behaviors or addictions, for many, it ultimately deepens emptiness, while also creating a host of ills including escalating consumer debt, financial insolvency, and landfills overflowing with the waste from "stuff" that is discarded to make room for more stuff.

Technology may be the most complicated secondary source because it has so many undeniable benefits. It enables us to have contact with people from around the world and provides access to an astounding array of abilities and conveniences in terms of medicine, transportation, energy, travel, communications, and more (Raychev, 2018). At the same time, however, technology can be highly addictive, which poses a risk to physical, mental, and relational health and well-being. Everyday devices like smartphones, tablets, computers, and video game consoles make it easy to fall prey to excessive engagement with these devices which can lead to information overload, heightened fatigue and burnout, disruptions in the body's natural clock which disrupts sleep, altered brain chemistry and hormones, impaired stress response time, disrupted attention, impeded ability to complete operations and control emotions, and pulling people away from physical activity and time spent outdoors (Hicks, 2016). Screen exposure can also be hyper-arousing. It raises dopamine, the neurotransmitter most involved in dynamics related to addictions (Kardaras, 2016). Moreover, the more time people tend to spend interacting with technology, the less time they tend to spend outdoors in nature. This is especially the case among today's youth, as reflected in the following case example.

The Case of Jared Jared was an 8-year-old Korean-American cisgender boy whose father, Paul, brought him to therapy to address recent changes in his son's otherwise cheerful and engaged disposition. Over the last few months he noticed that Jared seemed more and more withdrawn and sullen. Paul found it increasingly difficult to get Jared to talk with him. Paul became especially concerned when Jared started refusing to engage in activities that he had formerly enjoyed, including getting together with his friends and playing outdoors. During our conversation, Paul shared that a few months earlier he had purchased a tablet for Jared to assist him with his school assignments. At first the tablet seemed to be helping Jared academically; however, at some point he started using it to play video games. Jared's growing attachment relationship to his device was increasingly worrisome to Paul (see Hertlein & Twist, 2018a, 2018b for more on attachment relationships to technology). He was using it to play games to the exclusion of nearly all other pursuits. Yet Paul had backed away from trying to curtail his son's use because doing so always resulted in Jared becoming enraged.

I (TAL) strongly suspected that Jared was heading toward an all out digital "addiction." I was familiar with the brain imaging research that has demonstrated how the part of the brain that controls executive functioning and impulse control, the frontal cortex, is affected by screen exposure in the same way that it is affected by stimulants like cocaine. Realizing the dangers of his Jared's excessive screen exposure time, we devised a detoxification plan that involved removing any exposure and access to screens of any type in their house. Fortunately, because it was early in

the summer break, Paul did not have to contend with the risk of Jared interfacing with screens at school. I warned him that this detox period probably would last about a month while Jared's hyper-aroused nervous system reset itself. I told him things would be rough for a while because Jared would likely experience withdrawal symptoms. In fact, the first 2 weeks were exceedingly difficult on both Paul and Jared, but after a month he reported that Jared's mood had improved greatly and was spending more time with friends and outside.

As this case demonstrates, secondary sources can be quite addictive, and technology, particularly where children are concerned, can be especially problematic because it also tends to correlate with a disengagement from nature. Therefore, therapists must assess clinical participants' relationship with secondary sources, especially technology, and how this may be tied to a disconnection from nature (see Table 1).

The Literal Sickness of the Environment

Context shapes reality, hence if our context is sick, in this case our ecological context, then we too will be sick. In so many ways, our environment is riddled with toxicity, some of it naturally occurring (lead, mercury, and cadmium), but the preponderance of it is human-made (bisphenol A: BPA, pesticides, phthalates, polychlorinated biphenyls: PCBs, perfluorinated compound: PFC). To paraphrase Dr. Alejandro Junger (2012), people who breathe the air, eat the food, and live in the cities, suburbs, or rural areas of today are experiencing toxicity. Toxicity is present within all life on the planet, and we are now experiencing a staggering escalation in the volume and pervasiveness of toxins emanating from both industrial and commonplace consumer sources.

Industrial wastewater, agricultural runoff, sewage, and industrial effluents all contaminate groundwater supplies, lakes, rivers, waterways, and oceans, while the burning of fossil fuels and agricultural emissions pollute the air resulting in smog, acid rain, ocean acidification, and global warming. Our soil is contaminated by industrial waste that is dumped into landfills where toxins accumulate and degrade the fertility and biological activity of soil and by the excessive use of chemical fertilizers and pesticides. Our food supply is polluted when the plants and animals we consume have been contaminated by fertilizers, pesticides, antibiotics, or bacteria which is then passed on to humans who consume tainted produce and animal flesh (Madden, 2018).

In addition to industrial pollution, at the individual level humans also inhale, ingest, and absorb through our skin toxins that are found in the consumer goods and products that we interact with on a regular basis. For example, beauty products and cosmetics, deodorants, toys, apparel, carpeting, mattresses, upholstery, furniture, countertops, detergents, household cleaners, kitchen supplies, nonstick cookware, food packaging materials, metal can liners, petroleum-based plastic water bottles and containers, building insulation, paint, degreasers, and dry cleaning chemicals

are just some of the products that contain toxic elements. As single units the toxicity contained in each individual product may be minimal, but when combined in total this can add up to a hefty dose of exposure to toxins that may compromise our health and well-being.

Pollutants have infiltrated every part of the ecological system. As one example of this, researchers have found fragments of packaging, paints, nylon, polyester, and cellulose acetate (used in making cigarette filters) in every core sample of sea ice that has been collected from five regions in the Arctic Ocean. The record amount of plastic that is now trapped in the Arctic sea ice harms fish and birds who frequently mistake plastics for food. These contaminants are then passed along to humans through the food chain (Taylor, 2014). Whether it is through the food we eat, the products we use, or the places we live near, it is estimated that the average human comes in contact with thousands of potentially harmful chemicals every day, and carries measurable levels of several hundred synthetic chemicals in their body. "These contaminants did not exist prior to the twentieth century and they have no role in our body chemistry….all of us are burdened with a toxic load from exposure to synthetic substances: pesticides, phthalates, trans-fatty acids, benzene, trihalomethanes" (Junger, 2012, p. 43).

Exposure to environmental toxins is associated with a variety of health problems including endocrine, thyroid, and reproductive disruption, various cancers, elevated total cholesterol and high blood pressure, headaches, memory loss, and cognitive confusion, as well as damage to blood, lungs, kidneys, liver, digestive, reproductive, metabolic, neurologic, and immune system functioning. Even low dose exposure to any of these toxins during fetal development pose risks such as prematurity, low birth weight, visual impairment, cerebral palsy, and cognitive impairment (Mascarelli, 2012; Stadtner, 2014). Pervasive low-level exposure to toxins also is associated with a wide array of mental and neuropsychiatric disturbances such as depression, anxiety, irritability, hyperactivity, aggression and impulsive behavior, attention and concentration problems, memory problems, learning problems, and reduced problem-solving abilities (Brown, 2016; Lanoix & Plusquellec, 2013).

Unfortunately, we often lack the requisite diagnostic tools to accurately access when and how our physical sickness is caused by exposure to polluted land, air, water, food, physical spaces, and consumer products. Even less well understood is how exposure to environmental toxicity affects our mental and relational health. However, there is an uptick in research that is beginning to make transparent how environmental toxicity is tied to things like depression, anxiety, attention and memory problems, irritability, and aggression (Lustig, 2018).

The Case of the Reynolds Family Danetta and John Reynolds were a working-class African American heterosexual cisgender couple in their mid-30s who initiated therapy to address concerns regarding their 7-year-old cisgender son Tyler. According to John, "Tyler was always a very well-behaved boy who knew how to act right, but in the last year he's changed. He's irritable and acts up for no good

reason. He doesn't listen, he can't seem to sit still or pay attention, and he's also been having a hard time in school, which wasn't the case before." In cases like these physicians and therapists too often diagnose the child in question with attention deficit disorder and prescribe Ritalin, or some other psychotropic medication to control behavior. In this case, however, the therapist knew to be inquisitive about potential environmental conditions that may be contributing to Tyler's emotional and behavioral problems.

After asking a series of eco-oriented questions the therapist learned that almost a year ago John repainted their home. This entailed sanding down the window and door frames, as well as the kitchen cabinets. After further probing the therapist ascertained that their home had been built in the late 1960s when lead-based paint was still in use. If it so happened the original paint had not been removed, then the sanding that John did could have released lead particles into the air, which would have been toxic, especially for a young child. Hence before assuming a typical behavioral health treatment plan the therapist asked the Reynolds to have Tyler tested for lead exposure. The results revealed that indeed Tyler was suffering from lead toxicity and hence his doctor immediately prescribed a chelating agent to detoxify Tyler's system. Several months later the Reynolds reported that Tyler's was back to being his old self again.

As the case of the Reynolds highlights, toxicity is pervasive in modern society, yet we give so little weight to this factor when we diagnose and treat illness and suffering. In my practice, I have encountered countless clinical participants who are suffering from a variety of physiological symptoms that their doctors cannot explain. When these clients are cisgender female or transgender-identifying persons, almost always their doctors recommend that they seek therapy to address the underlying psychological issues that must be at the root of their physical ills. This response psychologizes biologically based problems. Unfortunately, the medical profession has a longstanding tradition of trivializing the symptoms of gender minority clients and attributing them to hysteria or neuroses. While I cannot prove it, I strongly suspect that in many cases, the symptoms my clients are suffering from are linked to underlying environmental factors that have not been accurately identified. This is not to say that they do not also manifest mental health symptoms, because many of them certainly experience depression, anxiety, irritability, and so forth. The issue here is one of directionality. While psychological factors can and do induce physiological problems, it also can work the other way.

In terms what this means for FTs, the overarching point is that it is vital to be more attuned to environmental factors and to assess how toxicity may be linked to clinical participants' physical, mental, and relational health problems (see Table 1). Therapists also need to be positioned to work collaboratively with other healthcare professionals, such as environmental and functional medicine physicians and naturopaths, who specialize in alternative methods and ecological issues.

Conclusion

In this chapter I addressed three overarching areas related to evaluating how aspects of mental, physical, and relational health are tied to ecological issues. Thus, this chapter calls for therapists to widen their frame of reference to ask questions, formulate hypotheses, and assign interventions that consider how ecological factors may be tied to the issues that clinical participants bring to therapy.

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Eco-Informed Couple and Family Therapy, Systems Thinking, and Social Justice

Pilar Hernandez-Wolfe

We won't have a society if we destroy the environment.

—Margaret Mead (Baer & Singer, 2014, p. 23)

When Berenice and her sister Laura migrated to the USA at ages 9 and 10, they were brought to the Northwest of the United States (USA) where their father and older brother worked as seasonal farmers. Their mother stayed in México with the three youngest children. The girls were abruptly moved from a rural farm-like home to a suburban home where a white US couple had adopted a Central American girl and wanted her to have friends from a similar culture who would also speak Spanish. Berenice and Laura were left at this home after their brother told them they were going to have breakfast with family friends. While their material and academic needs were attended to and the home was welcoming and friendly, the girls had lost their mother, siblings, and all their chickens, dogs, cats, pigs, birds, and other little animals that inhabited the farm. They had lost a home where they played outside and got dirty, where they could go to the creek and feel the water touching their skins. In this new home, everything had an order, a different order; everything had to be kept in a certain way and the family had no animals with them. Gardening was the job of a stranger, a Mexican man whose exclusive responsibility was to make the garden look "pretty."

When Berenice and Laura came to therapy to address family conflicts with their oldest brother who at the time refused to speak to them, our work involved looking back and reexperiencing a migration journey that led to the loss of a deeply ingrained way of life in which they had deep connections with the land, their animals, their

This chapter is a reprint with minor modifications from: Hernandez-Wolfe, P. (2018). Ecoinformed couple and family therapy, systems thinking, and social justice, *Ecopsychology,* 10(3), 151–157, published by Mary Ann Liebert, Inc, New Rochelle, NY. https://doi.org/10.1089/eco.2018.0009.

P. Hernandez-Wolfe (✉)
Lewis and Clark College, Portland, OR, USA
e-mail: pilarhw@lclark.edu

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_4

mother's plants, and the creek. Their mother was not only warm and nurturing, but they associated her with the plants in their humble home; she taught them how to feed the animals and cook for the family. Most therapists working from a "multicultural perspective" would appreciate the cultural loss and the diversity and justice dimensions of the girls' situation; but would they see their relationships with the land and other beings as central to their traumatic migration story? Couple and Family therapy (FT)—and other mental health fields—needs to consider these relationships within the context of their people's history, gender struggles, class oppression, and racism. In this chapter, I (PHW) outline key epistemological and social issues contributing to the ways in which the field of FT has remained anthropocentric. I also discuss how both Gregory Bateson and a decolonization perspective offer a biocentric view in line with ecological systemic thinking.

Dualism and Its Contribution to Anthropocentrism

In Western thinking, mind and matter are considered to be two ontologically separate categories and, as exemplified by Descartes, neither can be reduced to the other in any way; the mind is equated with the conscious self and the body belongs to the physical world. In structural philosophy, binary opposition is a fundamental organizer of human language and thought. In science, there is a dichotomy between "subject" (the observer) and "object" (the observed). Typically, one of the two opposites assumes a role of dominance over the other because the categorization of binary oppositions is often value laden. Binaries imply other binaries (e.g., north and south imply good and bad, developed and underdeveloped). While modern science regards conscious experience as inseparable from the physical brain—mind and brain being the same—dualism is deeply embedded in the way Westerners think, speak, and articulate our experience at academic, professional levels and in everyday life. The words *mindfulness* and *mind-body* (as in mind-body approaches), used in research and in self-help literature, affirm the mind/body dichotomy. Furthermore, FT is a western European and historically English-language dominated endeavor. Over the years, ecopsychologists (Buzzell & Chalquist, 2009; Roszak, 1995) and anthropologists (Bateson & Bateson, 1987; Descola, 2005) have pointed out the disastrous epistemological and social consequences of dichotomizing nature and humans.

A major concern is the extent to which dualistic thinking, so foundational to Western thought, has historically involved power and domination. Since the Enlightenment, European men have sought to separate nature from humans and men from women. Encounters and collisions with other cultures led to further separations: savage and civilized, light and dark, etc. Nature was seen as a passive and reversible phenomenon with parts that could be disassembled and functions that could be described in terms of laws. Nature became something to dominate and control. This view has been a template for relationships between those who defined

themselves as white, cisgender heterosexual men and those of diverse genders and other "races," classes, and sexual orientations.

The subject/object dichotomy and the "objectivity" derived from it resulted in the *hubris of the zero point,* or the arrogance of the observer (Castro-Gomez, 2010). In Western philosophy and sciences the subject that speaks is always hidden from the analysis under the guise of objectivity. The supposedly truthful and universal knowledge thus generated conceals the geographical, political, social, and epistemic locations of knowledge production. The mostly white western men and, increasingly, women who claim objectivity observe, use, dissect, and discard nonhuman beings. They separate themselves from the beings with whom they often cruelly experiment.

Finally, the assumption of dualism between observer and observed and the belief that objective truth can be reached are connected to the ability to measure. Boaventura Santos (2009) states that giving mathematics a central role in modern social science means that scientific work is valued according to its precision, accuracy, and thoroughness of measurement. Furthermore, the scientific method is based on reducing complexity. Therefore, the "object" studied is reduced to the characteristics that are quantifiable; knowing means dividing and classifying in order to understand the relationships between the parts of the object initially dissected.

Historically, systemic family and couples therapy has not escaped dualistic thinking. Family and couples therapy—the generic term for approaches based on broad systemic principles such as strategic, structural, Milan, post-Milan, feminist, intergenerational, and solution-focused—continues to follow traditional binaries of gender and the dualisms and hierarchies associated with race, and it certainly has rarely if ever considered any other beings besides humans in its conceptualizations of family systems. Notable exceptions include some of the field's founders such as Bateson, Maturana, and Valera, none of them therapists.

White (2011) and other narrative authors claim that narrative approaches reject the notion that knowledge is the product of the opposition of subjects and objects and that there is only one way in which knowledge can be constituted, relationships with nonhuman beings, space and nature in general is not addressed in the corpus of his work. We rarely see dialogue with non-western epistemologies in any of these approaches. Another example involves "ecosystemic family therapy": the word "ecosystemic" has never included any nonhuman beings or nature. Its corpus is entirely anthropocentric. However, poststructuralist influenced FT approaches such as narrative (Dickerson, 2015) and collaborative (Madsen, 2014) question and wonder to protest against normative ways of thinking, they focus on appreciating clinical participants as experts in their own lives and co-creating alternative ways of being. They have potential for breaking the long-standing dualism that has made relationships with nonhuman beings invisible by utilizing the poststructural position/belief in multiple identities (Dickerson, 2015).

A critique of dualism in FT is necessary to develop a new and different relationship between scientific knowledge and other forms of knowledge—a relationship based on equity, access, and equal opportunity for other ways of living, knowing, and relating, which will allow us to coexist and create other possible worlds that offer more justice, democracy, and balance with the natural world (Boaventura

Santos, 2009). It is my contention that the training of therapists must deconstruct the problem of dualism in the field and move toward a truly relational perspective inclusive of the relationships humans have with the land and other beings as a central component of the therapy process.

Standpoint Epistemology: A Path to Open Other Epistemological Foundations

Feminist scholar Susan Hekman noted that "feminists cannot overcome the privileging of the male and the devaluing of the female until they reject the epistemology that created these categories" (1990, p. 8). She argued that the dualism must be rejected, the epistemology abandoned, the hierarchy displaced, and the search for one correct path to truth abandoned (Hekman, 1990, p. 39). Feminist standpoint theory and the notion of epistemic privilege (Narayan, 1988) have been crucial in helping the marginalized move beyond exploring their realities to interrogating and theorizing them. Standpoint feminists concur with poststructuralists that knowledge is situated and perspectival, and that there are multiple standpoints from which knowledge is and can be produced; however, they disagree with many poststructuralists' contention that all accounts are all possibilities or that they are simply different ways of thinking.

Feminist scholars (Harding, 2008; Lugones, 2010) have reminded us that we always speak from a particular location within power structures. Nobody escapes the class, sexual, gender, spiritual, linguistic, geographical, and racial hierarchies of the "modern/colonial capitalist/patriarchal" world-system. These hierarchies affect our relationships with nature and all nonhuman beings, from the ways animals are kept in captivity to be viewed by humans in "zoos" and "aquariums," to the horrors of the meat trade, to our relationship with animal companions in our own homes. How might these larger issues impact somebody's life?

I met John in my private practice when he was in his early forties. He grew up in Southern California at a time when his family was able to own a piece of land where they had many animals. When John was 8 years old, his father gave him a piglet to raise. John developed a deep bond with his companion animal and called him Buddy. Pigs are very smart and receptive to human connection (Marino & Colvin, 2015). When Buddy became an adult John's father took him and Buddy to the country fair. Unbeknownst to him, Buddy was sold for his meat. John remembered having a knot in his throat; he could not talk, he could not cry. He simply witnessed with great pain his father's nonchalant attitude and ways of raising a boy. These memories stayed with him, hidden from view, until we discussed masculinity and how he was raised as a cisgender, heterosexual man in his family. In looking back at how masculinity was modeled for him, John realized that his father taught him that being a man involved objectifying animals and stripping them of their beinghood. In so doing, nonhuman animals could be made in products that yielded profits. They were stripped of beinghood, which eliminated the possibility of having a meaningful relationship with them. Consequently, John's attachment to Buddy was charac-

terized as a weakness and his feelings as feminine and inappropriate for a boy. This kind of objectification and disruption of connection is part of a continuum of violence that teaches that nonhuman animals do not have feelings, consciousness, and rights of their own.

Specifically, feminist standpoint theory states that social location systematically influences our experiences, shaping and limiting what we know. What we know is learned and known from a particular standpoint. Knowledge is embodied rather than acquired through a universal, disembodied, rational mind. That embodiment entails the kind and quality of connection we have to the spaces we inhabit and to any other beings who inhabit those spaces, and even to what is missing in the spaces we inhabit (e.g., sunlight, plants, color, trees, aromas, and water). Social inequalities generate corresponding accounts of nature, and the social relationships and inequalities between different social groups result in differences in their standpoints. For example, when we separate ourselves from that which sustains us, we allow the possibility of forgetting our responsibility and kinship to the earth. We can view nonhuman beings as "resources" to be used for our own benefit and take without thought of the consequences. When we are attuned to how animals and plants grow, the cycles of life and death, and how everyone's survival on the planet is connected, we may have relationships with other beings that honor and nurture these connections.

Wylie (2003) defined standpoint as "a critical consciousness about the nature of our social location and the difference it makes epistemically" (p. 31). However, standpoint epistemology needs to go further to acknowledge and articulate the standpoints of nature and other beings. It is a human articulation of course, but it can express a standpoint from which humans are not the center of the planet but only a component in relationship with everyone and everything else. For example, some humans have moved from the horrifying Descartian assertion that animals are machine-like non-sentient beings to declare that "the absence of a neocortex does not appear to preclude an organism from experiencing affective states." In the Cambridge Declaration on Consciousness, a prominent group of neuroscientists, neurophysiologists, neuroanatomists, and computational neuroscientists, including Stephen Hawkins, gathered at the University of Cambridge and asserted that:

> Convergent evidence indicates that non-human animals have the neuroanatomical, neurochemical, and neurophysiological substrates of conscious states along with the capacity to exhibit intentional behaviors. Consequently, the weight of evidence indicates that humans are not unique in possessing the neurological substrates that generate consciousness. Non-human animals, including all mammals and birds, and many other creatures, including octopuses, also possess these neurological substrates (Panksepp et al., 2012, p. 3).

Perhaps in the case of plants, this means accommodation, adaptation, and sensitivity to human actions. In his book *The Botany of Desire*, Pollan (2001) shows how people and domesticated plants have formed a reciprocal relationship in which humans' desire for sweetness, beauty, intoxication, and control is satisfied by plants such as the apple, the tulip, marijuana, and the potato. Gagliano, Mancuso, and Robert's (2012) research in the field of plant neurobiology shows how plants have ways of taking all the sensory data they gather, integrating it, and responding

accordingly. They do this without a brain. Thus, we shall not assume that one needs a brain to process information.

A social justice and liberation stance that takes as its departure point the embeddedness of our lives and the lives of all other beings on the planet necessarily implies caring about the well-being of other beings, engaging in advocacy and activism, and in constructively imagining of how healing can occur in relation to other beings. Situating ourselves in concrete geographical spaces as beings who are entangled with the lives of all other beings on the planet would extend our capacity to relate, ground us in the here and now, transform our notions of self, encourage humility, and make us more responsible for the well-being of all.

Bateson's Contributions Toward Biocentrism in Couple and Family Therapy

(Bateson & Donaldson, 1991; Bateson, 2000) believed that the tendency to think of mind and nature as separate indicated a flaw at the core of western human consciousness. For him, the environmental crisis involved an "epistemological fallacy": believing that mind and nature operate independently of each other. Perhaps we can think of "subject" and "object" as co-arising; and of knower and known as standing in relation to each other through mutual co-origination. He argued that nature is a recursive, mind-like system, with information its unit of exchange. Bateson introduced the notion that mental activity occurs in all living organisms and nonhuman processes. The mind is an "ecology of ideas," or a set of integrated and interacting parts that can process information by identifying differences that make a difference. Thus the mind can be seen as a process shared by all beings—not only humans. Based on his observations and understanding of humans' connection with nature, he argued that nature is made up of circular steady-state systems, and he asked, "What pattern connects the crab to the lobster and the orchid to the primrose and all four of them to me? And me to you? And all the six of us to the amoeba in one direction and to the backward schizophrenic in another?" (Bateson, 1979, p. 7). Nature shows us the connectedness of all life in the cycles and chains of food and energy; the whole system responds to change and at the same time is prone to remain balanced and stable. The human mind–brain–body is itself situated within a complex web, interacting with other mind–brain–bodies and with nature and nonhuman beings.

For example, Nina, a heterosexual cisgender 30-year-old European American, and Tony, a bisexual, cisgender 32-year-old Puerto Rican male, both from low socio-economic status, find themselves struggling with their relationship after 2 years of marriage and 7 years together. Tony served 8 years in prison 1 year after meeting Nina. While in prison, he volunteered for Prison Paws, a program in which selected inmates train rescue dogs from the local area for public adoption. Shortly after his release from prison, Tony adopted Max from the local shelter, a 3-month-old German shepherd mix puppy. He did so without consulting with Nina

who did not welcome the puppy, and after she became frustrated with the training process, she asked Tony to get rid of Max.

These three beings are in relationship, sharing space in a small apartment located in a densely populated area near a park. Their relationships with each other involve internal relations whereby each constructs the other and behaves accordingly. The relationships between Tony and Nina, Nina and Tony, Tony and Max, Nina and Max, and Max and Tony and Nina are embedded in all of them as qualities of each of them. When Nina seeks distance from Max by asking Tony to remove him from the bedroom and other spaces when she is there, we have a partial view of the nature of their interactions; when she shares that she feels that Max comes between her and Tony and is taking away attention from her, we have a partial view of the quality of relationship she has with Tony and with Max. Likewise, when Tony cuddles and plays with Max and states that his bond is one that he knows well from his companion animals as a child and in prison, and that it is different from the kind of bond he has with Nina, we have a partial view of how they categorize their interactions and how they have learned to connect differently with each other. We must strive to understand how these beings react with each other and others in the spaces they inhabit, and how such reactions are shaped by perceptions and expectations from all sides.

The common thread is context: each organism can survive only as organism-in-its-habitat; each is a part of the loop, and in every interaction, there is a stimulus-response that constantly reinforces, positively or negatively, their relationships. Thus, their patterns of attachment matter as much as his experiences as a man of color, her experiences as a white woman, their experience as an interracial couple, the ways SES shapes their lives, and the space they inhabit: a small apartment, a crowded neighborhood lacking green areas and affordable healthy food, lots of noise, and the potential ongoing vigilance of police force.

Bateson writes of the sacred unity (1988)—the invisible connections that bind living organisms with varying degrees of complexity—as a mental process and an inherent part of life. He adds, "It is the context which evolves" (2000, p. 155). It is not the individuals, the data, the content of our descriptive notation that should be the focal point, but rather the relationship between the message and the context, the ecology of the situation in which the message is delivered and the context out of which the message is coming that must be considered.

Colonization, Decolonization, and Our Relationship with Nature and Nonhuman Beings

The decolonization perspective articulated by the Latin American modernity/coloniality collective project and by Chicana feminists (Lugones, 2010) offers us a conceptual framework for articulating how the world looks to some of us when we know, experience, speak, and imagine it while situated in the dwellings of double consciousness, border thinking, and subaltern epistemologies. This decolonization perspective also helps us resignify the multiple, overlapping, and divergent but

coexistent patterns of our relationships with nature and nonhuman beings, ethnicity, gender identity, race, sexual orientation, and epistemic and economic relationships.

Peruvian sociologist Quijano (2000) argues that colonization involves constructing the *other* in such a way as to extend oppression. For example, institutions of education study others by inviting them to contribute to the institutions' knowledge building efforts; at the same time the institutions keep the status of those others in society marginalized and value their contributions only when they become part of larger dominant discourses that reinforce the powers in place. Today colonial relationships persist, mutated through discourses, symbols, and collective representations of social differences that privilege some over others. How we imagine the other and how we relate to one another, the land, and nonhuman beings is at the forefront of such discourses. According to Mignolo (2005), coloniality refers to the systemic suppression of subordinated cultures and knowledges by the dominant Eurocentric paradigm of modernity, and the emergence of knowledges and practices resulting from the experiences of suppression and subordination. Knowledges and practices at the margins have the potential to engender distinct alternatives thereby fostering a pluriverse of cultural configurations. According to Cajigas (2010), coloniality produces not only subjectivities, but also a dualistic view of the social and the natural world that underlies the development of capitalism and consumerism. This view is expressed in the language of "progress," "development," and "growth." The pursuit of the centuries-old goal of economic expansion has resulted in the degradation of biophysical systems all over the world—the result of careless overexploitation of lands and oceans, and the lack of justice in the relationships between the One-Third and the Two-Thirds. Pervasive globalization has made visible other ways of being and healing. Ancestral knowledge of the medicinal properties of plants, appropriate use of the land, and healing rituals of the Two-Thirds are now vulnerable to appropriation and exploitation by the One-Third.

Cajigas (2010) traces changes in the relationship between humans and nature over time in the west. He agrees that nature was seen as something exterior in the west, but notes that, beginning in the 1950s, there was a change in the language and conception of nature, prompted by impending drastic changes in the planet such as global warming and a decrease in the ozone layer. The increased use of the term *environment* indicates that nature is included in discourses about sustainable development. Embedded in this discourse is the idea of scarcity and the end of "natural resources," in conjunction with the idea that the global south is a place of ignorance, poverty, and ecological disaster. This idea of scarcity is also connected to a voracious desire to consume more and more, cheaper and right away. In the 1980s biotechnology took the lead in extracting, manipulating, and changing organisms at molecular and genetic levels. At the local level, these changes have had an impact on FT because they have changed families' choices with regard to food types and prices and to land use, including whether to garden and raise animals. In her book

Good Thinking, Cummings (2012) discusses a 2004 study published in the *Journal of the American College of Nutrition* that compared the nutritional content of 43 different fruits and vegetables in 1950 and 1999. The results showed that the amount of protein, calcium, phosphorus, iron, riboflavin (vitamin B2), and vitamin C have declined substantially over the past half century. This decline in nutritional content resulted from agricultural practices designed to improve food qualities such as size, growth rate, and pest resistance rather than nutrition. The explosion of obesity in this country has much to do with biotechnology, agricultural practices, race, class, and our relationships with nature and nonhuman beings. At the international level these issues materialize, for example, in the patenting of traditional remedies that were identified, developed, and used by indigenous peoples and mestizos. Through these "legal" venues, pharmaceutical, cosmetic, and food companies take away the sustenance of these peoples and the right they have to their ancestral and local knowledge. There are important exceptions. Some companies have actually developed trade agreements that encourage local farmers in other countries to improve their techniques and get paid a fair price, as in the case of coffee. The following vignettes illustrate issues for a family and a community in two different parts of the world.

Andrea and Sally married recently but have been together 20 years. They both work and have a dog and a cat. Their 15-year-old child Katie was never fully comfortable with their body and assigned gender and began transitioning a year ago; he now goes by Frankie. However, the family's transition was challenging because of Frankie's ongoing struggle with depression, and Andrea's struggle at times with severe anxiety. Sally is a social activist involved in many causes over the years, and at the time was fighting companies that sold unlabeled genetically modified food (GMO) in grocery stores. In therapy, Sally's knowledge and experiences with social struggles were used as a framework to tell how community organizing, support, and personal and collective resilience could be used to give Frankie and the family hope in the transition process. For example, the idea that social struggles take time and people make long-term commitments to each other and their cause; that people recruit and seek out community of interest and concern to help them personally and with their cause; that letter writing can be used to document interpersonal change; or that having in mind the "light at the end of the tunnel" helps stay on course to achieve a desired outcome.

In southern India the Kani tribe's knowledge of medicinal plants led to the manufacture of an Ayurveda medicinal product for athletes called Jeevani. This agent, which counteracts fatigue and stress, is taken from the arogyapaacha medicinal plant. Indian scientists at the Tropical Botanic Garden and Research Institute (TBGRI) sought the expertise of the Kani tribe's medicine men on the plant. Then the scientists developed Jeevani and filed two patent applications. A trust fund was established in order to distribute among the Kani the benefits resulting from the commercialization of the medicine.

Eco-Informed Therapy: A Shift in Paradigm Toward Biocentrism

Systemic therapists play an important role in fostering diverse family configurations by being responsive to queer, race, and class issues and by including space, nature, and nonhuman beings as integral to human communities. *Just and loving* relationships heal. Joana Macy stated that "when we open ourselves to the web of life, we connect not only with the sufferings of others, but to the same measure, with their gifts and powers. We experience synergy" (1983, p. 32). Love exists when we take care of our homes. "Home" involves the beings that inhabit the spaces we share: the plants in the gardens; the trees in the parks; the structures where we eat, live, and sleep; the places we go to learn; the places where we commune spiritually; the fields where we exercise; the quiet spaces in and outside our minds where we meditate; the loud spaces where we dance. We sustain what we love and we take care of it. We commit to working together in the limited space we share called planet earth.

Encounters with another being can result in novel experiences that expand our cognitive domains. An expression of biological interpersonal congruence allows us as humans to see another being and open up room for their existence beside us. Without love, without acceptance of others living with us on this planet, ultimately there can be no social process, no humanness, and no planet. Varela's enactive cognitive science attempts to apply some of the original insights and epistemological implications of autopoiesis more broadly. He writes that "neurophenomenology" (Varela, 1996) is grounded in the intention to progressively and systematically decrease the distance between subjective and objective, and between the mental and the physical. From an economics perspective, it is worthwhile to remember Gintis and Bowles's research (1980) on reciprocity. It shows that people are generally not merely self-interested actors, as portrayed in traditional economics; the humans in their studies valued treating others fairly and would incur personal costs to do so. Strong reciprocity implies *fairness* or *sharing*—the notion that, all else being equal, there should be a rough balance of rights and obligations in social exchange. Gintis and Bowles remind us of two basic human motivations: to collaborate and share with those who have a similar disposition, and to give others the minimum they need to survive.

Finally, Duran, Firehammer, and Gonzalez (2008) insist that therapists pay attention to how, in this age, colonization is accomplished not only with guns and threats, but also through people who change the hearts, minds, and spirits of others by promoting their own belief systems to oppress others. Therapists have the duty to avoid acts of colonization. A part of the therapeutic endeavor should include a questioning of systems of domination and subordination across and within groups and in relation to the natural world to open conversations towards liberation.

Conclusion

Human survival depends on our effectively relating to everything that surrounds us. By continuing to consider only a human perspective on relationships, power, history, and community, we fail to see ourselves in relation to all beings on the planet. Ecological justice entails acknowledging the interconnection and interdependence of all beings. It promotes the dignity and right to self-determination of all living beings. It affirms the importance of developing sustainable economies that benefit all life within a finite world by supporting equality and a fair distribution of resources, by working in harmony with the environment, and by respecting the inherent value of all life on earth. Guided by a social justice and liberation standpoint, it has been argued here that FT approaches must move towards becoming eco-informed and eco-integrated in a manner that incorporates advocacy and activism while constructively imagining how helping, supporting, and healing can occur in relation to other beings. FTs are encouraged to resist dualism and the tendency to divide the world into discrete either/or categories and instead, to adopt a holistic and truly systemic perspective that approach the process of change and healing in ways that recognize our relatedness to all life on the planet and that honor the rights add value of all living beings.

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Children and Nature

Sarah A. Hechter and Stephen T. Fife

Unless someone like you cares a whole awful lot,
Nothing is going to get better. It's not.

—Dr. Seuss (1971, p. 56)

Introduction

For most of the human history, children and adults have lived in intimate contact with nature. As societies have become ever more urban and industrialized, the experience of regular, meaningful contact with nature has become increasingly foreign to more and more people. Yet, even with massive cultural shifts that have deepened the human–nature disconnect, children have almost always found ways to discover and interact with aspects of nature, whether by exploring country forests and fields, or by climbing park trees alongside darting squirrels and birds. Today's generation of children, however, probably have the least amount of contact with nature than any previous generation, which is directly correlated with escalating levels of engagement with technology. The days of fort building, bug catching, and backyard football are disappearing rapidly as children spend most of their childhood inside and online. For many children living within modern society, nature has become a special occasion, not a daily experience. Louv (2005) coined the term *nature-deficit disorder* (NDD) to describe the alienation from nature that has become so commonplace in modern society. He explained that the human cost of this alienation includes "diminished use of the senses, attention difficulties, and higher rates of physical and emotional illnesses" (p. 26). In this chapter we explore how children's disconnection

S. A. Hechter (✉)
Addo Recovery: Rainbow, Las Vegas, NV, USA

S. T. Fife
Texas Tech University, Lubbock, TX, USA

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_5

from nature and extensive involvement with technology are linked to prevalent issues such as depression, anxiety, attentional difficulties and attention-deficit/hyperactivity disorder (ADHD), obesity, and poor interpersonal/social skills. We also include recommendations for clinical intervention.

Both of us (SAH and STF) share a love of nature, enjoy a number of outdoor activities, and believe that humans have an important responsibility to care for the environment. I (SAH) was raised in a desert landscape with many opportunities to connect with the outdoors. I developed a passion for the outdoors through learning to fish with my family and camping and hiking with friends. I continue to spend time outdoors largely through hiking in national parks and fishing as a form of self-care. I (STF) grew up in a large, religious family in a small California town and spent a great deal of time playing backyard and school sports, exploring the fields behind our home, and camping in Yosemite. I continue to enjoy spending time in the outdoors, fly fishing, and visiting national parks with my wife and children.

Children and Nature

Experts in academia and public policy widely agree that time outdoors in nature is generally good for people (von Benzon, 2011). The amount of time children spend in nature largely depends on family attitudes and environmental factors. Children who consistently spend time in nature have heightened sensory skills (sight, sounds, smell, taste, and touch) and an enhanced ability to detect similarities, differences, anomalies, and so forth (Wilson, 1994). Exposure to natural spaces also stimulates children's creativity, imagination, and inventiveness. In nature, children have landscapes upon which they can project their own meanings and interpretations. Through nature exposure, children find a space where they are free to express what is within themselves. As stated by Richard Louv,

> Unlike television, nature does not steal time; it amplifies it. Nature offers healing for a child living in a destructive family or neighborhood. It serves as a blank slate upon which a child draws and reinterprets the culture's fantasies. Given a chance, a child will bring the confusion of the world to the woods, wash it in the creek, turn it over to see what lives on the unseen side of that confusion. Nature can frighten a child, too, and this fright serves a purpose. In nature, a child finds freedom, fantasy, and privacy; a place distant from the adult world, a separate peace (2005, p. 7).

Yet, despite the benefits that children derive from having regular, sustained contact with nature, today's children and adolescents are spending significantly more time indoors and less time outdoors. One of the primary reasons for this growing separation from nature is the extent to which children and youth are involved with technology in general, and digital media in particular (Clements, 2004).

Children and Technology

Children today spend an inordinate amount of time engaged with digital technology, more than any previous generation (Twenge, Joiner, Rogers, & Martin, 2018). Parental attitudes have a significant influence on children's access to and use of technology. Rideout (2017) reported that the percentage of households with children aged 0–8 years who have access to mobile devices (e.g., Smartphones and tablets) has increased, rising from 52% in 2011 to 75% in 2013 to 98% in 2017. Furthermore, the percentage of children aged 0–8 years who have used some kind of mobile device rose from 38% in 2011 to 72% in 2013 to 84% in 2017. Research indicates that 90% of children below the age of 2 watch some kind of electronic media, based on parental reports (Raman et al., 2017). Another study (Rideout, Foehr, & Roberts, 2010) reported that children between 8 and 18 years old spend about 8 h online per day—the amount of time that most adults spend at work each day.

Certainly there are benefits that come with technological advancements and increased access to technology by children. For example, some scholars suggest that children are empowered through their use of digital technology and social networking, as it fosters independence and prepares them for the future employment landscape (Craft, 2012). Other studies found that when utilized in moderation, with developmentally appropriate software and adult supervision, computers have been found to improve independent interaction and self-directed learning in toddlers (Hinchliff, 2008). Furthermore, computers and social media serve as vehicles for broadening social connections, making friends, and keeping in touch with friends and family (Hertlein & Blumer, 2013; Schoffstall & Cohen, 2011).

In spite of the benefits that technology affords today's children and youth, there are a host of risks associated with high doses of exposure to screen-based media (e.g., television, game consoles, computers, and handheld devices). Increasingly, research is demonstrating how the regularity with which children stare at screens is changing the neural and chemical compositions of their brains (Hicks, 2017). According to Dr. Soong Chi Mei of the KK Women's and Children's Hospital, children who use technological devices more than 2 h a day are at risk of developing attentional and short-term memory problems, impulsivity, obesity due to a lack of physical exercise, "postural Kyphosis" (hunchback syndrome), and struggles with fine motor skills development (e.g., handwriting) because they use less traditional play activities like blocks, play dough, and so forth (Chumari, 2018). Chief among the risks of an excessive engagement with technology is a corresponding disengagement from nature.

Effects of Disconnection from Nature

Given how vital nature is to human health and well-being, it should not be a surprise that with the loss of a connection with nature, so many of today's children and adolescents experience a range of physical, psychological, and social aliments

(Balmford, Clegg, Coulson, & Taylor, 2002; Pergams & Zaradic, 2006; Sackett, 2010). In the following section we examine some of these issues.

ADHD and Attentional Problems

ADHD is one of the most common childhood psychiatric disorders, affecting about 10% of United States (US) children (Center for Disease Control; CDC, 2018). The body of evidence continues to mount demonstrating that excessive exposure to technology at an early age is linked to children's attention problems. Some research has shown that children who are exposed to a high amount of television in the first year of life have an increased probability of experiencing attention problems by age 7 (Tong, Xiong, & Tan, 2016). A survey of high school aged children found a significant association between video games or Internet use and inattentive behaviors (Chan & Rabinowitz, 2006). Parents face a difficult challenge in balancing their time between necessary tasks and providing attention between children. Parents often use television or tablets to help manage this balance. However, the overuse of media screens in young children is harmful to the development of their focus and attention. Furthermore, adolescents who spend a high amount of time on the Internet have more deficiencies in attention than their peers and are more likely to exhibit symptoms of ADHD (Kavakci et al., 2012).

Clinicians treating children with ADHD or symptoms of inattentive behaviors should examine their client's use of technology and its impact on individual as well as family/relational system functioning. Parents who have a child with ADHD tend to experience high levels of stress, depression, poor communication skills, and marital conflicts (Jahangir & Batool, 2017). Nature and exposure to green spaces can be a tool that therapists utilize when treating cases that involve inattentiveness and ADHD. Exposure to nature enhances attentional capacity, improves concentration, and increases impulse control in children with ADHD (Greenleaf, Bryant, & Pollock, 2014). Specifically, outdoor play in children with ADHD has been shown to improve the child's behavior in family, school, and social activities (Kumari Sahoo & Senapati, 2014). Children who play outdoors also experience improvement in their attentiveness and focus, whether they play alone, with a friend, or in a group (Harder, 2004).

Depression and Anxiety

Among many of today's children and adolescents an inverse relationship exists between outdoor time and technology time such that the more time kids spend with technology, the less time they tend to spend outdoors and engaged in physical activity (McCurdy, Winterbottom, Mehta, & Roberts, 2010). A number of studies

highlight that increased usage of technology among children and adolescents is correlated with higher rates of depression and suicide (George, Russell, Piontak, & Odgers, 2018; Peper & Harvey, 2018). According Twenge (2017), teens who spend five or more hours online each day have significantly higher risk of depression and suicide risk factors. Her work demonstrated that compared to teens who spend more time on non-screen activities (e.g., sports, religious activities, print media, and in-person social activities), teens who rely heavily on-screen activities (e.g., computer games, texting, social networking sites, and Internet) are more likely to report feeling unhappy. Along with increased incidence of depression in teens, increased screen time (particularly, social media) is associated with higher rates of anxiety, social isolation, insecurity, and feelings of inadequacy (Panova & Lleras, 2016).

Just as higher rates of exposure to and contact with screens are correlated with higher rates of depression and anxiety, studies demonstrate that among children and adolescents, participation in outdoor physical activities and spending time in nature have positive mental health effects (e.g., enhanced confidence and self-esteem, decreased depression, and anxiety) (McCurdy et al., 2010; Sackett, 2010; US Department of Health and Human Services, 2018). Other studies indicate that doses of nature can be as effective as medication in treating depression (Greenleaf et al., 2014), and increased contact with the natural environment is associated with improved self-esteem and mood (Pretty, Peacock, Sellens, & Griffin, 2005). Furthermore, proximity to green spaces is associated with better physical and mental health (Arnold, 2012), including some alleviation of anxiety and depression (Gascon et al., 2015).

Obesity

The CDC (2017) reports that 12.7 million children and adolescents are obese. There is a general discourse that technology largely contributes to childhood obesity given that children spend more time sitting in front of media screens instead of outside walking and playing with their friends. Parents often accept media screens and technology as an activity for their children, rather than encouraging more active ways to spend their time. Inactive leisure activities popular with children, such as watching television or playing video games, are contributing to a sedentary lifestyle and resulting obesity (Silverstone & Teatum, 2011). In fact, up to 60% of childhood obesity is due to overuse of technology (Rowan, 2010).

Therapists who see cases of childhood obesity should assess how much time children and teens spent inside versus outside, participating in physical activity, and sitting in front of media screens (Hope, 2001). Children who spend a majority of their time physically inactive and immersed in technology are more at risk of obesity, and obesity has detrimental effects on children's psychological well-being and dynamics within the family system. Consequently, prescribing outdoor time is a way of increasing the likelihood that children and teens will engage in physical activity (Dyment & Coleman, 2012), and this tends to be a key factor in

helping kids to increase their level of physical activity and maintain a healthy weight (Gill, 2005).

Impaired Social Development

Just as reduced engagement with nature and increased technology use negatively affects the physical and mental health of children and adolescents, there also is a corresponding negative impact on their social and interpersonal skill development (Sackett, 2010). Today's youth use various forms of technology to communicate with their peers and others (Eleuteri, Saladino, & Verrastro, 2017; Farber, Shafron, Hamadani, Wald, & Nitzburg, 2012). Although texting, email, and social networking sites can facilitate communication, scholars have identified social anxiety and social isolation as risk factors associated with social media use by adolescents (Farber et al., 2012). For instance, research shows a steep decline in the amount of time teens get together or go out with friends. As Twenge (2017) noted, less time with peers means less time spent "building social skills, negotiating relationships, and navigating emotions" (p. 72). Twenge also reported that "teens who spend more time with their friends in person are happier, less lonely, and less depressed, while those who spend more time on social media are less happy, lonelier, and more depressed" (p. 299). An excessive reliance on technology in relationships is leading to an increasingly disconnected generation of youth in which many interact with others primarily through the medium of electronic devices.

On the other hand, increased exposure to nature environments, particularly in social situations, can have a positive influence on the social skills development of children and youth. For example, Peterson and Boswell (2015) reported that increased contact with the natural environment is associated with a better ability to navigate social situations. Several studies have reported positive personal and social developmental benefits for children and youth who participate in outdoor adventure programs (Bowen & Neill, 2015; Jirasek, Roberson, & Jiraskova, 2017; Scrutton, 2015). Furthermore, family outdoor activities also provide opportunities for children to develop social skills (Jirasek et al., 2017).

Interventions

In some cases the issues and problems that bring children to therapy are very much tied to a lack of nature contact, which is often correlated with excessive engagement with technology. In these cases, it is especially important for therapists to employ interventions that help children and families engage with nature (and reduce time spent with their devices). However, even in cases when a lack of nature is not tied to the presenting complaints, generally speaking, clients benefit from the utilization of nature-based interventions. Change in children is most likely to occur

when the change is part of larger changes in family patterns around technology use and efforts to increase experiences with nature. Nature-oriented interventions have been shown to have positive effects on psychological wellness, interpersonal functioning, and overall physical health (Flaskerud, 2014; Miller, 2014). Furthermore, therapists who consider the ecological context have more information to consider and resources to use during assessment and treatment (Blumer, Hertlein, & Fife, 2012; Laszloffy, 2009). This section will discuss nature-based interventions that can be applied in therapy with children to address a variety of concerns such as attentional problems and ADHD, depression, anxiety, obesity, and poor interpersonal skills.

Assigning Outdoor Time

Since many common presenting problems among children are tied family patterns that support lack of contact with nature, as well as excessive interactions with technology, eco-informed therapy with children begins with simply getting families to spend more time outside; playing, exercising, and just being in nature. Parents should be encouraged to participate with their children. Getting children to spend more time outdoors and less time attached to their devices requires parental cooperation. Therefore, therapists may need to spend some time helping parents understand the correlations between low nature contact and various problems, and how enhanced nature exposure is correlated with improvements in cognitive, emotional, and behavioral functioning. It can also be helpful for therapists to administer a formal assessment to demonstrate the extent to which children may experience a nature-deficit (Louv, 2005). Parents, who can recognize if their children are experiencing a nature-deficit, are more likely to cooperate with homework geared toward getting kids outside to move, play, explore, and reflect in nature.

There are a variety of ways that therapists can prescribe increased time outdoors, but the most basic is by requiring that families take a walk outside every day. Such walks can occur before school, as a way to get to school, during lunchtime recess, or after school before starting homework. It is also useful to guide families to engage in activities outside that require physical exertion, whether through organized sports, playing tag, or gardening. Whatever homework therapists assign to increase children's nature exposure, the key is being concrete and specific in their assignments. A simple and casual suggestion to "get into nature" is too vague for most people. Parents need specific ideas and clear directions on how and when to get "au natural" with their kids. This involves writing down tasks, giving examples when needed, and working with the parents to find out what is possible given their geographical location and financial abilities. Telling families to go plant a garden is very different than giving them a list of resources, handouts, or diagrams on *how* to garden (Guian, 2017).

Using Nature Metaphors

The use of metaphors in therapy is well established and nature provides a plethora of opportunities for utilizing metaphors therapeutically. Metaphors are commonly used in therapy to help clinical participants describe abstract feelings and patterns that they notice in themselves. There are seemingly infinite ways therapists can use nature metaphors with children to help address depression and anxiety, to enhance resiliency, facilitate problem solving skills, increase self-esteem, and encourage prosocial development. For instance, therapists may choose to equate the ups and downs of life to the movement of the waves in the ocean to demonstrate how negative emotions can accumulate and dissipate. This metaphor could be used to challenge a clinical participant's belief that her or his life is *always* bad. Like the ocean, things are always changing. Another common example of using nature as a metaphor for children would be to equate anger to a volcano. Therapists can teach children about how volcanoes build up pressure until they explode. A child who needs to develop emotional intelligence around anger may find this metaphor useful in understanding how suppressed anger can lead to unwanted explosions. Depression could be described as a cloud that follows clients around and blocks out the sun and joy in their lives. The therapist might ask a client to describe moments when light broke through the darkness, or they noticed the sun peeking out from behind the cloud.

Nature-Based Art Therapy

Art therapy with children and families allows clients to use creative, nonverbal methods to connect with and express underlying thoughts, feelings, and experiences. Nature-based art therapy may consist of asking clinical participants to make art with materials obtained from nature (leaves, pinecones, seashells, bird feathers, pieces of bark, etc.). Using materials drawn from nature connects children with the natural world that provides a rich buffet of images, sounds, smells, tastes, and touches that can stimulate children's unconscious minds and help them to access and express parts of themselves that may be much harder to reach through traditional talk therapy. Nature-based art therapy may also involve directing children to create art that depicts aspects of nature (Speert, 2016). For example, a drawing of a pathway through a forest can represent a journey, and a stormy day can represent unpleasantness or trouble, while a flower can represent growth or new life, and a butterfly can represent change (Sweeny, 2017). Like metaphors, art provides infinite ways for children to reflect on their emotions and relationships, and to deepen their self-understanding.

Wilderness and Adventure Therapy

Wilderness and adventure-based approaches have been shown to offer a range of mental and physical health benefits for children and families. These therapies involve significant direct, sustained contact with the outdoors whereby therapists use the innate challenges and risks of the natural world to help clinical participants confront their fears, insecurities, distorted beliefs, and unhealthy behavior patterns so they can experiment with new ways of thinking, emotionally responding, and behaving. Both approaches have been utilized to treat various problems, including eating disorders, behavioral problems, low self-esteem, anxiety, and family/relational system conflict (Davis-Berman & Berman, 1994; Fisker & Carstensen, 2006).

Wilderness therapy fosters endurance and adaptability through the use of basic skills that can be translated to addressing emotional, behavioral, and interpersonal problems. An overarching goal of wilderness therapy is to disrupt unproductive beliefs and damaging behaviors through the wilderness exploration, primitive skills training (e.g., primitive fire starting), and team building exercises. Wilderness therapy mimics the challenges and pressures found within families/relational systems and society, while teaching participants how to deal with these pressures through employing clear communication, establishing healthy boundaries, and accepting and processing feedback while relying on their own sense of inner knowledge and resiliency. Such experiences, along with cooperative skills and trust building exercises, have participants working together to complete tasks, which in turn builds more effective communication skills and fosters feelings of competence and greater self-efficacy (Becker, 2010).

Adventure therapy involves the use of emotionally and physically challenging outdoor activities such as cooperative group games, ropes courses, or wilderness expeditions where participants face both real and perceived physical and psychological risks that therapists capitalize upon to help bring about change. Therapists work with clients to formulate meaning about their experiences that can support emotional shifts and behavioral changes. Often wilderness and adventure therapy programs require a significant commitment in terms of time and finances, which may be a barrier for some.

Although adventure and wilderness therapies may not be accessible to every therapist, the tenets of this practice can be adapted to be used in more traditional therapy settings. For instance, therapists who are able to meet clients in an outdoor space can facilitate activities such as an obstacle course, a puzzle, or a game that encourage the family/relational system to practice using problem solving skills. These activities also provide an opportunity for parents to practice giving instructions to their children, and for family members to practice effective communication skills. Therapists can also assign homework whereby families/relational systems, on their own, engage in a particular outdoor adventure together that incorporate communication and/or problem-solving skills learned in therapy. In sessions following this they would describe what happened, how they handled various challenges, and what they learned through this experience.

Conclusion

As children and families/relational systems stray deeper from their connections to the natural world while becoming more dependent on a technological, sedentary lifestyle, they are at increased risk of experiencing physical, mental, emotional, and interpersonal challenges. Systemic therapists need to consider the societal, planetary, and ecological contexts within which their young clinical participants are situated so they better understand their disconnection from the natural world and utilize nature-focused interventions when appropriate. In this way, therapists can promote more sustainable practices for our planet, while also addressing common clinical issues in children and families with nature-based interventions.

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Clinical Applications of an Eco-Informed Approach to Therapy: A Systemic Perspective

Katherine M. Hertlein and Sarah A. Hechter

One touch of nature makes the whole world kin.

—William Shakespeare (Shakespeare et al., 2017)

Introduction

Today, I (KMH) elected to park in a spot far from my building on campus. I thought this would be the best place since, immediately after my 11:30 am meeting, I would be rushing off to yet another meeting off-campus. The more accessible my vehicle was to me, the better. An hour or so later, I realized I left something important back in my car. Initially dismayed at the notion I had to walk across campus to retrieve it, I hustled out of my office and hurried across campus to my car. Along the way, I began to take notice of the things around me. I could feel warm sunshine on my head and arms. I moved past plants and trees, and was able to smell their fresh leaves. I noticed my gait slowed. I started to think "What if I parked away from my office regularly - have myself a built-in walk twice daily?" By the time I got to the car, I enjoyed the little trip out of the office so much that I dawdled a bit on the way back, looking around, trying to identify plants along the way, and watching others.

I (KH) grew up in Chicago, so it was not until later in my doctoral program that I developed a passion for nature through the sites in Southwest Virginia. Hiking in the mountains up to the waterfalls, hearing the sounds of the woods, and finding peace in a different world were calming and very grounding for me. As I transitioned into a faculty role at the University of Nevada, Las Vegas, I missed the open air and greenery of Virginia, but found a quiet beauty of the desert—very different, but also very calming. Instead of the hum of insects and rustling trees, the beauty of the

K. M. Hertlein
University of Nevada, Las Vegas, NV, USA

S. A. Hechter (✉)
Addo Recovery: Rainbow, Las Vegas, NV, USA

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_6

desert Southwest is within its vast expanse and silence in grand spaces. In both of these experiences I have learned to appreciate nature in very different ways.

In contrast, I (SAH) spent my childhood in Las Vegas hiking, camping, and rock climbing in the many state and national parks near the valley. I have experienced the powerful restorative properties of nature through my adventures in the outdoors. This has led me to work with nature in therapy. I believe there are endless opportunities to connect my clinical participants, in varying degrees, to their natural surroundings as part of helping them achieve their therapeutic goals.

Human beings are a part of nature, and yet, life in modern society reinforces a false notion that humans exist separate from and outside of nature. Our reliance on technology contributes to the disconnection many humans experience in relationship to the natural world. Because human beings are a part of nature, having regular exposure to and meaningful contact with nature plays a key role in fostering overall health and wellness. Unfortunately, because so many people live their lives virtually cut off from having regular, meaningful nature contact, they are at a greater risk of experiencing what Richard Louve (2005) refers to as "nature-deficit disorder." A growing body of research is demonstrating that many of the common complaints that bring people to therapy, such as depression, anxiety, fatigue, difficulty concentrating, and hopelessness, may in part be tied to a lack of nature contact (Bratman, Hamilton, Hahn, Daily, & Gross, 2015; Greenleaf, Bryant, & Pollock, 2014; Moxham, Liersch-Sumskis, Taylor, Patterson, & Brighton, 2015). Following this logic through, it would benefit therapists to be aware of the role that nature, or a lack of nature, may be play in the issues their clinical participants present with in therapy. Additionally, since contact with nature often has therapeutic effects, it would be helpful for therapists to be knowledgeable about how to employ clinical interventions that incorporate nature (Bazzano, 2013; Jordan, 2014).

Ecology as the Basis of Family Therapy Practice

A foundation of eco-informed family therapy (FT) is the premise that humans and nature are not separate and distinct entities, but instead are interrelated. Stevens (2010) noted, "The environment is not a scene through which we move, but the medium within which we are embedded. It tells us we are an integral part of the place we are in, shaping us, connecting us, guiding and constraining (pg. 266)." By virtue of living in an age when there is so much disconnection between people and nature, individuals and families are bearing the symptoms of this separation. More and more we are beginning to see and understand how connection or disconnection with nature is linked to levels of stress and overall mental, as well as physical wellness (Sackett, 2010). For example, findings reported by various researchers show that active engagement with nature is correlated with a reduction in anxiety, depression, and mental fatigue, and an improvement in how subjects perceived their personal health, self-esteem, and sociability (MacKay & Neill, 2010; Maller et al., 2006).

Several studies have demonstrated that children who lacked nature exposure in their home surroundings displayed higher levels of stress than children whose home environments consisted of higher levels of nature exposure (van den Berg, Maas, Verheij, & Groenewegen, 2010; Wells & Evans, 2003). Similar findings were reported with respect to adults (Berman, Jonides, & Kaplan, 2008; Guite, Clark & Ackrill, 2006). A study by Kuo and Sullivan (2001) demonstrated that adults who had a view of concrete from their homes were more aggressive than adults with a view of gardens or nature. The implications are significant for therapists working with families/relational systems struggling with heightened levels of aggression.

With both individual and relational presenting problems, it is important for therapists to consider: (1) how a lack of contact with nature may contribute to the problem; and (2) even if a lack of nature contact is not tied to the problem, how the inclusion of nature in therapy may be part of the solution.

Strategies for Incorporating Nature Into Clinical Practice

In this chapter we present various ways that FTs can begin to incorporate the ecological context into their work with clinical participants. A variety of eco-informed approaches to assessment and intervention are presented. We conclude by discussing a case where the presenting issues were not tied to nature, but where the therapist was able to incorporate nature-based interventions to treat the presenting complaint.

Making Nature Part of the Therapy Space

Even before focusing on clinical practice issues it is important to consider the physical space where therapy takes place and more specifically, to consider how well the physical space reflects and incorporates nature. There is research that demonstrates that physical spaces that reflect aspects of nature are positively correlated with lower blood pressure and stress levels (Ulrich, 1992). Further, contact with or views of nature have been linked with helping to divert worry thoughts and promote faster recuperation from stress (Devlin & Arneill, 2003; Edvardsson, Sandman, & Rasmussen, 2005).

Referred to as "restorative environments" (Hartig & Staats, 2003; Nisbet, Zelenski, & Murphy, 2011; Stevens, 2010), physical spaces that are designed in eco-friendly ways tend to help people reach a baseline level of functionality that is better able to resist stress and boredom. Many elements can influence an eco-friendly design of an office space. Malkin (1991) lists scale, fluidity of indoor and outdoor space, materials, acoustics, and lighting as some important factors to be considered when designing a patient-centered care space. Other ways that therapists can incorporate nature into the therapy space include providing a view of the natural environment or natural light from a window, or even viewing nature by way of tech-

nology, all of which has been shown to have positive health outcomes (Devlin & Arneill, 2003; Greenleaf et al., 2014). Introducing plants and adding artwork depicting nature scenes, especially scenes of water, have been shown to promote positive feelings, reduction in worrisome thoughts, reduces blood pressure, increases muscle relaxation, and promotes client well-being (Ulrich, 1992). Even more creative options could include using natural elements to stimulate the senses, such as having couples and families/relational systems place their feet in sand, soil, water, or using aromatherapy.

Another way therapists can directly incorporate nature in the therapeutic process is by employing what Rutherford (1995) describes as a "Walk and Talk." The therapist and clinical participant engage in the activity of simply walking and talking outdoors. Walking outside is thought to promote healing, freedom of expression, and a simplistic focus on issues (Rutherford, 1995). It has also been shown to help in the treatment of depression and anxiety, and in generating a heightened sense of hopefulness (Bratman et al., 2015; Greenleaf et al., 2014; Moxham et al., 2015). Therapists using this modality reported this intervention helped to develop the therapeutic relationship, created a more equal power dynamic, and allowed the clinical participants to "get out of their heads and into their bodies," which helps to reconnect with their capacity and joy for living (Revell & McLeod, 2016). Additionally, this intervention involves gentle exercise which naturally increases endorphins, heightens positive energy, and increases clarity of thought (Revell & McLeod, 2016). This may be a good option for therapists who cannot always trade the office for a natural setting.

Another way to make nature part of the therapeutic space is by conducting sessions outside. Berger and McLeod (2006) explained that unlike the typical office space, the natural environment is a space that both precedes the clinical participant, as well as the therapist, and will continue to exist long after sessions end thereby reflecting a sense of continuity. Further, therapy outdoors allows for a transformative experience that occurs in a space that is not owned by the therapist or decorated according to the therapist's taste. It can help clinical participants take responsibility and ownership over their healing, as well as allows for the creation of a therapeutic alliance with more flattened hierarchies than the traditional therapy space allows (Berger & McLeod, 2006).

Eco-Informed Assessment

In terms of clinical practice, before therapists embark on incorporating nature into clinical practice it can be useful to gather information that illuminates a clinical participant's overall connection to and relationship with nature, which may impact their openness to engaging in nature-based interventions (Greenleaf et al., 2014). If clients have a fear or mistrust of nature, therapists need to know this for at least two reasons: (1) it can help guide therapists away from interventions that may unnecessarily arouse distress; and (2) it may be beneficial to address the fear or mistrust

directly to the extent that it may be tied to the clinical participant's issues. What follows are several instruments that therapists can use to assess various aspects of a clinical participants' relationship with nature.

Love and Care for Nature Scale The Love and Care for Nature Scale (Perkins, 2010) is a 15-item rating scale. The scale items are rated on a seven-point Likert scale ranging from one (disagree strongly) to five (agree strongly). The scale is designed to measure a person's love and caring for nature. This information may be helpful for the therapist in deciding what types of nature-based interventions are best for the clinical participant. A person who has a low score on this scale may not particularly benefit from or enjoy a nature experience such as camping, but a person with a high score on this scale might find much benefit and healing in that experience. This scale will help the therapist navigate the clinical participants' openness to nature and gauge which types of interventions are best for the clinical participant based on this information.

Nature Relatedness Scale The Nature Relatedness Scale (Nisbet, Zelenski, & Murphy, 2009) is a 21-item rating scale using a five-point Likert scale that is designed to measure a person's self-perceived relationship with nature by assessing their cognitions and experiences of nature. The Nature Relatedness Scale provides insight into the relationship that clinical participants have with their environment. The authors of the scale have demonstrated that the higher one tends to score on the scale, the higher one scores on factors such as positive effect, autonomy, personal growth, self-acceptance, and a sense of purpose. Conversely, the lower one scores on the scale, the lower one also scores in these other areas (Nisbet et al., 2011). Hence this scale can provide useful information about a client's overall sense of well-being and the type of relationship they have with nature, with the idea that the more they connect clients with nature, the more likely they are to experience positive gains in their relationship with themselves.

Sensual Awareness Inventory The Sensual Awareness Inventory (Burns, 2000) is designed to assess how much attunement people have with their environment, specifically with nature, and in what ways nature is a source of pleasure or enjoyment for them. This inventory can either be presented during the first session as an assessment tool and it also may be used later as an intervention aimed at enhancing a sense of aliveness, pleasure, and connection by tapping into the restorative, regenerative aspects of nature. Clinical participants make six columns labeled: sight, sound, smell, taste, touch, and activity, following by listing ten to twenty items or activities that give them pleasure, enjoyment, and comfort. After clinical participants complete their lists, the therapist processes the information with them using three steps:

Step 1: Ratifying what learnings were gained from completing the inventory.
Step 2: Determining how those learnings can be used for continuing therapeutic gain.
Step 3: Determining when those learnings can be put into practice (Burns, 2000).

Typically through this assessment, people reveal the things that are important to them and that offer them a sense of pleasure, enjoyment, and meaning. Interestingly, participants tend to list many nature-based activities and sensations, thereby speaking to the power that nature holds in our minds, bodies, and spirits (Burns, 2000). Also of note is that people with symptoms of depression tend to have short lists, while healthier, happier people tend to have lengthy lists, but during the course of therapy, clients generally develop and lengthen their lists (Burns, 2000).

The findings from this inventory also can be used to formulate homework focused on connecting people to themselves and others in ways that are sensate and pleasure focused. An example showing how this inventory was applied appears in the case at end of this chapter.

Connected to Nature Scale The Connected to Nature Scale (Mayer & Frantz, 2004) is an assessment tool that can help therapists determine how effective their nature-based interventions may be in creating change for clinical participants. The Connected to Nature Scale (Mayer & Frantz, 2004) is a 14-item rating scale using a five-point Likert Scale. The assessment can provide general information about how clinical participants feel towards nature. To assist with nature-based interventions, this scale serves as a useful way to assess and monitor the extent to which clinical participants may be experiencing a deeper connection with nature.

Interventions

The interventions presented here are aimed at incorporating nature into the therapy process for two primary purposes. The first pertains to situations when the presenting issues that bring people to therapy are tied to a lack of nature contact. For example, in some cases, a disconnection from nature (especially when it corresponds with heightened engagement with technology) is tied to problems like depression, anxiety, irritability, poor concentration, difficulties sleeping, poor communication, and relationship tension. This is not to say that a lack of contact with nature causes these conditions, but in some cases, it is a contributing factor, and therefore, part of the solution should involve increasing engagement with nature. For example, a therapist might suggest a clinical participant to take a daily excursion into the natural world—that is proximal to their daily life (e.g., a park near their house, their front yard or backyard, a green space located within walking distance or on a public transportation route) to address different presenting complaints. In one case, a clinical participant may be struggling with feeling overwhelmed by life demands and burned out, hence this exercise is a way of bringing a daily dose of disconnecting from life stress by spending time immersed in the peacefulness of a natural setting. In another case, for a clinical participant who is struggling with differentiation from her family/relational system, these daily walks, taken alone, can serve as time to reflect on being alone with oneself and feeling her autonomy, while also feeling a deeper and more primal connection to the earth, and all of nature.

The second purpose is to enhance clinical participants' exposure to and engagement with nature because nature tends to be therapeutic. Even when clinical problems are not directly tied to a lack of nature contact, there is growing evidence that enhanced positive contact with nature has a variety of positive effects on mental and physical health and well-being. For these reasons, we present several strategies therapists can use to enhance clients' exposure to and interaction with nature. In addition, we also present a case study illustrating the use of nature-oriented interventions for a presenting problem that is not directly routed in a lack of contact with nature.

Gardening

Gardening is a nature-based homework assignment that can be performed by individuals and also by couples and familial/relational systems. Gardening directly connects people to the earth while also requiring them to behave responsibly and care for the environment. Gardening has been shown to reduce symptoms of depression and anxiety, while showing benefits in emotional, social, vocational, physical, and spiritual areas of life (Clatworth, Hinds, & Camic, 2013). Gardening activities can include anything from arranging flowers to planting and growing fruits and vegetables. Gardening has many benefits including encouraging relaxation, a clear mind, and enjoyment (Wang & Glicksman, 2013). A review of gardening as a clinical intervention found the number of gardening-based interventions is increasing in the literature, indicating that more clinicians are using this idea in their practices (Clatworth et al., 2013). Indeed, gardening is an intervention that can be customized by the therapist to fit the clinical participant's socioeconomic status (SES), geographical location, age and physical capabilities.

Noticing and Reflecting on Nature

Another activity involves noticing and reflecting on nature. In a study of this intervention (Passmore & Holder, 2017), participants were assigned to pay attention to how nature in their everyday surroundings made them feel, photograph scenes that evoked emotion in themselves, and provide descriptions of those emotions. Another group was asked to answer the same questions about human-built objects, while a control group went on with their normal routines without having to reflect or notice any natural or human-built objects. In this study, the researchers found that after the 2-week intervention, those who were asked to pay attention to nature experienced higher levels of positive effect, elevating experiences, and a general sense of connectedness to other people, nature, and life (Passmore & Holder, 2017). Therapists can utilize this activity with clinical participants experiencing loneliness, social isolation, depression, and struggles with self-discovery. This intervention encourages

clinical participants to pay attention to how natural objects in their daily lives make them feel. In addition to having clients spend more time in natural setting, this intervention can help clients gain insight into how natural objects in their environmental context may evoke certain emotions (Passmore & Holder, 2017).

Nature Scavenger Hunt

Nature Scavenger Hunts are a useful way to promote cohesion, teamwork, togetherness, problem solving skills, memory practice, physical activity, and creative thinking all while focused on nature and the environment (Rutherford, 1995). Within the context of relational therapy nature scavenger hunts gets all members of the system outside where they have to work together toward a common goal. Therapists give clients a scavenger hunt item list that consists of things found in nature. Therapists can devise the items themselves or draw from one of the many suggested nature scavenger hunt lists that can be found on the Internet. Examples of items that may be directed to find are a smooth rock, tree bark, three types of leaves, moss, a pine cone, an acorn with a hat and one without a hat, something in nature that smells good to you, something in nature that reminds you of yourself, two things in nature that represent a continuation (an acorn and an oak tree leaf). An important point to include in the hunt is to instruct clinical participants to destroy or kill anything in the environment.

The process of working together to gather the specified items requires couples or familial/relational systems to coordinate their efforts, to problem solve conjointly, and to communicate with each other directly. This may be a particularly helpful activity for families that are working to restructure the hierarchy within their relational system. For instance, parents may take a leadership role in this activity, where they can practice taking feedback from their kids, while the kids practice following the direction of the parents. When the scavenger hunt has been completed, the therapist processes the activity with the couple or familial/relational system by asking why the items were chosen, allowing individuals to share items they feel connected to, encouraging poem sharing, and de-emphasizing winners and losers (Rutherford, 1995). This is an activity that promotes cohesion and togetherness.

Animal-Assisted Activities

Animals can be a wonderful addition to therapeutic intervention, not only to help decrease symptomatology, but also in creating a sense of safety and positivity for some clinical participants. In a study examining two cisgender boys with emotional issues who spent time training a dog with a dog handler, researchers found that the boys experienced an increase in their confidence, ability to pay attention, and had less hyperactivity and oppositional behavior (Kogan, Granger, Fitchett, Helmer, &

Young, 1999). The researchers concluded that completing a goal with an animal rendered distinctive psychosocial benefits for children. It has also been suggested that participation in working with dogs via dog training programs has fostered behavioral improvements, decreases in depression, and increases in self-esteem in incarcerated women (Parshal, 2003).

Another effective treatment method that incorporates animals is equine therapy (Wilkie, Germain, & Theule, 2016). Obviously, this is an ideal approach for therapists with equine experience. However, even therapists who do not have equine expertise can engage in this work by partnering with a credentialed equine specialist. Indeed, the collaboration between licensed mental health professionals and credentialed equine specialists is the basis for equine-assisted psychotherapy as regulated by the professional standards of the Professional Association of Therapeutic Horsemanship (PATH, 2017). Equine therapy has been demonstrated to be an effective treatment for eating disorders (Dezutti, 2013), substance abuse (Cody, Steiker, & Szymandera, 2011), at-risk youth (Wilkie et al., 2016), anxiety and posttraumatic stress disorder (PTSD; Earles, Vernon, & Yetz, 2015), and children experiencing autism spectrum disorders (Mapes & Rosén, 2016).

Equine therapy is an interactive approach in which the therapist, the equine specialist, the therapy animal (in this case a horse), and the clinical participant work together to address the established therapeutic goals. Equine therapy operates on the premise that clinical participants project their issues onto the horse, and in relationship with the horse, the therapist works with clients to process these issues. The horse is a critical partner in the therapy work because horses (as domesticated prey animals) are extremely sensitive to changes in human beings (as predatory animals). Their acute sensitivity makes them especially perceptive to people's subtle emotional states. Given that human emotional states are manifested physiologically, horses are able to sense and smell (using their vomeronasal organ) human emotional states and changes in those states. Thus, horses are like large biofeedback machines that can provide important information about clinical participant moods and changes in their moods.

Case Illustration: Allison and Raymundo

Allison and Raymundo, a heterosexual, cisgender couple married 19 years with three children, sought therapy to address their distance and disconnection. Allison was not employed, and Raymundo, who was self-employed, worked from home. In theory, this arrangement enabled them to be available for their children at the same time, yet despite her being home, Raymundo complained that he felt like he often had to do a lot of the heavy lifting when it came to rearing the children and being available for their activities. One factor that may have contributed to this perception was the fact that Allison often fell asleep in the afternoon, no doubt a symptom of her depression and her difficulties sleeping that she treated with sleeping pills. In the evenings, their efforts to communicate often deteriorated into arguments, many of them petty, which led them to isolate by retreating into separate rooms (isolated

confined spaces). Allison would retreat to the bedroom to drink wine and watch Netflix, and Raymundo would go to the basement to play videogames. They also struggled sexually. While Raymundo had always had a stronger desire and more adventurous interests than Allison, after his infidelity a few years prior, she was quite reticent about being sexual with him.

The therapist, who was eco-informed, was sensitive to the environmental factors potentially influencing the couple's dynamics. For example, she picked up on the fact that whenever they got into a fight, almost always this occurred in the car or in an enclosed space in their home (either Raymundo's office or Allison's sewing room, neither of which had windows). Also, Allison admitted that her depressive symptoms were worse during the winter, and not coincidentally, when asked, the couple realized that they argued more intensely in the winter months. Theorizing that space and weather played some role in the couple's negative patterns, the therapist moved their appointments from 7 p.m., when it was dark, to 2 p.m., where they would have an opportunity to sit in the session and look outside the window at the nature surrounding the office building. As simple as this one adjustment may seem, in their sessions, this small change was correlated with more relaxed communication and the couple was better able to stay focused on solving problems rather than escalating into conflict.

To build on the power of controlling the space where communication occurred, as the weather began to become milder, the therapist asked the couple to wait to have their conversations while walking outside on a trail behind their house. They reported that being outside in nature and moving their bodies felt good and they were more successful in staying focused on the topics at hand while feeling less reactive and irritable. Allison also reported that her increased time outdoors had a positive effect on her depressive symptoms.

To assist the couple around their sexual disconnection, the therapist knew they would have to address the wound inflicted by Raymundo's infidelity. Because he had expressed a great deal of regret about his infidelity, Allison was able to forgive him and remain in marriage. Yet, as the therapist soon unearthed, the hurt of his betrayal had left Allison feeling guarded and fearful of opening up to him, which was partly manifest in sexual distancing. The therapist emphasized that it is natural for any being to remain cautious after an injury has occurred. She also explained that being close again would take time and active reassurance from the wounding party to rebuild trust. The therapist used a nature-based metaphor to underscore her point by referring to a relationship she had had with a companion animal when she was younger where she had wounded her connection with the animal and it took gentle patience and proactive work over many months to rebuild enough trust to facilitate a return to closeness. Hearing this, Raymundo agreed that he would be proactive about rebuilding trust with Allison.

As a trust building exercise the therapist had the couple participate in a ropes course together (with the therapist there) where they had to work as a team and had to lean on and trust each other. This experience and the processing they did about it in therapy was further enhanced by the fact it occurred out in nature in open spaces.

As they were continuing to gradually rebuild trust and closeness, the therapist used a second nature-based assignment, The Sensual Awareness Inventory (Burns 2000). After each had completed their lists, the therapists had them to identify one

pleasurable experience on the other's list that they could take responsibility for facilitating. They also identified two mutually pleasurable experiences to share together. Following this, the therapist asked questions such as:

1. What did I/we gain from that experience?
2. How do I/we think I/we could benefit from doing more of that sort of thing?
3. How can I/we do something similar, or different, for fun again?
4. When is it going to be convenient to recreate such an experience? (Burns, 2000)

Through this activity, the couple started to remember past, mutually positive experiences they had shared, which parenthetically were mostly nature-based experiences. In the process, they started to gravitate toward each other. While their healing process was slow, eventually they were able to rebuild trust and find ways to communicate more effectively such that they started to work through issues more constructively, spend more time together to accomplish goals and enjoy each other's company, as well as improving their intimacy and sexual closeness.

Conclusion

Clinical interventions of an eco-informed approach to therapy come in many different forms. All therapists have the ability to incorporate nature in some way into their practice, but how it is incorporated will determine a deep or a shallow approach to eco-informed mental health. While social and geographical location may impact the interventions that are possible for the therapist and clinical participant, nature is a free and unlimited resource that therapists can make good use of if they allow themselves to be creative and open to exploration. The interventions presented in this chapter can be used in isolation, but the most meaningful application comes from a shift in one's framework—one in which the therapist sees the nature–human relationship and the natural context as a vital, relevant, and important aspect of clients' world that contributes to their problems and holds infinite resources for alleviating distress.

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Wilderness and Adventure Immersion Therapy

C. A. Blankenship

Knowing trees, I understand the meaning of patience.
Knowing grass, I can appreciate persistence.

—Harold "Hal" Glen Borland (1965, p. 99)

Introduction

Have you ever needed a breath of fresh air? Needed to take a walk to clear your head, or to get some sun on your shoulders? Occasionally, we have to take a stroll through the autumn breeze, to feel the leaves crunching underfoot, and to fill our lungs with fresh air that has not been cycled through a furnace. We need to be outside. I (CAB) am a wilderness therapist who treats young adults and families at a for-profit wilderness therapy program. My goal in this chapter is to explain the different therapeutic methods of connecting people with the outdoors, the benefits of wilderness-based therapy, the challenges of these treatment modalities, and some recommended remedies for those challenges.

Sustained contact with wilderness is taking an ever more prominent role in the therapeutic landscape. Numerous methodologies are being used to exact the benefits of nature immersion, ranging from regular contact with wilderness to prolonged participation in adventurous challenges. Wilderness-based therapies are suggested to benefit its participants—with advantages ranging from improved self-awareness and emotion regulation to enhanced interpersonal relationships. Augmenting traditional therapeutic approaches with the benefits of wilderness is proving to be a valuable pursuit for individuals, families/relational systems, and communities.

In the same manner that snow, or torrential rain, can be a deterrent to enjoying an afternoon stroll, there are many other barriers to disconnecting from modern life

C. A. Blankenship (✉)
Open Sky Wilderness Therapy, Durango, CO, USA
e-mail: chris@openskywilderness.com

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_7

and spending prolonged periods of time in the natural world. Some people are afraid of being outside because of personal trauma or phobias, wilderness immersion is expensive and requires time away from day-to-day life, and the same snow and rain that encumbers your walk is a barrier to spending prolonged periods of time outdoors. Professionals in the nature immersion field are striving to understand and lessen these barriers in order to expand access to wilderness therapies. These steps revolve around minimizing the stress of disconnecting from life and making it easier to live in and learn from the wilderness.

The Value of Contact with Nature

Whether you grew up chasing a sibling through an empty lot in urban Los Angeles, or climbing above tree line in Colorado, you have experienced the benefits of being outdoors. The therapeutic methods for connecting with the wilderness are numerous, and the cost of these methods increases depending on how long a person is outdoors. Much of this chapter is focused on nature immersion therapy that requires prolonged periods in the wilderness and this may serve as a barrier for some clients. While spending time in the outdoors is a not a universally available privilege, it is likely that most individuals and families/relational systems can benefit from it.

For many people, the cure for a long day of stress is taking an evening stroll or spending time relaxing on the porch. Over the past few decades, mental health professionals have studied the relief that many people experience when taking that stroll. Researchers have shown that people who spend more time in a forest feel more refreshed, relaxed, and comfortable (Tsunetsugu, Park, Lee, Kagawa, & Miyazaki, 2011). While these feelings are all undoubtedly welcome in our increasingly frenetic world, it does make one wonder why we feel that way after periods of time in the outdoors. Relaxation can be the result of having more autonomy, knowing one's purpose in life, feeling confident about one's abilities, and being more emotionally regulated—traits that coincide with spending more time in the wilderness (Nisbet, Zelenski, & Murphy, 2011).

Mental health clinicians are increasingly taking advantage of the benefits of wilderness exposure, and they are observing corresponding gains in well-being. In general, people have more restorative experiences when surrounded by natural stimuli instead of artificial stimuli (Chang, Hammitt, Chen, Machnik, & Su, 2008), and therapists are taking notice. Kim, Lim, Chung, and Woo (2009) compared the effect of traditional cognitive behavioral therapy (CBT) being used in both natural and human-made environments. They found that participants in the nature-based CBT group had more remission in their depression symptoms. This small step in combining wilderness and mental health treatment suggests that there is room for more integration of nature-based experiences.

Nature Immersion Methods

Wilderness Therapy

Over the past three decades there has been a boom in the amount of short-term, residential treatment options based entirely on wilderness settings. Russell (2001) defined wilderness therapy as programs that are (a) therapeutic in intention, (b) designed to meet the needs of individual clients in treatment, (c) include individual and group therapy sessions provided by licensed mental health professionals, and (d) provide treatment in a primitive wilderness setting that includes physical exercise and living with peers and staff. These short-term treatment models typically last between 2 and 4 months and have been suggested to provide a myriad of benefits for the participants.

In addition to improved emotional resilience, stress reduction, and creativity (as described above), wilderness therapy challenges participants to learn about their bodies, minds, and hearts in order to succeed. Living in a wilderness setting requires people to exercise and care for themselves. Clinical participants pack backpacks, build shelters, build fires, cook meals, react to weather, and rely on their senses in order to maintain physical safety. Wilderness therapy participants have to exert considerable effort to accomplish the things that modern conveniences allow us to ignore. Unsurprisingly, they experience a significant increase in resiliency, grit, and confidence (Gillespie & Allen-Craig, 2009), which are personal benefits instrumental to improved mental health.

Wilderness therapy is typically delivered to groups of similar participants—individuals who work together to complete the logistical tasks of wilderness living and who experience the benefits of group therapeutic practice, and interventions. The tasks of wilderness therapy foster a stronger community, build group cohesion, and contribute to individual growth (Breunig et al., 2008). Living in a group also requires communication between participants. In particular, peer feedback has been suggested to be a core component of wilderness therapy (Russell & Phillips-Miller, 2002). Providing feedback requires practice in emotion regulation, assertive communication, and reflective listening, all of which are routinely rehearsed in wilderness therapy.

Adventure Therapy

Using nature in residential treatment is not unique to wilderness therapy. Many publications use “adventure therapy” and “wilderness therapy” interchangeably, with “wilderness therapy” being the primary term; however, this chapter will distinguish between them to show the variety in nature-immersed treatments. Adventure therapy combines the parameters of wilderness therapy with demanding pursuits that engage clients on cognitive, affective, and behavioral levels (Gass, Gillis, &

Russell, 2012). As a more adventurous form of wilderness therapy, this modality incorporates activities such as rope courses, rock climbing, skiing, rafting, and other adventure sports. These pursuits are unique because of the way they are planned and sequenced, which refers to the gradual increase in difficulty of the adventure activities. For example, participants can start with short climbs on easy terrain and then move towards more difficult climbs in more arduous terrain. This allows for the gradual building of self-efficacy, confidence, and resiliency (Neill & Dias, 2001). Adventure therapy incorporates a perceived risk and a participant's choice to partake in those risks (Bandoroff & Newes, 2006). Climbing a rock is scary. However, its actual risk is far lower than the perceived risk. This is a core component of adventure therapy. Participants have to consciously choose to engage in activities that appear risky, and thus trust themselves, and their peers to succeed in their pursuit. These superordinate goals help adventure therapy clinical participants to build relationships and communication skills (Bandoroff & Newes, 2006).

To be able to participate in the more adventurous activities that are the basis for adventure-based therapies, the foundational components of wilderness therapy must be present, which includes individual therapeutic planning, group processing, and oversight by clinicians. The hope is that every time a clinical participant climbs with their team to the summit of a new mountain, they develop and use some of the same tools needed to overcome the emotional or cognitive distress that brought them to treatment in the first place. Wilderness and adventure therapy modalities, where clinical participants spend prolonged periods in the outdoors, will be the focus of the remainder of this chapter.

Benefits of Nature Immersion Therapy

The Case of Monica

When Monica, a cisgender, bisexual, white woman of upper-class background in her mid-20s, arrived in the wilderness she was visibly angry. Monica had spent the preceding years using increasingly dangerous drugs, dropping out of school, and numbing herself from the memories of a traumatic sexual assault. She did not want treatment and the only reason she ever had for adventuring outside was to enjoy a cigarette. Monica agreed to come to wilderness therapy because her parents had threatened to cut her off financially unless she completed a treatment program.

Within a week of my work with Monica's family, it was clear that the issues ran deeper than the driving under the influence (DUI) charge that precipitated her parents' mandate. Monica's parents often yelled and engaged in physical confrontations. Monica was physiologically depleted from years of using benzodiazepines, opiates, cannabis, and alcohol. She was quick to quit, cry, and fight with her peers. Monica and her family were ripe to experience the benefits of nature-immersion therapy.

Mindfulness Monica's daily avoidance and agitation were due to years of depression, anxiety, and posttraumatic stress symptoms. She disconnected from life by using drugs, engaging in conflict, and quitting anything even remotely challenging. Monica was not mindful of her daily experience.

Mindfulness is defined as a psychological state of awareness whereby participants are not judgmental of the things they are experiencing (Davis & Hayes, 2011). It has been suggested in the literature that the practice of mindfulness can reduce rumination (Chambers, Gullone, & Allen, 2009), reduce emotional reactivity (Ortner, Kilner, & Zelazo, 2007), and reduce stress (Hofmann, Sawyer, Witt, & Oh, 2010). These growth areas all aligned with Monica's treatment plan while in the wilderness, and thus mindfulness was a core component of the work we undertook.

Mindfulness is promoted through wilderness practices in part because of the physical demands of living outdoors. Monica was challenged to keep herself warm, fed, and hydrated—all forms of physiological awareness that is boosted by being in nature. We spent many therapy sessions learning mindfulness skills that Monica could use when tired, setting up shelters, and collaborating on dinner preparation with peers. One night, Monica failed to pack her clothes in her backpack, and she lost multiple items due to the intense wind. She was incensed and was ready to quit; however, it was the perfect opportunity to practice her new mindfulness skills. Monica calmed herself, put her loss in perspective, and refrained from harsh self-judgment. Mindfulness can help people to accept negative experiences (Howell, Dopko, Passmore, & Buro, 2011), and the wilderness is an anodyne environment to practice overcoming adverse situations. By separating from social media, daily expectations, and peer pressures, Monica slowed down her life. Her connection with nature then facilitated learning and practicing mindfulness skills that were instrumental in her stabilization and growth.

Interpersonal Growth Monica's individual struggles were matched by the fractures in her closest relationships. She had gone months without sharing more than cursory words with her parents, she fought regularly with her boyfriend, and all of her peer relationships were based on substance use. Wilderness therapy was the first opportunity she had to build healthy relationships in years.

Stepping away from destructive family and peer systems is a crucial component of wilderness therapy, as it allows people to build trust, experience beneficial boundaries, and develop healthy roles in a new milieu (Bettmann & Jasperson, 2008). Monica learned how to work with her peers to accomplish superordinate goals such as building shelters, making fire, and cooking meals. These experiences helped Monica realize that she could have friendships based on something other than substance use—developed strong bonds with peers and treated staff as mentors. Russell (2001) suggested that these program's small group size, high staff-client ratios, and individual treatment plans contribute to strong group connections—facets that helped Monica to take steps towards wellness.

Monica initially treated the wilderness therapy field staff the same way she treated her parents—with contempt and disrespect. However, the novelty of these relationships, and the firm boundaries held by field staff, allowed Monica to understand her behaviors, and learn new ways to interact with authority figures. As her relationships with staff improved, she began to practice the same communication skills with her parents. Monica sent and received weekly letters with her family, during which she practiced the skills gained via wilderness therapy. Such skills include: reflective listening, assertive communication, anger management, conflict resolution, teamwork, emotion regulation, and respect for others (Gillespie & Allen-Craig, 2009). Families/relational systems of clients in wilderness therapy typically undergo weekly hour-long phone sessions with the therapist that is working with the identified clinical participant. These sessions provided Monica's parents the opportunity to learn and practice the same skills she was acquiring.

Stepping away from the recalcitrant relationships that Monica was engaged in provided an opportunity for her to examine her role and identify areas in which she could improve. The healthy relationships in wilderness therapy gave her a practice ground in which to hone her emotion regulation and communication practices. This progress, combined with Monica's family's efforts, allowed growth to not only occur while Monica was in treatment, but it built a foundation for healthy relationships in the future.

Resiliency Nature is an unrelenting force. It does not care if people are cold, wet, hungry, or tired—nature is unpredictable and unaffected by personal situations. Spending prolonged periods of time in nature is tiring, and it requires people to develop resiliency in a way that is not often tested in our modern world.

Before arriving at wilderness therapy, Monica had not held a job for more than a few weeks, she had dropped out of school, and the longest friendly dialogue she had held was a Snapchat conversation with a distant friend. There had always been an excuse, and her parents had always been there to catch her before the fall hurt too badly. She was not going to launch into adulthood behaving that way—she needed a change of course.

Wilderness therapy forced Monica to take responsibility for her actions. If she did not pack her backpack well, then she would be uncomfortable. If she did not make a quality shelter, then she would get wet. Instead of asking her parents to fix it for her, Monica began to internalize these lessons, and bounce back to try again. Developing such resilience is a core component of wilderness therapy (Gillespie & Allen-Craig, 2009).

Undergoing treatment in the outdoors also helps clinical participants to build interpersonal resilience (Neill & Dias, 2001). Monica built relationships with her peers and they relied on each other in order to succeed. As Monica earned trust from her peers, she experienced more trust in herself. The more trust Monica had in herself, the more confidence she had to overcome adversity, and the more she positively judged herself.

Self-Awareness Wilderness therapy helps people to understand their strengths, weaknesses, emotions, and position in social systems. This self-awareness helps individuals to explore their impact on others and the environment. Self-awareness and an expanding understanding of the world are crucial benefits of wilderness therapy.

Early in her stay Monica read a series of "impact letters" from her family outloud in front of her peers. These "impact letters" described Monica and her family's emotional and behavioral history. Monica responded in much the same way as her peers had before her, by uttering, "I had no idea things had gotten so bad." Harper (2007) suggested that nature immersion therapy helps participants to better understand their family/relational systems, and their role in it. Monica, like many of her peers, made a precipitous jump in engagement and participation after reading the "impact letters" from her parents. This perspective was instrumental to her understanding her struggles.

As clients in wilderness therapy increase their awareness of themselves and families/relational systems, they also start to build awareness of their surroundings. Before her arrival in the woods, Monica's relationship with the world could only be described as negligent and irresponsible. She would litter, throw away perfectly good items, and spend her parent's money on frivolities. Having to prepare her own meals, get clean water, and keep her gear clean, provided immense perspective for Monica. Self-awareness goes beyond the immediate surroundings; Beringer (2004) suggested that doing therapy in the wilderness builds awareness of the interconnected nature of the world, and one's role in it. Monica first realized her active role in the world when she left a bag of trail-mix in her jacket overnight. The hole that the chipmunk chewed in her pocket was a constant reminder that her actions have real-life consequences in the world.

Barriers and Potential Remedies to Nature Immersion Therapy

The Case of Sam

Although Sam came to the wilderness willingly, he soon realized that being outdoors, away from his family/relational system, and video games was more difficult than he imagined. While Monica was loud and angry, Sam was quiet and sad. Sam was an avid video game player who never touched substances. Sam's previous diagnoses included social anxiety, obsessive-compulsive symptoms (OCD), and attention-deficit-hyperactivity disorder (ADHD). He came to the wilderness willingly, but realized that being outdoors, away from his family/relational system, and video games was more difficult than he imagined.

Despite the myriad benefits to wilderness therapy, there are impediments to benefitting from it in the way that Monica did. Barriers range from physical stress, to

the required time and financial resources. Practitioners and programs are doing their best to address these barriers and to increase access to this treatment modality.

Nature-Induced Stress Sam's first night under the stars in wilderness therapy was the first time he had ever been camping. Sam had to learn how to layer his clothes, cook on an open-fire, carry all of his possessions, urinate and defecate outside, and cope with the demands of nature. Sam was overwhelmed. He had a mild panic-attack the first time he crawled into his sleeping bag and he refused to defecate for days. This discomfort can result in fatigue and stress when in nature (Toda, Den, Hasegawa-Ohira, & Morimoto, 2013), and is an understandable barrier to participation in wilderness therapy.

The stress that accompanies living in the outdoors can be remedied through intentional planning, supporting, and caregiving. The outdoor gear industry is now producing lines of high-quality outdoor gear. Gone are the days when people have to wear heavy wool and thick denim to exist in the outdoors. It is recommended that nature-immersion therapies invest in high-quality equipment in an effort to help clinical participants transition into the outdoors comfortably and safely. Programs should also support the gradual learning of physical skills. It is important to team clinical participants with helpful peers and staff, and to spend the first days or week of enrollment learning the physical requirements of being outdoors. Mentorship allows clinical participants to slowly integrate themselves into the natural environment and limits the stress of initial interactions with nature. Bandoroff and Newes (2006) suggested that a core component of successful wilderness therapy is the incremental increase in the difficulty in physical tasks. After all, teaching clinical participants to tie their boots is the first step in allowing them to hike their own path towards mental health.

Sam's diagnostic history made his wilderness therapy experience particularly challenging. During his intake interview Sam expressed a fear of spiders and extreme weather. These fears are typical for people with biophobia—or a phobia of interacting with nature. People who experience this phobia are afraid of animals, weather, and/or natural materials, and believe that interacting with nature will result in personal injury or illness (White & Heerwagen, 1998). Sam would often need consoling when he came in contact with a spider or when clouds started to build overhead. Sam also had a history of OCD symptoms that included compulsive hand washing and obsessive worry about food contamination. As you can imagine, it was difficult for Sam to keep himself clean, and to regulate his obsessive thoughts about food when surrounded by dirt, rocks, and plants.

As discussed earlier, wilderness therapists utilize evidence-based treatment modalities to oversee traditional therapy treatments in a primitive setting (Russell, 2001). This structure allowed me to develop an exposure-based cognitive behavioral therapy (CBT) plan for Sam. Exposure-based CBT has shown long-term benefits for phobias (Wolitzky-Taylor, Horowitz, Powers, & Telch, 2008) and for obsessive-compulsive symptoms (Collins & Coles, 2017). The high staff-to-client ratio allowed support and guidance for Sam while he was executing the exposure and response treatment plan. Sam experienced both gains in regulating his compulsive

behaviors, as well as long-term improvements in controlling obsessive thoughts and phobic avoidance patterns. The ability of therapists to design individualized treatment plans, as well as the high staff-to-client ratio, should be noted and expanded in an effort to address many client's struggle with the wilderness setting.

Separation from Home It was tremendously difficult for Sam to complete wilderness therapy in part because he was thousands of miles away from large urban area where he grew up. Sam is not the only one to experience the stress of being far away from home. Wilderness therapy can be difficult because of the initial transition away from home systems; however, this stress can be mitigated by intentional communication.

The average length of stay in wilderness-based therapy is 8–10 weeks (DeAngelis, 2013). That is two-plus months of only communicating with friends and family through letter writing and occasional phone calls. Bettmann and Jasperson (2008) suggested that leaving the comforts of home results in significant stress for clinical participants. Unsurprisingly, Sam wallowed away his first week of nights—homesick and crying. He spent his waking hours writing letters home to his family or gazing longingly at increasingly wrinkled family photos. Sam's family system was experiencing its own stress during this transition. Sam's parents were no longer worrying about getting Sam up for work—they were realizing that they had spent the last two decades supporting Sam and ignoring each other. It was becoming clear that they had nothing in common, except their struggling son. The change in equilibrium was challenging for the entire family.

Therapists who support youth and families/relational systems in wilderness therapy have an important job in utilizing the struggles that result from separation from home. Intentional separation of the family during wilderness therapy can facilitate healthy differentiation and autonomy within a family system (Bolt & Issenmann, 2017). Therapists facilitate this by helping participants to write intentional, reflective, and direct letters. The slow nature of communication via letters allows therapists to help clinical participants regulate their emotions before communicating. Therapists can also facilitate phone calls to discuss family issues. Over time, I was able to help Sam and his family to understand the enmeshment between Sam and his mother, the emotional reactivity from Sam's father, and the social dependence that Sam had been struggling with. In this way, the stress that was felt during the initial separation was turned into a therapeutic tool.

Returning Home Cooking on a fire, layering up for the cold, and sharing with strangers are not necessarily tools that translate to improved functioning in school or a job. The skills that are learned in the wilderness may be hard to apply to relationships and life in the front country—making it essential that wilderness therapists highlight the "real world" applications of any task that is performed outdoors (Bandoroff & Newes, 2006).

Sam spent many weeks in wilderness therapy complaining about how he needed something "more therapeutic." Clinical participants are not likely to identify the increase in resiliency they experience from tough hikes, or the improved organization

skills they have to learn in order to keep their gear dry. Field staff and therapists must help clinical participants to understand how those skills translate outside of the wilderness. Towards the end of a clinical participant's stay in the wilderness, it is important for therapists to help develop a plan to implement the learned tools in the world of school, work, and family/relational system. Relapse prevention plans are particularly important for participants because of the abstract nature of wilderness therapy lessons.

Families who participate in wilderness therapy rate lower at communication and adaptability than families who participate in traditional residential treatment (Jeppson, 2008). This factor makes it essential that wilderness therapy impacts the entire family system. Unfortunately, it is difficult to reach beyond the identified patient—after all, while Sam is doing treatment 24 h a day, his parents are participating in weekly hour-long phone calls. That treatment disparity can result in clinical participants showing more growth than their families—a reality that was evident the first time Sam shared his feelings with his parents only to be ignored. Wilderness therapy programs can close this gap by providing more family-specific services (Bettmann, Olson-Morrison, & Jasperson, 2011)—services like parent's weekends, separate parent coaching, and whole family wilderness experiences. The goal of nature-based therapy should expand from simply supporting the identified patient to supporting the entire family/relational system.

Resources Sam arrived in wilderness therapy in October. He graduated in January. While Sam showed considerable growth during that time, it was a costly enterprise. Sam and his family expended considerable time and financial resources to accomplish his personal gains. Programs must expand the feasibility of nature-based therapeutic interventions if it is going to become more widely used.

Spending two-plus months in the wilderness is difficult. In addition to living outside it also requires people to put school, work, family, and friends on hold. Sam had finally begun his college applications before his arrival in the woods. Finishing those electronic applications was all but impossible without considerable help. He had also recently gone on a few dates with a young woman—a relationship that withered when they did not speak for months. These constraints lead many individuals and families to pursue other treatment options—options that allow persisted connection to everyday life.

Understanding the ramifications of separating from daily life before coming into wilderness therapy can help alleviate the personal grief that arises. Therapists can also help clinical participants to engage in their non-wilderness pursuits, if it is therapeutically appropriate. Therapists can speak with schools to determine if assignments completed in wilderness can be applied to traditional class and can facilitate outside relationships if they are healthy. Sam worked with his parents to complete his college applications while in wilderness therapy because it was an appropriate next step in his life; however, many times these obligations, which are secondary to therapy, are simply neglected.

The cost of wilderness therapy is often prohibitive to participation. In 2013, researcher Tori DeAngelis estimated that the average cost of 2 months of wilderness

therapy is $30,000.00. A quick review of wilderness therapy websites shows that that price has consistently increased in the years since. Sam and his family had utilized his college fund to pay for treatment—leaving his college to be paid for by student loans. This barrier may keep families/relational systems from pursuing wilderness therapy.

As an industry, wilderness therapy is trying to expand accessibility through the use of scholarships and insurance reimbursement. Organizations such as The Loa Fund and The Sky's the Limit Fund provide scholarships for wilderness therapy. The Sky's the Limit Fund donated 1.2 million dollars since between 2010 and 2016. According to their 2016 annual report, that amount is matched by wilderness programs and has resulted in scholarships for over 250 young people and their families. Additionally, the Outdoor Behavioral Health Council, a trade group that provides accreditation and sets industry standards, has worked with other wilderness advocates to secure an insurance billing code for wilderness-based therapy (Kowalczyk, 2017). Establishing a billing code is a long way from securing consistent reimbursement; however, it is a positive step towards expanding access to this expensive treatment modality.

Conclusion

Monica and Sam came into the wilderness with significant mental health issues and left with increases in mindful awareness, resilience, social skills, and self-awareness. Overcoming the stress of living outdoors, separation from home, resources, and application of lessons outside of home was not done without considerable therapeutic planning and intention. This success can be expected from wilderness therapy programs as long as they continue to dissect and address the shortcomings that accompany this novel therapeutic approach.

Years later, when Sam and Monica take a walk after a long day of work, they will experience more than a breath of fresh air. They will be reminded of the friends they made sitting around a fire and the struggles they overcame hiking up a mountainside. For wilderness therapy participants, the crunch of leaves will not just be a comforting activation of their senses, but a reminder that if they can care for themselves in the woods for 2 months, then the stress of everyday life is entirely manageable.

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Indigenous Healing: Mental Health and the Path of the Condor

Deanna S. Carvalho and Jason J. Platt

> *Alverto Taxo, a Quechua Medicine Man from the Andes Mountains in Ecuador sang in Spanish a lilting, enchanting song to Creator. Then he spoke of the condor of the south and the eagle of the north, a reference to the ancient Incan prophecy that one day the great sacred birds of South and North America would fly together and embrace a new, healthier future: merging intelligence and precision with open, feeling hearts.*
>
> —McFadden (2012)

Introduction

There is a two-thousand-year-old legend found within various indigenous/first nations communities about two possible paths humanity can take. These paths are represented by highly symbolic images within indigenous traditions, the eagle and the condor. "An ancient prophecy, shared by indigenous people throughout the Americas, says when the Eagle of North America and the Condor of South America unite, the spirit of peace will awaken on Earth. After waiting for millennia, many native peoples believe the time is now" (Crowley, 2007, p. 1). These two symbols represent fundamentally distinct worldviews that have historically been in conflict. In the prophecy, the eagle represents the North, masculine energy, the mind, and industry. The condor, in contrast, represents the South, feminine energy, the heart, and intuition. In the prophecy, it is predicted that those who choose the eagle's path will become so powerful that those who choose the condor path will be at risk of being driven into extinction. The prophecy also suggests, though it is not assured, that in time these two paths may find a balance where both the eagle and the condor

D. S. Carvalho (✉)
Alliant International University, Charlotte, NC, USA

J. J. Platt
International Center for Therapy and Dialogue, Mexico City, ST, Mexico

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_8

are able to share the sky. Yet, in our present world, and isomorphically within the field of family therapy (FT), these two paths are out of balance.

Perhaps the eagler and condor prophecy held meaning for me (DC) because I was born in and raised in the United States (USA) but my parents are first-generation immigrants from a small village in Goa, India. I was shaped by the modern, westernized world in which I was immersed, but also by the eastern spiritual traditions and teachings of mystical Christianity that I was introduced to at home. For me, coming of age meant, in part, finding a balance between vastly different worldviews, not unlike the eagle and condor. I suspect that this has contributed to my passion for exploring and studying the different lenses through which humans make sense of their worlds. I have traveled extensively throughout my life, seeking to learn from as many different cultures and healing traditions as possible. Most recently this led me to pursue my master's degree in Mexico City, where I had the opportunity to provide systemic therapy to local Mexicans as well as English-speaking expatriates and currently, I reside in the USA, providing community-based therapy in North Carolina, to individuals and families affected by severe mental health issues, substance abuse, and human trafficking.

I (JJP) am a Caucasian male from a Latter-day Saint (LDS) background, who was born in the USA but moved to Mexico City for work. I opened a mental health clinic where I have worked with both local Mexican and international couples and families, both in English and in Spanish. I provide therapy to clients from significant economic extremes, from recently arriving refugees (primarily from Venezuela) to those among most economically advantaged. I often work with binational couples that are negotiating national, economic, and cultural differences that in some ways mirror many of the value differences highlighted in the eagle and the condor prophecy. The eagle and the condor prophecy also resonated with me because it was reminiscent of an influential conversation he had with a shamanic healer during a time when I was thinking of making a significant change in my life path. In 2005, I was first considering moving to Mexico full time to open a new mental health-training program. When I shared his struggle to make the decision with a local healer, the shaman simply commented, "The United States is sort of like the head. Mexico is more like the heart. My guess is that you have spent enough time in the head and that being in the heart would be good for you." It has been well over a decade since I moved to Mexico and it still feels like no truer words could have been spoken. Every day Mexico continues to teach me heart wisdom that feels like a fundamentally different fountain of knowledge. Also, perhaps the prophecy of the eagle and the condor resonated so much for me because for 12 years I have struggled with how to run a program that has to meet US accreditation and licensing requirements, hence the influence of the eagle, while doing so within a Latin American context, hence the influence of the condor. In many ways, the challenge has been to find a way to create a space for both the eagle and condor paths to coexist.

Mental health practice in the USA, including FT, is heavily influenced by the eagle's path, which is synonymous with a Western worldview. Unfortunately, the condor's path, synonymous with an indigenous worldview, has had far less influence, and as a result, the field has been missing out on the opportunity to benefit

from the insights and wisdom associated with this worldview. In this chapter, we address one particularly salient aspect of the indigenous worldview, namely the focus on and reverence for nature. The field of FT, because it is so heavily dominated by the eagle's path, has devoted scant attention to considering humanity's relationship with nature and the role nature can play in the addressing human sickness and suffering. We also examine how the Western and indigenous worldviews each think about and relate to nature, followed by a discussion of the implications for clinical practice. We conclude by presenting a variety of clinical interventions informed by an indigenous worldview and suggestions for how therapists can employ these as a way of utilizing nature in clinical practice and in so doing, honor the path of the condor.

Nature and a Western Worldview

Western thought is structured around the concept of dualism that leads to an either-or conceptualization of reality. Dualism leads to constructing reality in terms of binaries, such as light/dark, male/female, and spirit/flesh, which are then assigned oppositional values whereby one is superior to the other. Hence, light is better than dark, spirit is superior to the flesh, males are more valuable than females, and so forth. One of the most significant ways that dualism shapes reality within Western culture is with respect to the relationship between human beings and nature. From a Western perspective, there is distinct divide between culture and nature, between human animals and other animals, and between human beings and nature as a whole. Moreover, human beings and culture are viewed as superior to other animals and nature. This perceived separation and assumption of differential values are the basis for much of the present day exploitation and abuse of the earth.

A Western worldview fosters the idea that human beings exist outside of and above nature, and hence, the land and all other living beings on the planet are viewed as resources to be used by humans. These ideas have deep historical roots. For example, the concept of dualism and the idea that humans are separate from and superior to nature can be traced back to the ancient Greeks and philosophers like Plato and Aristotle who were proponents of transcendental dualism. Later, dualism was further reinforced with the emergence of Judeo-Christian principles that conceptualize human beings as separate and distinct from other animals and from nature in general. The bible describes humankind as the only being on earth that is made in God's image, and it advances the notion that humankind is separate from and above nature. The origin story in Christianity is that humankind is placed within nature but is not a part of it. According to these scriptures, God created the world and gave humankind dominion over nature and charged humankind with tending or cultivating the earth. "In Genesis man is the crown of the creative process; he is in the image of God and thus sharply distinguished from the remainder of the creaturely world. He is told by God to 'have dominion over the animals, and to subdue the earth'" (Barr, 1972, p. 11).

Nature, in the bible, is framed as wildness that is dangerous, hence humans need to exert influence and authority over nature lest it get out of control and destroy humanity. This idea that nature is wild and dangerous, and in need of being tamed and mastered, underpins much of how Western society has, for centuries, interacted with other animals and the earth. This perception has been used to justify many of the domineering and exploitative tactics humans have engaged in relative to nature (e.g., domesticating animals to exploit their milk, eggs, wool, and flesh, establishing governmental agencies charged with managing and often manipulating natural processes so humans can extract as much as possible from the earth and other animals, etc.).

Nature and an Indigenous Worldview

Whereas a Western worldview perceives nature as existing separate from and belonging to humans, an indigenous/first nations worldview perceives humans as inextricably connected to and a part of nature. Indigenous communities across the globe devote significant attention to cultivating human–nature relationships based on respect and reciprocity. They see their lives as deeply interconnected with the lives of all other living beings, the land, and the whole of nature. While humans and nature have distinguishable boundaries, these boundaries are fluid, thus, the well-being of humans is embedded in the well-being of the natural world. To harm or reject nature is to harm or reject oneself, because whatever actions we take ultimately affects the entire web of life. Some indigenous cultures think of the earth as their larger body, giving rise to a relationship whereby one needs to care for the earth with the same respect and wisdom that one would care for the physical human body (Davis, 2013). From an indigenous perspective, many actions commonplace within Western society are illogical and destructive. For example, polluting a river for financial gain is as senseless an act as an individual knowingly drinking poison. Because nature and the connection between humanity and nature are fundamental to an indigenous perspective, nature plays a primary role in how health and illness are understood (Davis, 2011). Within an indigenous worldview, the relationships that people have with nature, or do not have, inform their degree of health or illness, and nature plays a pivotal role in fostering healing whenever there is sickness and suffering.

Links Between an Indigenous Worldview and Family Therapy

While most FTs are guided by a Western worldview, the values and beliefs reflected in an indigenous worldview are more congruent with many foundational systemic concepts (e.g., interconnectedness, wholeness, reciprocity, circularity, and contextualism). Indigenous communities around the world are diverse with complex and

unique histories, beliefs, and practices, yet they are united by an overarching set of values and beliefs regarding the relationship between humanity and nature, and how to conceptualize and approach healing through nature. In the following section we discuss several concepts held among indigenous communities with respect to nature that are compatible with family therapy, and that can help to guide FTs in how to incorporate nature in clinical practice and life.

Wholeness

An indigenous worldview is rooted in the concept of wholeness, which is the idea that the whole is greater than the sum of its parts. In the West, one sees a person, a dog, or a tree, and the perception of these individual parts forms an end point. But among indigenous communities, recognition of the parts leads to seeing how each part is tied to other parts and how together they form a whole that is greater than these parts. Hence, the person, the dog, and the tree are interconnected, and whatever health and wellness any one of these parts has, is linked to the overall health and wellness of the other parts, because ultimately, they form a whole. This notion of wholeness is highly systemic and is therefore highly compatible with FT theory and practice.

While both indigenous communities and FTs believe in the concept of wholeness, FTs have yet to apply this concept to its full logical extension by recognizing that all life is interconnected, and what we do to the earth, and to all other beings, we do to ourselves. Norwegian philosopher and deep ecologist, Arne Naess (2008), referred to the expanded sense of identity that indigenous communities experience as the "ecological self." He argued that developing a notion of self in ecological terms is an important part of ensuring the health and well-being of individuals, communities, and the earth as a whole. Because of the systemic basis of FT, the field is ideally positioned to follow examples indigenous communities set through their understanding of the ecological self that recognizes that health and well-being require that we live connected to and in balance with nature.

Communication with Nature

From an indigenous perspective, nature is a source of deep wisdom and can generate essential healing in the face of illness and pain. In one of his landmark works, *Dream of the Earth* (1988), cultural historian and eco-theologian, Thomas Berry, draws on the indigenous knowledge and practice of communication with nature, calling attention to the human need, "to go into the earth, as the source whence we came, and ask for its guidance, for the earth carries the psychic structure, as well as the physical form of every living being upon the planet" (p. 195). For instance, consulting an ancient oak tree or a rushing river can be a pathway to finding insight and

guidance. Through the use of song, dance, ritual, ceremony, prayer, and guided states of altered consciousness all in relationship to nature, indigenous people seek and avail themselves of the depth of wisdom offered by the land, animals, ancestors, and spirits, and through this open communication with nature, they gain what is needed for healing and health.

FTs understand the vital role communication plays in both fostering and helping to resolve problems. An entire sub-theory within FT explains how disordered communication patterns are tied to family dysfunction, and many other sub-theories emphasize the importance that clear, direct, open communication plays in healing relational injuries and supporting healthy system functioning. The appreciation that FTs have for the importance of healthy communication is compatible with the importance that an indigenous worldview places on humans communicating with nature in clear, open, and congruent ways. In particular, being able to listen and hear is a key to healthy relating and functional living and learning how to listen to and hear nature is a critical part of being able to heal and repair illness and pain. When people open themselves to communicate directly and authentically with nature, they can hear the wisdom nature has to offer for how to heal and live peacefully. This openness also makes it possible to hear nature's warnings about behaviors that we may be engaging in that are causing sickness and suffering. Nature's lessons are not always gentle. Like human beings, nature can be dark, turbulent, irritating, and ugly. Nature can also be downright violent. Every year thousands of lives torn apart and many are lost to hurricanes, flooding, mudslides, and other extreme weather events. Rather than simply dismissing these occurrences as natural disasters, perhaps we also need to consider why there is an escalation in this kind of nature communication. What are the messages that nature is conveying and what lessons might there be for us to learn and apply both to our relationships with the ecosystem, and within our other relational systems as well.

Interventions

Indigenous knowledge and perspectives that engage both the mind and heart can be employed by therapists to help individuals restore balance and harmony both internally and within their families/relational systems and communities. I (DC) first learned about many of these practices while participating in an environmental, social, and spiritual justice training hosted by the Pachamama Alliance, an organization that advocates for indigenous rights and the rights of nature. I participated in an intensive week-long training deep in the mountains of New Mexico with others from all over the world. Many of the practices I learned there were deeply transformational and I have enjoyed integrating them into my work as an FT. These interventions offer creative ways to guide individuals and families toward a deeper sense of connection with nature, with each other, and with themselves. My learning of these interventions occurred both through my direct experiences and through my study of the work of general systems scholar and deep ecologist Joanna Macy. Her

book *The Updated Guide to the Work That Reconnects: Coming Back to Life* richly details a variety of healing and transformation interventions that draw from indigenous roots. FTs, with their understanding of systems theory, are well positioned to utilize these ideas with couples, families, and other groups.

Medicine Walk

The Medicine Walk is a form of pilgrimage practice that can invite individuals, couples, or families to explore and deepen their relationship with nature as they seek insight and guidance preceding and during challenging events and life transitions. Many indigenous communities around the world utilize some form of pilgrimage practice that is meant to lead to vision, clarity, guidance, and purpose. Traditionally this process is done individually but following the exercise, it can be powerful for couples or families to share their experiences and debrief with each other. Each participant is instructed to find a wilderness area, ideally where there are few if any opportunities to interact with other humans. They are to try to find a space away from the commotion and noise that often comes with living in urban settings. Participants are then asked to identify and write into a journal that they will carry with them, a question, concern, or intention that they are carrying in their mind or heart. Couples or families/relational systems can be instructed to ask a question, raise a concern, or state an intention that is relevant to their relationships. It is recommended that participants spend at least 10 min meditating or quietly focusing on their question, concern, or intention before setting out on their walk.

When participants feel ready, they are to start wandering; after which their only instruction is to be present, attentive, and to allow themselves to be guided by the signs that nature provides. If they find that a butterfly or a tree catches their eye, or they notice a cluster of mushrooms on a dead log in the distance, they are encouraged to move toward it and to listen for the guidance being offered. As they continue to wander, they are to pay attention to what they encounter along their path; and to the emotions, yearnings, and insights that surface as a result. All of this can be received as "medicine" that is helping move them toward the answers and healing that they seek. It is highly recommended that they stop to write about their sensory experience and the visceral feelings that move them as they complete their medicine walk since these may provide insight, courage, and wisdom for the future. Alternatively, during or immediately following the walk, participants may write a letter to themselves about the perspective that emerged while immersed in the wilderness setting (Davis, 1998). When working with couples and families/relational systems, therapists can have members share with each other the insight they gained during their medicine walks and how it may relate to their relationships.

Solo Time in Nature

This simple practice invites individuals to connect with nature on a sacred and intimate level. It offers a sensory experience of being in relationship with the land and nonhuman life. Over time, it can cultivate a sense of belonging. At least a full day is suggested, although this practice can be extended, if desired. In preparation for this experience participants should be instructed to pack what they may need for a full day, including emergency items, light, food, and water. They should also bring a journal to note observations.

Participants are instructed to go to a wilderness area and wander until they identify a specific space, on the bank of a river, amidst patch of trees, in the middle of an open field, etc., that inexplicably draws them or seems to capture their attention. They are guided to not settle on the first place that they come to, but to really pay attention for a space that seems to draw them in, as if with an unexplainable magnetic pull. Once they have found the space, they are first asked to sit silently and observe. They can allow their focus to be drawn in by the insect moving across a blade of grass, the rock peeking out from underneath the leaves, or the red tailed hawk soaring above. The instruction is simply to become comfortable and familiar with the space, as if getting to know a new friend. When they feel comfortable, they are to begin engaging in conversation with the space. There may be thoughts or questions that arise as they pay attention to the sights and sounds around them and the emotions stirring within them. It is suggested that they have these conversations out loud as this helps to bring the experience of connection to a deeper level and can truly bring the relationship to life. The heightened attention and willingness to be fully present to the space allow communication to happen, though it may take some time for participants to be open and receptive to this communion. For this reason, sometimes it takes engaging in this process several times or over a longer period of time.

As the end of their time in their nature space participants are asked to make an offering to the space, as you might if you visited someone's home. This offering can take the form of a poem, a dance, words of gratitude, drops of water, prayer, etc. This component of the activity helps to cultivate a practice of reciprocity in the person's relationship with nature.

A way to adapt this for couples can be to have them find a secluded place in the wilderness where they can completely disrobe, sit facing each other, and take each other's hands.[1] Their directive should be to sit in silence and observe nature while recognizing that this includes themselves and their partner. When they feel sufficient time has passed and they are fully present, the couple can discuss what nature might have to communicate about their relationship. They also can talk directly to nature. When the couple feels it is time, the exercise should culminate in making an offering. For example, they might make a promise of how they will seek to live

[1] Obviously the disrobing part of this activity is contingent upon weather conditions and possible regulations about nudity on public lands. Being aware of local laws and regulations is advised.

together in harmony with nature. After returning to therapy, the therapist can facilitate a dialogue aimed helping the couple to connect the insights and lessons they took away from this experience to their relationship and how they may navigate relational difficulties.

Truth Mandala

This is a ritual that can provide a unique structure for acknowledging, owning, and honoring difficult or intense emotions that individuals may be holding. I (DC) first learned about the Truth Mandala as an attendee of Joshua Gorman's "Generation Waking Up" and Joanna Macy's "Work That Reconnects" trainings and workshops. It was introduced as a ritual for honoring pain about the multitude of environmental and social injustices happening around the world, which can be a powerful first step toward fully recognizing how the state of the natural world impacts our own mental health, relationships, and well-being, and how reconnecting with nature can lead toward healing and wholeness. However, I have found that the Truth Mandala can be useful to address many different forms of pain and injustice. This activity can work well with groups as well as with couples, families, and even individuals.

The Truth Mandala creates a unique and safe opportunity for the expression of the deep suffering that participants may be quietly and often silently enduring. It can be a tremendously healing experience to have non-judgmental others who bear witness and hold space for this expression as it may be the first time that participants are being invited and encouraged to give a voice to their emotions and truth, whatever they may be.

The Truth Mandala can be used in both indoor and outdoor settings depending on the size and type of group or family. The facilitator/therapist directs participants to sit in a relatively tight circle, creating a safe container that can hold what is going to be shared. If this experience is being conducted with a small family/relational system, facilitator/therapists can create a circle using sticks or stones and have participants stand on the outside of the circle. The facilitator/therapist then marks four quadrants within the circle which can also be done with sticks or stones that can be returned to their place after the ritual is closed (if performing the activity in a natural space). The facilitator/therapist then places a different, symbolic object from nature in the center of each quadrant and one in the center of the larger circle. After the objects have been placed, the facilitator/therapist goes to each item, picks it up, and explains what it represents. For example, the four quadrants commonly represent fear, anger, sadness, and emptiness, but the facilitator/therapist can select these based on the needs of a given group. The space in the center of the circle is left open so that it can represent a space for an emotion or feeling that does not quite fit in the designated four quadrants. After explaining what each object and quadrant represents, the facilitator/therapist invites participants to spontaneously, one at a time, enter a quadrant, pick up the item, and express in some what they are feeling.

It should be made clear to the group or family that the Truth Mandala is intended to be a sacred space for expression, not for argument, debate, or even dialogue. Additionally, what is said inside the circle during the activity is not to be processed or discussed outside of the sacred space of the Mandala. Setting these guidelines up front can help participants feel more comfortable about sharing without the fear that they will be in any way silenced or judged. Time allowing, an individual can enter the circle to share more than once, and they can enter as few or as many of the quadrants as they want. Individuals who are not in the circle speaking are asked simply to be fully present for their fellow group or family members and to bear witness to what is being shared. When an individual feels their turn is complete and exits the circle, the group can acknowledge them with a simple phrase or gesture chosen by the group ahead of time, and the next person may then enter the circle (Macy & Brown, 2014).

Council of All Beings

This group ritual aims to illuminate and strengthen awareness of the interdependence between humans and the natural world. It offers a creative way for individuals to connect and empathize with, and also speak on behalf of other life forms. Giving non-human beings a voice for us to empathize with them may enhance our inclination to treat them with greater compassion and respect. At its heart, this activity fosters a true communion with the natural world and increases awareness of the emotional and environmental degradation caused by our disconnection from it. It is recommended to do this activity with participants in a quiet, outdoor nature setting. This activity works well with both couples and families.

First, participants are asked to allow themselves to be chosen by a being from nature for whom they will speak during a Council that will take place later. The facilitator/therapist can suggest that participants walk quietly around the nature space they are within, paying attention to the nonhuman life forms that they see or that come to mind until they identify which one they will represent at the Council. Once they know which being they want to speak for, they are asked to create a mask that somehow represents that being. Participants are instructed to create their masks in silence so that they can reflect on their being and on preparing to speak on their behalf. When all the masks are ready, participants are asked to gather together in a circle and put on their masks. As the masked participants move into a circle, the facilitator/therapist welcomes everyone and the Council of All Beings is called to order. Members of the Council are asked to go around the circle and identify themselves and who they speak for (e.g., “I am Great White Oak, I speak for all trees.”). After the roll call, Members of the Council are then invited to speak for the beings they represent by describing what it is like to be that particular life form and explaining the positive and negative aspects of their relationship with humans. Finally they are asked to share what unique perspectives and strengths they offer to help bring healing to the planet (Macy & Brown, 2014).

Sunrise Offering

In indigenous cultures around the world, gratitude and reciprocity are key principles that guide the human–nature relationship. Expressing gratitude and offering reciprocity are integral steps toward recognizing that nature is not a resource or object for humans to exploit, but rather is an integral part of the larger web of life. This can be a powerful way to help affirm and strengthen a couple's or family's relationship to nature. Moreover, expressing gratitude and reciprocity are also healthy qualities to embody in human–human relationships as well, and hence these learnings from this exercise also apply directly to couple/family dynamics.

Sunrise Offering entails clinical participants waking up as close to sunrise as possible and going outside. The instructions are to pay attention to the nature that surrounds them and inspires or touches them in any way. As they feel themselves being moved, they are invited to express gratitude for what they are seeing, smelling, feeling, and/or sensing. Though this may feel foreign and uncomfortable to some clinical participants at first, it is important that they attempt to be authentic in their expression of gratitude, offering words, song, dance, or gestures. The intention with this practice is to acknowledge interdependence and to consciously offer praise to the nonhuman life that surrounds us.

Rock Talk

This is an intervention that can awaken and strengthen a couple's ability to communicate with nature. Clinical participants are instructed to silently wander alone in a wilderness setting, holding the perspective that they are a part of the nature that surrounds and supports them. They must wander slowly until they find a small rock that they can hold easily in their palm. When I (DC) was first introduced to this intervention at an "Awakening the Dreamer, Changing the Dream" training, group members were instructed to find a rock that they felt particularly and inexplicably drawn to. Participants should be encouraged to be mindful; not to rush this process or to choose a rock solely based on aesthetic attraction. Once they feel that have found the rock, they are asked to sit quietly and observe it for a while, to hold it in their hands and become familiar with the colors, edges, and textures. When they feel ready, and this may take some time, they are asked to begin having a conversation with the rock. The conversation can begin by introducing themselves, sharing their intention for initiating the conversation, and expressing a genuine desire to connect. Once participants begin to feel comfortable the words usually begin to flow, but as a prompt, therapists can suggest sharing fears, pain, sadness, or giving voice to a question they may be holding in their mind and heart. The content is less important than staying present and receptive. Once participants feel they have shared what they wanted, they turn their attention to the sensual, intuitive, imaginative part of themselves and in a journal, they are directed to record all aspects of what emerges

(e.g., feelings, movements, words, and images). Upon rejoining each other therapists then guide members of the couple or family system to a secluded spot together where they introduce their rocks to each other and share what they have gained. While this practice is intended to be a way of reconnecting with nature, it often leads to the emergence of thoughts and feelings that therapists can use to promote insight and healing relative to participants' relationships with themselves, each other, and nature.

Concluding Thoughts

It is a divisive and polarizing time in the history of the world. Industrial waste, massive over-consumption, a throwaway culture, and global warming denial all signal that the prophecy of an Eagle path dominating the world has already been fulfilled. We are just beginning to recognize the emotional, psychological, and relational implications of increasing natural disasters, contaminated water, pollution, and pure technological saturation. We believe that both therapists and clinical participants stand to benefit tremendously from an expanded, biocentric perspective that acknowledges the human–nature relationship as an integral factor of mental health and wellbeing. We hope this chapter opens up way for considering what can be learned from an indigenous worldview with respect to our relationship with nature and how to incorporate nature into how we think about sickness and suffering and the interventions we use to foster healing and healthy, balanced living. In short, we hope this chapter provides an opening for family therapists to begin incorporating the path of the Condor into our clinical work.

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Family Therapy and Eco-Activism

Tracey A. Laszloffy

There would be no peace for me if I kept silent

(Carsen, 2002).

Realizing how essential it is that we reform our ways, increasingly people are making eco-responsible lifestyle choices ranging from using cloth grocery bags and compact fluorescent lamp (CFL) light bulbs, to installing energy efficient appliances and driving hybrid or electric cars. Similarly, some businesses and corporations are adopting more environmentally sustainable practices, and gradually, governments are beginning to develop and enforce pro-environmental policies and practices. While there are signs of positive change at the individual, corporate, national, and international levels, we are still a long way away from making the kind paradigmatic shift that will transform environmental sociopathy to environmental sustainability.

As the authors in this book have been arguing, family therapists (FTs) have a vital role to play in bringing about much needed eco-changes. While there are many ways to do this, eco-activism is one such way. Eco-activism involves using direct, intentional actions to bring about changes and reforms that are intended to improve the health and well-being of our ecological system. In this chapter, I (TAL) explore how FTs can engage in ecological activism at both the individual level and as a profession.

Individual Level Eco-Activism

At the individual level, eco-activism for FTs occurs in two ways. The first involves the individual lifestyle choices that therapists make for themselves. There are a multitude of actions that individuals may adopt in their own lives that support ecological sustainability. Some of these actions are presented in Table 1 and specific

T. A. Laszloffy (✉)
Center for Relationship Healing, Norwich, CT, USA

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_9

Table 1 Individual level eco-activist actions

Getting around
• Driving less and when possible, walking, biking, or using public transportation
• When driving cannot be avoided taking small steps to enhance fuel efficiency such as staying on top of regular tune-ups and keeping car tires fully inflated
Within the home
• Setting refrigerators between 38 and 42 °F and freezers between −0 and 5 °F
• Washing only full loads of dishes and laundry and if possible, air-drying garments
• Unplug appliances when not in use
• Considering energy efficient appliances that are certified by ENERGY STAR® and emit less carbon than standard models
• Creating a compost. Even for those who do not have a yard, there are innovative new systems that can be used to compost and deal with food waste such as the Bokashi Composting system (Nini, 2017)
• When a new water heater is needed, upgrading to solar
• For those living in states that allow picking your own electricity supplier, using a Green certified company that generates at least half its power from wind, solar, and other clean sources.
Where and how money flows
• Choosing "shade-grown" coffee that is grown with the purpose of keeping forest habitats intact and supporting indigenous communities (Rodewald, 2017)
• Looking for products that are made from sustainable materials such as bamboo
• When possible, buying organic food that helps to keep harmful pesticides out of our land and water while protecting both wildlife and farm workers
• Buying products that are Fair Trade certified
• When buying paper or wood products, buying only those that have the Forest Stewardship Council (FSC) logo that certifies that the product was responsibly grown and harvested from sustainably managed lands
• Since conventionally produced palm oil causes severe environmental damage, buying products like cereal, cookies, and soap that are made from sustainable palm oil and contain the Roundtable on Sustainable Palm Oil (RSPO) trademark. The RSPO shopping guide can be found at: http://palmoilscorecard.panda.org/ (World Wildlife Fund, 2016)
The problem of plastic
• Carrying water in refillable nonplastic containers and avoiding single-used plastic bottles.
• Bringing reusable bags when shopping
• Selecting whole fruits and vegetables at the grocery rather than prepackaged produce wrapped in plastic
• Not using plastic drinking straws, the bulk of which end up in our oceans where they harm sea life (Fierberg, 2018)
Conserving water
• Fixing leaky toilets, purchasing low-flow, and low water appliance options
• Taking short showers
• Only running the dishwasher and laundry machines with full loads
Getting political
• Voting for candidates with strong environmental platforms and urging representatives to pass stronger policies to limit greenhouse gases, fight climate change, and protect wildlife and natural habitats

(continued)

Table 1 (continued)

• Encouraging representatives to support access to reproductive health and family-planning services also is essential because curbing population growth is a fundamental component of reducing environmental stress
• Signing and sharing petitions
• Attending pro-environmental events
• Talking with others about the various issues and ideas mentioned in this section

actions around one's dietary decisions with regard to ecological sustainability can be found in Box 1.

The second involves working with clinical participants in therapy in ways that encourage and empower clients (without imposing) to behave in ecologically sustainable ways. For example, in situations where clients may be experiencing subjugation, bullying, being silenced, and/or (mis)used/mistreated in any way, therapists can connect these experiences to the earth and the ways that human actions have dominated, bullied, silenced, and misused/mistreated the environment. In the spirit of guiding clients to practice resistance, advocacy, seeking protections, and healing with others, therapists might encourage clinical participants to engage in eco-activist actions such as contacting elected officials and/or gathering petition signatures to speak up and advocate for some type of environmental protection, or participating in a litter cleanup day where, in collaboration with caring others, one lovingly restores an area that has been treated as a dumping ground. Through such actions clinical participants are able to practice behaviors and skills that are tied to resisting domination and abuse, finding/asserting their voice, and fostering personal empowerment, autonomy, and confidence, which benefits both the environment and their personal healing and development.

Box 1 The Power of the Plate

Of the many activist-oriented behaviors that individuals can adopt in spirit of supporting ecological sustainability, one of the most impactful is adopting a meat and dairy free lifestyle (Shapiro, 2018). The UN Food and Agriculture Organization reported that meat production contributes to at least 14.5% of global greenhouse gas emissions, which is more than the emissions emitted by all forms of transportation combined (Friedman, Pierre-Louis, & Sengupta, 2018). Sixty percent of the Amazon's deforestation is due to cattle ranching (Tabuchi, Rigny, & White, 2017) and factory farmed meat consumption uses so much water that if everyone in the US went meat-free for one day, it would save 100 billion gallons of water (Earth Day, n.d.).

Fortunately, there are many ways available to ease into a vegetarian or vegan lifestyle. For example, read Scott Young's excellent blog on *How to Become a Vegetarian* (Young, 2007) or visit the Physician's Committee for Responsible Medicine website (pcrm.org) to find a plethora of information and resources about adopting and maintaining a vegetarian lifestyle.

Eco-Activism at the Professional Level

For a field that is grounded in context, interactions and systems, and given the level of threat our ecosystem is facing, there is no excuse for the field of FT to not address the ecological context. The following presents a list of suggestions for actions that can be implemented at the level of our profession. This list is intended to be illustrative and not exhaustive.

Environmental Policy Statement (EPS)

One way for the field of FT to promote environmental sustainability would be through adopting a strong Environmental Policy Statement (EPS). Such a statement would define key issues related to environmental degradation and human health, and it would specify the responsibilities that FTs have to protect the environment and promote healthy, sustainable behaviors at the individual, familial, community, national, and international levels. What follows are key highlights from the ESP developed by the National Association of Social Workers (NASW, 2009) that provides an example of some of the ideas that a similar FT statement might include:

- We acknowledge that for humankind to survive, a majority of people must embrace the notion of mental stewardship and recognize that humans are inseparable from nature and the biosphere known as the Earth. As stewards, we each have a responsibility to care for the environment.
- Social workers have a vested interest in the viability of the natural environment, including the noxious effect environmental degradation has on people, most especially on oppressed individuals, families, small groups, and communities.
- Social workers have a professional obligation to become knowledgeable about the precarious position of the natural environment, to speak out and take action on behalf of it, and to help clients act in an environmentally responsible manner.
- We support vigorous enforcement of environmental protection laws; funding to promote research into prevention and treatment of environmentally related diseases such as multiple chemical sensitivity, asthma, allergies, and emphysema; and the enforcement of the rights of people afflicted with environmental diseases.

- We support reasonable accommodation at work sites, schools, and public facilities for those who suffer from MCS, such as using fewer toxic cleaning supplies, prohibiting indoor smoking, and banning the use of personal care products containing toxins.
- We support more rigorous and effective testing, regulation, and labeling of chemicals, and products that contain them, through the U.S. Environmental Protection Agency and other federal agencies responsible for protecting the health of human populations and the natural environment. We advocate for fossil fuel elimination or reduction to be replaced, where feasible, with clean energy such as solar, wind, and water.
- We advocate for a secure affordable food system free of toxic chemicals and pesticides for all individuals (pp. 140–141).

An FT ESP would need to reflect the identity and orientation of FTs, but, like the NASW statement, it would make clear that the field has a professional and a moral responsibility to directly address the environmental abuse that is threatening life on earth. This statement would explicate how the field will become educated about the effects of environmental degradation upon human health and functioning. It also would specify actions the field will take to reconnect people with the earth, address eco-based suffering, and promote ecological sustainability, healing, and justice.

Professional Code of Ethics

In its present form, the American Association for Marriage and Family Therapy (AAMFT) Code of Ethics (2015) requires FTs to "develop new skills in specialty areas" (Code 3.1) and "to ensure the competence of their work while protecting clients from possible harm" (Code 3.6). Given these existing codes, and the harm that is caused by our disconnection from nature and abuse of the environment, it could be argued that a professional ethical responsibility already exists relative to ecological issues. At the same time, the AAMFT Code of Ethics could be expanded to include language that explicitly addresses the professional responsibility held by FTs, as systemic practitioners, to be informed about the relationship between environmental issues and human health, and to be committed to environmental sustainability, healing, and justice.

Accreditation Standards

FT professional associations could include ecological issues as part of the accreditation standards that regulate the training and education of FTs. For example, the Commission on Marriage and Family Therapy Education (COAMFTE) could

update the Standards of Accreditation to reflect the importance of eco-related issues by developing standards that require training programs to include coursework that: (a) addresses why it is important for therapists to connect ecological issues into their work; (b) defined what constitutes a healthy versus a disordered relationship with nature; (c) explains how humans became detached from nature and identifies the problems that result from this detachment; (d) guides students in exploring their personal relationship with nature including identifying manifestations of biophobia that may reinforce a detachment from nature and limit one's ability to work with ecological issues in therapy; (e) provides intensive, immersive nature experiences and guided experiential challenges that are designed to help clinical participants work through areas of biophobia and deepen their connection with nature; (f) helps students assess how ecological issues may be related to clinical participants' presenting problems; (g) demonstrates how nature can be used as a resource to help clinical participants heal and grow; and (h) explores how FTs can foster ecological sustainability, healing, and justice for all life on the planet.

Research and Scholarship

The field of FT needs to begin catching up to other mental health disciplines in terms of developing a body of knowledge and scholarship that addresses the relationship between the ecological context and individual and family/relational system health and functioning. The American Psychological Association (APA) has an entire subfield known as ecopsychology that is grounded in a body of research and scholarship. Social work has been slower to catch on, but they have been making progress. As noted by Dewane (2011), the link between social work practice and environmental issues was first mentioned by Berger (1995) in his article titled "Habitat Destruction Syndrome." FT journals could actively solicit manuscripts and devote special issues to the topic of ecological issues and therapy. Professional associations and other institutions could fund opportunities to develop knowledge in this area, and professional conferences could organize keynote addresses and offer workshops around environmental issues.

Professional Event Planning

When professional organizations hold annual conferences or other professional meetings, trainings, or events, there are a variety of action items they can focus on to support ecological sustainability. Some of these include:

- Location selection—using the Green Venue Report (GVR) to aid in selecting event destinations by assessing factors such as proximity to the airport, availability of public transportation, and access to hotels that carry third party sustain-

ability certification (e.g., Leadership in Energy and Environmental Design; LEED, Green Key, Green Leaders) (Simons, n.d.).
- Plastic elimination—opting out of plastic name bade holders and replacing plastic water bottles with glasses and water pitchers made available in all meeting spaces.
- Recycling—placing recycling bins next to all trash cans and actively encouraging participants to make use of these (Cook, 2016).
- Eliminating paper—using a technology platform to share event materials with participant instead of printing paper materials.
- Ecological sustainability messaging—making sustainability on overt and active part of the event experience by informing event participants about the commitment to environmental responsibility and actively encouraging behaviors that support sustainability (e.g., forging plastic waters bottles, recycling, walking, or using public transportation when possible).
- Virtual meetings—when possible, virtual meetings can be used to replace in-person gatherings, which will thereby reduce the energy costs associated with traveling to a common location and hosting an in-person event.

Environmental Action Committees

Within professional organizations could form committees charged with thinking about and devising action plans aimed at addressing environmental abuse and injustice and promoting environmental sustainability. Such committees could lobby politicians and present information to congressional committees to educate representatives about the relationship between ecological issues and human health and functioning.

Conclusion

As I have sought to demonstrate in this chapter, there are many ways that individual FTs and the profession as a whole can take direct, intentional actions aimed at bringing about the changes and reforms that are desperately needed to improve the health and well-being of our precious ecological system. The time to start acting is now!

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Incorporating an Eco-Informed Orientation into Family Therapy Education

Markie L. C. Twist, Daniela Leon, Amanda J. Korbar, and Shannon Yuen

Study nature, love nature, stay close to nature. It will never fail you.

—Frank Lloyd Wright (Lind, 1992, p. 23)

In general, the family therapy (FT) field has been on pause around eco-informed practices in clinical work, teaching, training, and supervision. For instance, the Code of Ethics of our national body contains no mention of ecological issues and nonhuman living systems in clinical practices (American Association for Marriage and Family Therapy; AAMFT, 2015), nor has the international and interdisciplinary body of the American Family Therapy Academy (AFTA, n.d.) included such mention in its mission, position, or values statements. Likewise, the current version (Version 12.0) of the Commission on Accreditation for Marriage and Family Therapy Education (COAMFTE, 2017 Standards for Graduate and Post-Graduate Marriage and Family Therapy (MFT) Training Programs also contains no mention of attending to ecological issues in conducting FT training and education. Currently, there may only be a handful of COAMFTE-accredited FT programs in the United States (USA) that address ecological issues in some way. For example, the Department of Human Development and Psychology Counseling in which the FT program at Appalachian State University is housed, has an elective course titled "Ecotherapy" that is open to FT students. In addition, at Lewis and Clark College the Department of Counseling Psychology offers three eco-informed courses—"Introduction to Ecopsychology in Counseling," "Wilderness and Adventure Therapy Intensive," and "Ecotherapy"—that FT students can take as part of an elective graduate certificate, and all FT students of the program are required to take an Advanced Ecosystemic Relational Therapy course as part of their training. And in my own (MLCT) work as a FT professor and educator within accredited FT

M. L. C. Twist (✉)
University of Wisconsin-Stout, Menomonie, WI, USA

D. Leon · A. J. Korbar · S. Yuen
University of Nevada, Las Vegas, Las Vegas, NV, USA

T. A. Laszloffy, M. L. C. Twist (eds.), *Eco-Informed Practice*, AFTA SpringerBriefs in Family Therapy, https://doi.org/10.1007/978-3-030-14954-3_10

programs I have intentionally included eco-informed practices in my coursework, suggestions and details of which follow in this chapter.

Outlining an Eco-Informed Approach to Family Therapy Education

Drawing on Our Interdisciplinary Roots

As a first step to incorporating an eco-informed orientation into FT education, I (MLCT) have found it helpful to engage in pedagogical and research-based interdisciplinary dialogue with those in the disciplines/subdisciplines of environmental sociology, ecopsychology, ecofeminism, conservation biology, landscape ecology, and restoration ecology. Such dialogues center around learning about how educators in these disciplines infuse environmental concerns into their curricula, both in terms of what has been successful, and less successful. From these learnings we have been able to apply what is helpful into our own teaching.

Applying a Framework of Cultural Humility

In addition to employing an interdisciplinary perspective with respect to eco-informed family therapy education, we also have found it is beneficial to apply a framework of cultural humility which involves maintaining an interpersonal stance that is open to the other in relation to aspects of culture (Hook, Davis, Owen, Worthington, & Utsey, 2013). Taking a curious, humble approach to one's work with clinical participants means refining one's awareness, knowledge, and skills (Kim, Cartwright, Asay, & D'Andrea, 2003)) in relation to myriad intersectionality of cultural components (e.g., race, gender, class, sexual orientation, and religion) that are a part of every clinical system. One such cultural component is our relationship with nature and ecology. As such, we believe in the importance of approaching FT education in a way that is culturally humble and incorporates attention to issues of intersectionality that include nature and ecological sustainability.

Addressing Ethical Concerns with Students

As part of setting the stage for educating students to practice therapy in ecologically informed ways we have found that it is useful to have students identify and discuss potential ethical concerns. A common concern involves managing safety and confidentiality considerations when conducting eco-informed FT outside in nature.

Another concern involves determining if eco-informed FT is a good fit for the client system and their presenting concerns. For instance, one issue of goodness of fit might be that some clinical participants do not have enough economic resources for investing in products that help to ensure greater sustainability for the environment, and/or they may lack access to green spaces due to social, geographical, political, and/or physical limitations (Blumer, Hertlein, & Fife, 2012).

Students sometimes worry that encouraging clinical participants to connect with nature and ecological sustainability may be a form of environmental privilege that ignores the realities of those who are poor or working class (Norgaard, 2012). For those who struggle economically, most of their energy is directed toward meeting basic needs such as obtaining food, obtaining and maintaining shelter, and job security. There are often few resources left to direct toward recycling or spending reflective time in nature, whereas those with economic privilege may have more resources (in terms of time, energy, and money) to direct toward nature-based issues and concerns. In this way, proposing to work through an eco-informed FT framework may read as insensitive in some cases, and even as a form of green gentrification (Gould & Lewis, 2012).

On the other hand, early environmental sociologists like Dunlap (1980) rejected the postmaterialist theoretical postulate that only people with tremendous privilege can afford to care about the environment. Instead, Dunlap and his colleagues pointed to the fact that environmental hazards and risks disproportionately impact some groups more than others because we are located within a larger political and economic system that shapes the natural world to the disadvantage of communities of working class and lower socioeconomic status (SES) backgrounds, especially women in such communities, and communities of color. Thus, care for the environment is ***not*** simply a concern for white, wealthy elites (Dunlap & York, 2008), but it is especially for minorities, women, and those of working-class backgrounds who are disproportionately negatively affected by ecological alienation and abuse. This is a conversation to engage students in as they sort through potential ethical concerns they may face with respect to eco-informed clinical practice.

Incorporating Nature into the Classroom

A key component of engaging in eco-informed FT teaching is to start slowly and to be mindful of the setting. This entails finding ways to incorporate nature in classroom settings in real-time, which can be done in almost any FT training course. For instance, educators can setup class meetings spaces with other-worldly artifacts, eat meals outside, take walks, conduct classes in nature, etc. Indeed, researchers have found that walking in natural environments versus indoor ones is associated with greater feelings of revitalization, positive mood, decreases in tension, confusion, anger, and depression, and increased feelings of having energy (Coon et al., 2011).

Expanding Ecological Knowledge

Educating students to be effective eco-informed therapists involves some combination of didactic as well as experiential learning. Didactic methods focus on expanding students' specific knowledge about nature and ecological issues and practices, while experiential learning occurs by having direct personal experiences that engage students' emotions, sensations, thoughts, beliefs, and reactions which are then processed and transformed into knowledge.

With respect to eco-informed training, didactic learning involves disseminating content that increases students' factual awareness of ecological issues. This can be accomplished in terms of depth and breadth (Hardy & Laszloffy, 1992). From a depth perspective, educators offer an ecology overview course that provides specific facts and knowledge about a range of diverse ecological issues. From a breadth perspective, nature and ecology-based content is interwoven into all coursework. For example, when I (MLCT) teach courses focused on Systems Theory, I include readings, discussions, and activities, as well as viewing films like *Mindwalk* (Cohen & Capra, 1990) that focus on myriad systems including natural systems and ecosystems, and we discuss how these different systemic levels (like natural systems) intersect with family and individual systems. I also use nature-based examples to illustrate systemic concepts. For instance, to demonstrate concepts around feedback loops, homeostasis, and change, I share the Boiling Frog Metaphor provided by Bateson (1972). Here is a common telling of the story.

> If a frog sits in a pool of water that is of the ideal temperature there is no problem and the frog will remain in place (default of systemic homeostasis). If a frog is placed in a pool of boiling hot water or if that pool heats quickly to boiling hot – the frog will jump out quickly rather than stay and be cooked (systemic feedback leading to perturbation). And if the frog is in an ideal temperature pool of water that is slowly heats up overtime becoming less ideal, the change will go undetected (systemic homeostasis is maintained). Thus, the frog will sit in it until being cooked to death, instead of jumping, because the frog is not able to systemically detect the building danger in time.

In Systems Theory classes we discuss this metaphor and what it means for families, relational/family systems, family sustainability, and our connection (and perceived disconnection) with nature and ecological sustainability.

Another example of how I infuse eco-knowledge into graduate FT courses that are not specific to ecological issues is reflected in my Gender and Sexual Diversity course. In this course, the focus is on diversity in terms of erotic orientation, sexual orientation, relational orientation, and gender, as well as on the sociocultural and familial influences on each of these areas of diversity. One such area we focus on is that of ecosexuality. Indeed, there are humans whose biophilia can take on a sensual or sexual quality, and thus who may identify as ecosexuals.[1] Focusing on ecosexuality can be powerful. Indeed, some of the first sexecologists have proposed that if people shift the way that they think of the planet and their relationship to it, then

[1] Ecosexuals engage in and embrace their erotic experience with the earth; they believe in viewing the earth as a lover (Stephens & Sprinkle, 2011).

they will treat the planet differently. They make the case that rather than thinking of the earth as nonliving, or if living as a mother-like organism, if we look at the earth as a lover-like organism by extension we will treat it differently, and perhaps with a higher degree of care ethics (Stephens & Sprinkle, 2011).

In teaching about ecosexuality I have students read works by sexecologists[2] (Stephens & Sprinkle, 2011; Weadick, 2013) and watch a video published by Greenpeace International (2008) entitled, *Forest Love*. In terms of their didactic education, students learn that people who are earth lovers, or ecosexuals, engage in activities like having sex with human partners in nature, using parts of the earth like vegetables and fruits as sex toys, enjoy being nude and natural in nature, and/or use eco-sustainable sex toys and related products with themselves and human partners, etc. Some people have even participated in commitment ceremonies where they marry the earth as a show of their commitment and love for the planet. I then have FT students reflect on some of the benefits (benefits to one's physical, mental, and emotional health from interacting with nature, potential for greater care of the planet, etc.) for clinical participants to practicing eco-sexuality, and some of the drawbacks (potential for criminal charges for sexual activity in nature if caught, management of degrees of biophobia in oneself and others, etc.).

Exploring Ecological Self-of-the-Therapist Issues

As stated earlier, the process of educating students to be effective eco-informed therapists requires utilizing both didactic and experiential methods. While students need facts and data relative to ecological issues, they also need to identify and explore their emotional relationship to ecological issues based on their personal, familial and cultural experiences, values, beliefs, and biases. With this in mind, we have found that ecologically based self-of-the-therapist work is essential (Cheon & Murphy, 2006).

Education that focuses on the self-of-the-therapist directs therapists toward knowing themselves, knowing what factors and experiences contribute to who they are, and being aware of how the self influences what one does and does not do, as well as what one sees and does not see in clinical/supervisory practice (Blumer et al., 2012; Hertlein & Blumer, 2012; Laszloffy, 2009; Laszloffy & Davis, 2018). There is a direct link between the self-of-the-therapist and one's clinical work. With respect to ecological issues, self-of-the-therapist educating directs students and supervisees to understand how their personal experiences and relationship with nature influence how they work with these issues in therapy.

Ecological self-of-the-therapist education begins by guiding students to explore their level of comfort with, awareness of, and respect for nature. Some FT students

[2] Sexecology is a field of study that explores the intersectionality of sexology (study of human sexuality) and ecology (study of the relationships between organisms and their environments) (Stephens & Sprinkle, 2011).

will have had experiences that orient them to feel favorably toward and at ease with nature, while for others there will be varying levels of uncertainty about, discomfort with, and in some cases, outright dislike and mistrust for nature.

On a large scale, the progression of human development has shifted from relying upon the earth and its environment, to relying upon machines (Greenleaf, Bryant, & Pollock, 2014). For example, humans once relied upon the stars for navigation, the forests for remedies, and the placement of the sun for time. Shifting away from nature has created many barriers between humans and nature, and to various degrees, individuals experience that rift in particular ways. Ecological self-of-the-therapist educating guides students to explore and understand how they may experience degrees of alienation from nature. It also encourages them to engage in practices that can help to heal their connection to nature while deepening their openness to the earth and the universal energy that unites all life.

For those who have had negative experiences with nature, it is important to promote positive exposure experiences to create a counterpoint to their aversions. There are many ways to do this, but importantly, educators should tailor their methods to match the concerns/resistance of the specific students with whom they are working. One way to help students work through aspects of ecological alienation or negativity is by guiding them to make personal connections with nature and the universal energy that binds all life (Berger, 2010). For example, sometimes when students appear to be feeling stressed and burdened, I (MLCT) have had them to go for a walk outside and pick up trash on the side of the roads. As they throw away each piece of garbage I guide them to identify something they want to throw away in their life that is weighing them down and polluting their inner peace. Through this practice participants are caring for the earth, while also seeing their connection with the earth (both they and the land around them suffer from the burden of garbage that is polluting their peace and well-being). Even better, I sometimes have students walk outside with others who are a part of their relational system and to pick up trash on the side of the roads together. As they throw away each piece of garbage I have them to talk about one thing they want to discard and change in their relationship system which promotes relational, psychological, physical, and environmental care and healing. This practice has the benefit of getting students to see how our ecology around us is something with which we can make a direct positive connection. In short, FTs with greater understanding of their ecological selves are better equipped to use nature as a resource in their FT, and to explore clinical concerns from an ecological perspective.

Completing Ecological Genograms Another tool that can help educators to tap into ecological self-of-the-eco-therapist issues to have them prepare a "green-o-gram" or "eco-friendly genogram" (Hertlein, Fife, Blumer, Smith, & Card, 2010). Genograms are a powerful way of identifying intergenerational patterns, themes, and dynamics (DeMaria, Weeks, & Twist, 2017), and when used with an ecological lens, this tool can help students to better understand their families and themselves in terms of nature and ecology related-areas of concern "(e.g., biophobia and nature-deficit disorder (NDD)), relevant nature-based life events (e.g., time spent outdoors

and work and play related to nature), and nature and ecology linked patterns across generations (e.g., conservation, eco-activism, and recycling) that may influence their own relationship with nature and their commitment to ecological sustainability. To help guide the eco-genogram process, questions that could be asked are offered by Blumer et al. (2012, pp. 85–86) and follow below:

- Do you and your family participate in outdoor activities (i.e., hiking, camping, picking up trash together, botany, etc.)?
- Do [ecological sustainability] practices impact unity or cohesion within your family? Describe how.
- Do you ever walk, carpool, or ride the bus to get places or do you always drive your car? Is this related to ecological sustainability efforts, or for some other reason?
- Do you have friends or other family that are involved in conservation or sustainability efforts? How do you feel about it? Does it influence you in any way? Describe how.
- Would you characterize your family-of-origin as consumers or frugal? What about yourself?
- What is your definition of ecological sustainability? Has it influenced you now or in the past? Why or why not?
- Have you or anyone in your family planted a garden to grow your own food? Have you practiced other forms of subsistence living (i.e., hunted animals for sustenance and used wind or water power to produce energy)?
- How has your family-of-origin impacted your decision to be or not to be sustainable?
- How, if at all, do you see your family's sustainability as connected to ecological sustainability?"

Exploration of Values Another way to approach ecological self-of-the-therapist educating is by having students explore their values related to nature and ecology. To aid in this exploration educators can assign films and readings that serve as prompts for having small group discussions guided by a series of questions that focus on tapping into their eco-selves. Some such readings/films include the film *Wall-E* (Morris & Stanton, 2008), and the readings: *The Earth and I are friends* (Asch, 2008), *A Short Story* (Winterson, 2009), *Enigmas* or *Los Enigmas* (Neruda, 1950), and *The Princess and the Kingshuk Tree* (Nagaraja, 2008). These stories are brief, and a few are actually written with children in mind, and the simple messaging makes them relatable regardless of age. These films and readings help to stimulate and shape the small group discussions that ultimately are aimed at getting students to examine their values in terms of nature, ecology, and sustainability. I use the following questions as a discussion group guide:

- How do changes in our environment (e.g., weather, natural disasters, and animal extinction) influence the growth of humans in general, and your growth specifically? How about clinical participants' growth?

- How do we adapt as a species to a rapidly changing environment and survive and grow? How do you, or will you adapt? How do or will your clinical participants?
- Do you ever feel connection with the earth/nature? Is it like an attachment relationship—as in feeling a sense of kinship or familial connection to nature/earth?
- Does experiencing solitude in nature/environment bring about more or less awareness in you? For others? For clinical participants? Why? Why not?
- What is it like to share nature with yourself? With others? With co-therapists? With clinical participants?
- If the earth is your friend, are you ever really alone?
- Are you more or less lonely outdoors or indoors? Elaborate.
- Is there a connection between care for the earth and care for others?
- Is there a connection between caring for the earth and disconnecting from technology? Is love of technology hindering our love of nature? Can you be attached to the earth and technology (at different times, at the same time) or are these attachment relationships mutually exclusive?

Assessing Care and Commitment to Ecological Sustainability A vital component of practicing as an eco-informed therapist involves caring for and being concerned about the health and wellbeing of our environment. Thus, having students' complete eco-assessments that will assess their self-of-the-therapist relationship with nature and evaluate the extent to which their beliefs and behaviors reflect a care for and a commitment to ecological sustainability (for a list of such assessments see Table 1: Ecological-Based Assessments) is a vital part of being an eco-informed FT. If done early in the educating process, these assessments can establish a baseline for one's overall investment in nature, ecology, and sustainability, and then later in the process, these can be retaken to see what, if any changes may have arisen.

Working Through Biophobia Much has changed from the beginning of humankind's time, and we have gone from a hunter-foraging livelihood to living inside climate-controlled settings. Modern societies have created different lifestyles that remove people further and further away from nature, and in some instances, pit people against nature, to the point where the natural world, for some, has become foreign or alien, and therefore frightening. Indeed, in modern times, some of the most common fears and phobias are storms and water, and statistically speaking, the most common are with non-human animals (Nevid, Rathus, & Greene, 2011). Relatedly, people are often afraid of interacting with nature, as they believe it will result in injury or illness, and thus some are resistant to connecting with the natural world (White & Heerwagen, 1998).

The avoidance of contact with animals, plants, or organic materials, and/or having a strong aversion to aspects of the natural world (Oxford English Dictionary, n.d.) is known as biophobia, a termed coined by Mary Daly in 1928. Related to this is when people suffer from NDD, coined by Louv (2005), and refers to humans, particularly children, who spend so little time outdoors that they suffer from various emotional, behavioral, and physical ailments. Since an aversion to or alienation

Table 1 Ecological-based assessments

Assessment name	Assessment description	Assessment source
Relationship with nature assessments		
The inclusion of nature in self scale	Single-item assessing feelings of closeness to the natural world	Schultz (2002)
The connected to nature scale	14-items assessing general feelings towards nature	Mayer and Frantz (2004)
The nature relatedness scale	21-items assessing one's self-perceived relationship with nature by measuring cognitions and experiences with nature	Nisbet, Zelenski, and Murphy (2009)
The brief nature relatedness scale	6-items assessing one's self-perceived relationship with nature by measuring cognitions and experiences with nature	Nisbet and Zelenski (2013)
Ecological sustainability assessments		
Carbon footprint calculators	Informal calculators assessing one's impact on the environment	www.carbonfootprint.com/calculator.aspx www.footprintcalculator.org
The ecology scale	130-items assessing degree of emotionality toward, as well as verbal and physical commitments to ecological issues, and knowledge of ecological facts	Maloney and Ward (1973)
The ecology scale, Short-form	45-items assessing degree of emotionality toward, as well as verbal and physical commitments to ecological issues, and knowledge of ecological facts	Maloney, Ward, and Braucht (1975)
The new environmental paradigm scale	12-items assessing environmental attitudes[a]	Dunlap and Van Liere (2014)
The new ecological consciousness scale	10-items assessing perception of overpopulation, ecological crises, and human responsibility for environmental degradation	Ellis and Thompson (1997)
The new ecological paradigm scale	15-items assessing one's ecological worldview	Dunlap et al. (2000)
The environmental concern scale	12-items assessing structure of one's environmental concern	Schultz (2001)
The environmentally responsible behaviors inventory	24-items assessing degree of engagement in environmentally responsible behaviors	Müderrisoglu and Altanlar (2011)

[a] Note: as one of the most popular measures of its kind there are presently three versions of this scale

from nature can become a barrier to working in eco-informed ways with clinical participants, it is important to address this within the training context.

Before educators can help students work through biophobia, first it must be identified. One way to do this is by having students/supervisees complete eco-assessments (again, see Table 1). Doing so will not only help to identify possible sources of biophobia, but this also allows students to practice administering the instruments and applying the results.

Once areas of nature-based dislikes, apprehensions, fears and/or mistrust have been identified, there are several ways trainers can work to address these with students. One common method is through exposure therapy which utilizes a combination of systematic desensitization and flooding. Systematic desensitization is a gradual process in which clinical participants learn how to handle progressively more disturbing stimuli related to their fear while they remain in a relaxed state (Wolpe, 1958). Flooding is where participants are exposed to high levels of fear-inducing stimuli, either in their imagination and/or in true-to-life situations, for a long enough period, and with no harm coming from the exposure, to the point where they unlearn the feared response to the situation (Nevid et al., 2011). Earth Education (van Matre, 1990) is an example of an exposure-like program designed to help people reduce their biophobia by taking participants who have lived in mainly urban areas their whole lives and placing them into fully immersive outdoor experiences for an extended period.

A newer form of exposure therapy that has been effectively applied to treat panic and anxiety disorders is virtual reality therapy (VRET) which is a behavioral technique that uses computer-generated simulated environments to expose clinical participant to the stimuli they fear over the course of several sessions. Interestingly, in a meta-analysis comparisons virtual reality exposure therapy and more traditional forms of exposure therapy, the former often demonstrates superiority (Powers & Emmelkamp, 2008).

Such technology-based interventions for addressing biophobia may seem counterintuitive to eco-informed therapists as many people operating through this viewpoint see technology and ecology as incompatible. However, we do not share the perspective that using technology to combat biophobia is counterintuitive, nor do we find pitting these two macrosystemic concepts against each other as helpful in the long run, as technology will most likely only continue to grow and change as we as a modern society will, and thus will not go away (Hertlein & Blumer, 2013). If we want nature and our home of Earth to not go anywhere we need to find a way to have ecology and technology make friends in a sustainable way for the sake of these two macrosystems, and ultimately for humans. In the end, whatever method educators employ, the important thing is to help students to examine, understand, and challenge any biophobia they may have to enhance their capacity to work from an eco-informed perspective.

Conclusion

In this chapter we provided information and examples of how to educate and teach clinicians on how to engage in eco-informed FT practices. Our suggestions are both rooted in the scholarly literature, as well as stemming from classroom experience. In sum, what we have presented is an interdisciplinary perspective within a framework of cultural humility for how to train FTs who will have the knowledge,

self-awareness, sensitivity, comfort, and commitment to working with clinical participants in a truly systemic, hence eco-informed manner.

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Index

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