Be Like Water:
Exploring Therapeutic Potential of Water in Addressing Emotional (Dys)regulation

by
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Abstract

Water is symbolically and inextricably connected to the human experience; we originate from it, we are made of it, and we rely on it to stay alive. Since time immemorial, water in various forms and applications has been used as a means of healing body, mind, and spirit. In recent years, the therapeutic value of water has received renewed attention in the areas of sports medicine, holistic wellness, ecopsychology, and public health. Yet, proponents of such approaches must reckon with a torturous history of the colonial "water cure" in institutionalized psychiatry, and ongoing injustices of water insecurity and inaccessibility. Through a relational lens, this interdisciplinary investigation explores the intersection of water and emotion, positing emotional (dys)regulation as a transdiagnostic therapeutic construct and examining practical applications of water as an adjunct or integrative treatment approach. It reviews historical and current therapeutic use of water for emotional and psychological wellbeing, discusses recent findings on the emotional impacts of *blue spaces*, and explores water as a symbolic, relational, and sensory therapeutic medium. Social justice considerations, ethical issues, and limitations (i.e., affective injustice, water insecurity, risk and safety) are discussed, and directions for future research are considered. The final product of this capstone project offers content for a zine resource summarizing salient themes and offering practical strategies for integrating water into therapeutic practices to support emotional regulation within and beyond the counselling space.

Keywords: blue space, emotional dysregulation, water, hydrotherapy, nature connectedness

Dedications

This work is dedicated to Elder Mary Thomas, Elder Mary Louie, Elder Josephine Mandamin, and all the Knowledge Keepers who have since time immemorial understood the vitality water for our collective wellbeing and fought to protect it.

And to Vic and Yola – my watery sisters.

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Chapter 1: Introduction

Since time immemorial, water has been used to heal the body, mind, and spirit. It holds a profound symbolism in our collective consciousness and has been recognized as the source of life across diverse cultural traditions. In the words of Mohawk Elder Jan Longboat, "Water is what sustains us. Water is what brings us into this world, and water is what keeps us in this physical world. And so it's our life" (Anderson, 2010, p. 7). Considering this existential connection between water and the human experience, it is no wonder that people have gone to the water to find reprieve from spiritual, physical, and psychological suffering for centuries. Water's therapeutic power and symbolism are woven throughout oral histories and religious texts, and hydrotherapeutic practices have been used in a variety of cultural contexts for the alleviation pain and suffering. Recent research on *blue spaces* – defined as natural or urban spaces where water is featured prominently (e.g., rivers, lakes, oceans; Vitale & Bonaiuto, 2024) – indicates that our individual and collective relationships with water have an immense impact on our wellbeing.

More specifically, water appears to have a profound influence on our emotional state, offering both a soothing presence and a source of psychological renewal. Its rhythmic movement – whether in the form of waves, rivers, or rain – can help regulate emotions, bringing a sense of calm and stability (Severin et al., 2022; Wright et al., 2024). Immersing in or being near water has been shown to improve mental health and foster a sense of psychological clarity, allowing us to process and regulate emotions with greater ease (Benfield et al., 2025; Hermanski et al., 2022). Simply listening to sounds of water can mitigate stress responses and reduce muscle tension, promoting healthy autonomic nervous system activity (Hsieh & Yang, 2022; Largo-Wight et al., 2016). Through its sensory qualities and its symbolic associations with flow and

resilience, water supports our emotional wellbeing in ways that are both deeply personal and profoundly relational.

This understanding of water as a healing and relational entity is hardly new. As Ojibwe Elder, Josephine Mandamin, describes, “we’ve known for a long time that water is alive. Water can hear you. Water can sense what you are saying and what you are feeling” (Anderson, 2010, p. 24). This recognition of water as both relational and animate stands in contrast to Western colonial ontologies, which reduce water to a chemical compound or resource to be managed, extracted, and consumed. Although the use of hydrotherapy in its clinical application (or the “water cure”) dates back to ancient Greece, cultural practices and understandings of the healing effects of water pre-date Western medicine. Indigenous wisdoms, including those of the Coast Salish Fist Nations in British Columbia, have acknowledged the importance of reciprocal relationship with water for wellbeing since time immemorial (Blackstock, 2021), and water has been – and continues to be – a foundational aspect of physical, emotional, psychological and spiritual health amongst diverse Indigenous cultures around the world (Chiblow, 2023; Mikahere-Hall et al., 2023; Somé, 1995).

Today, the symbolism and sensations of water appear in a variety of counselling modalities to support healing and emotional wellbeing. These include Dialectical Behavior Therapy (Linehan, 2015), Acceptance and Commitment Therapy (Hayes et al., 2012), Somatic Experiencing (Levine, 1997), and Water Play Therapy (Livneh, 2015), as well as myriad nature-based and experiential therapies. These approaches integrate water in different forms, such as ice, hot and cold-water immersion, and water-based metaphors and symbolism. Yet, despite the pervasiveness of water across counselling modalities and the human experience, its therapeutic mechanisms remain somewhat elusive. Evidently, the relationships between water and human

health are existential, political, and ever evolving. The present exploration narrows its focal point on one aspect of this interrelationship: the impacts of water on emotional (dys)regulation.

From ocean currents to rainstorms to babbling brooks, natural water systems are constantly shifting between states of intensity and tranquility to maintain the earth's atmospheric equilibrium, and thus, its ability to sustain life. These ebbs and flows of water constitute an ancient and vital rhythm, supporting integration, balance, and a form of symbiotic co-regulation amongst living entities. The same might be said of our autonomic nervous system in its adaptive oscillation between states of rest and activation, and the emotional experiences that help make meaning of this flow. Like water, our autonomic nervous system must be fluid – shifting between the sympathetic to the parasympathetic in order to support life. Physical sensations are interpreted through the filters of context, past experience, and personal belief to create emotion. Moving like changing weather patterns, these emotions motivate action, enable social communication, and help make meaning of the world around us (Fosha et al., 2009). This integrative flow of emotion and sensation allows us to not just survive, but thrive, engaging meaningfully in the human experience and relationships with one another and the environment.

Patterns of chronic emotional dysregulation can arise when an individual's ability to fluidly navigate emotional states is disrupted due to trauma, adverse childhood experiences, neurodevelopmental factors, or systemic stressors like racism and discrimination (Corrigan et al., 2010). These disruptions can narrow the Window of Tolerance – a term Siegel (2020) uses to refer to a zone of optimal arousal that allows us to cope with stressors and thrive – leading to heightened sensitivity to stress, and chronic states of hyperarousal (e.g., anxiety, hypervigilance) or hypoarousal (e.g., dissociation, depression). Attempts to manage this dysregulation can often manifest in maladaptive coping strategies such as substance misuse, disordered eating, self-harm,

or emotional suppression, which may provide short-term relief but ultimately contribute to long-term psychosocial suffering. Interdisciplinary research suggests that emotional dysregulation is a transdiagnostic feature underlying many forms of psychopathology (Beauchaine, & Cicchetti, 2019; Faustino, 2021; Kebets, et al., 2021). These authors challenge traditional nosology and diagnostic categorization, highlighting the need for therapeutic approaches that prioritize emotional regulation as a key mechanism for resilience and well-being.

As the field of counselling psychology moves toward greater recognition of social and somatic aspects of emotional wellbeing, an argument can be made for the integration of water for not only its symbolic and metaphorical qualities, but also its sensory and relational qualities. This capstone applies a transdiagnostic framework of emotional dysregulation, emphasizing its centrality as a therapeutic construct and its relevance across clinical presentations. It weaves together historical and cultural understandings, and insights from the fields of affective neuroscience, environmental psychology, and blue space research to explore how our relationships with water can support emotional regulation, and ultimately, both individual and collective wellbeing.

Purpose Statement

The present capstone seeks to understand and (re)iterate the profound potential and therapeutic value of human relationship with water. It focuses on the relationship between water and emotion, asking: *How can water support emotional regulation?* To explore this question, the following chapters offer a holistic and relational consideration of water's impacts on emotional experience. This capstone highlights emotional dysregulation as a transdiagnostic and critical treatment target across clinical modalities and identifies potential mechanisms by which the sensation and symbolism of water might support emotional regulation within and beyond the

counselling setting. It incorporates a decolonial, social justice lens to critically examine the ways in which water and emotion are influenced by colonial legacy and ongoing forms of systemic oppression. Importantly, this research endeavours to humbly honour decolonial perspectives by highlighting the voices of Indigenous scholars, Elders, and activists who have long articulated the relational, spiritual, and emotional significance of water, and who have intentionally shared their wisdom through publicly accessible work and writing. In doing so, it acknowledges that distinct Indigenous Nations across so-called "Canada" have continued to resist the ongoing violence of settler colonialism and assert their rights to water sovereignty. In culmination, the present project identifies core themes by which water may provide a standalone or adjunct therapeutic mechanism for emotional regulation and offers meaningful insights for the creation of a zine resource for practitioners, clients, and anyone interested in (re)discovering a healing relationship with water.

Theoretical Framing: A Relational Ontology of Water

What is water? How do you think about water? How do you feel about it? When you wash your hands, drink a glass of water, or pass by a view of the ocean, what is your understanding of the water you're interacting with? Perhaps, these questions don't enter your consciousness. Yet, the ways we individually and collectively conceptualize water – consciously or unconsciously – appear to shape how we engage with it (Whitburn et al., 2020). Could transforming the way we relate to water have an impact our emotional experience? Further, could it change our emotional experience of ourselves and each other? These questions are not questions of operationalization, but rather, of ontology. A relational understanding of water acknowledges its animate qualities and situates water as a living entity that exists in constant reciprocal relationship with all other forms of life. Through this lens, humans can enter into

reciprocal relationship with water, offering and receiving care – for our individual and collective wellbeing, for future generations, and for and the natural world to which we belong.

In contrast, colonial notions of water (or *modern water*) conceptualize water as a chemical compound and a resource to be manipulated, diverted, contained, and consumed to support projects of industrial expansion and capitalism (Wilson & Inkster, 2018). This view divorces water from its spiritual qualities and its symbiotic relations with humanity, contributing to a globally extractive paradigm which places emphasis on human superiority and exploitation of the lands, waters, and organisms of the natural world. Unfortunately, this hegemonic paradigm dictates many Eurocentric policies related to water governance. Critics such as Linton and Krueger (2020) describe how this so-called *ontological fallacy* of water undermines the scientific credibility of mainstream water policies, and more crucially, endangers the health and survival of both humans and the water systems on which we depend.

A colonial ontology of water has profound consequences for both individual and collective health, with particularly damaging impacts for Indigenous peoples across North America (Wilson et al., 2021). In *Muskrat Falls: How a Mega Dam Became a Predatory Formation,* Pasternak (2021) describes how a colonial ontology of water obstructs Indigenous peoples' rights and access to water through a process of "hydraulic imperialism" (p. 37). From the Shoal Lake Aqueduct in Manitoba, to the Oldman River Dam in Alberta, to the Cite C Dam in British Columbia, the Canadian state is fraught with examples of hydraulic imperialism, both historical and ongoing (Fabris, 2023; Kucic-Riker, 2017; Perry, 2020). These activities of colonial violence often have disproportionate and devastating impacts on the spiritual, mental, emotional, and physical wellbeing of Indigenous communities, particularly for First Nations peoples living on reserves, and Indigenous women and girls (Boelens, 2018; Duignan et al.,

2022; Waldron, 2021). Jewett and Garavan (2019) have also argued that colonial understandings of water perpetuate gender and racial inequities, stating that "control of water is equated with the drive to control women, indigenous 'others', and material and cultural resources more generally" (p. 42). Evidently, through the lens of colonial ontology, water is form of matter harnessed to meet the needs and interests of those who hold institutional and systemic power through colonial and capitalist infrastructure. Therefore, the coloniality of water can be seen as a violent and exploitative tool of subjugation, and a means of creating and sustaining oppressive systems.

Both Indigenous and non-Indigenous voices from the fields of environmental philosophy, public policy, water governance, and mental health have challenged the colonial ontology of water. Collectively, these authors conceptualize water as a relational entity which is inherently connected to the human experience and the balance of life on earth. In a 2016 article, titled *Thinking Relationships Through Water,* Krause and Strang (2016) provide one such expansive definition of water, as "simultaneously an element, a flow, a means of transport, a life-sustaining substance, and a life-threatening force, the subject, object, and often the very means of social and cultural activity" (p. 633). They go on to describe water as a source of wisdom and insight, arguing that "water inspires novel ways of thinking about key aspects of social relations, including exchange, circulation, power, community, and knowledge" (Krause & Strang, 2016, p. 633). Linton and Budds (2014) allude to a similarly relational understanding of water through the lens of a *hydrosocial cycle*, which recognizes water and human society as bound in a complex reciprocal relationship, "[making] and [remaking] each other over space and time" (Linton & Budds, 2014, p. 170). The notion of a hydro*social* cycle challenges Western science's reductionist hydro*logic* cycle (i.e., describing water's movement through the atmosphere through various chemical changes). The ideas offered by both Krause and Strang (2016) and Linton and

Budds (2014) capture a relational ontology of water, conceptualizing it as existentially and inextricably interwoven with human society and human experience, and further, as source of wisdom and insight. Their definitions paint a dynamic image that reaches far beyond the colonial concept of *modern water*.

Many Indigenous Nations and communities across so-called "Canada" – though culturally diverse – appear to share a common understanding of the sacredness of water, its inextricable connection to all living things, and its conceptualization as a relative (kin) and a healer (Anderson, 2010; Blackstock, 2001; Gansworth & Werner, 2016; McGregor, 2015; Wilson & Inkster, 2018). This understanding honours the spiritual, relational, and cultural importance of water, in contrast to Western science's focus on water's physical and chemical properties. In their interviews with First Nations, Métis, and Inuit Grandmothers, Anderson (2010), Blackstock (2001) and McGregor (2015) contrast Indigenous or relational view of water from the colonial framing used in Eurocentric water governance and Western science. Participants in these projects describe how relationships with water bridges the physical and spiritual realms, and foster connections between the past, present, and future. The following passage exemplifies the significance of intergenerational connections and responsibilities:

> Water transcends time and space. In some respects, the waters we interact with in the present are the same waters our ancestors experienced, and the same ones that may be experienced by future generations in turn, should we take care of the waters sufficiently to ensure their (and our) future viability. (McGregor, 2015, p. 72).

Evidently, through an Indigenous worldview, relationship with water is far from theoretical; it is a tangible reality, an embodied way of life, and a necessity for wellbeing. Further, this relationship is not one-sided. Ojibwe Elder, activist, and Water Walker Josephine Mandamin,

shares, “water has to live, it can hear, it can sense what we’re saying, it can really, really speak to us. Some songs come to us through the water. We have to understand that water is very precious.” (Gursoz, 2014, para. 6). These wisdoms indicate that humans and water can offer and receive care from one another, embodying a mutual respect and meaningful connection. They stand in stark opposition and resistance to the coloniality of water.

Research on the concepts of *nature connectedness* and *blue spaces* – discussed further in Chapter 2 – also reflects a relational ontology of water, revealing important correlations between the natural world, psychological notions of the *self*, and social-emotional wellbeing. Lengieza and Aviste (2024) suggest that connection to the natural world “operates like a true relationship”, and “is a form of self-transcendence” (para. 1). They go on to describe how the human-nature relationship needs repairing, and how such a process of repair can have a healing effect for both humans and the natural world to which we belong. In another recent article on blue spaces, Buser and colleagues (2018) describe water as providing a *more-than-human* form of relationship. These authors explore how humans can experience social and emotional wellbeing by engaging with water through *landscapes of care* (Buser et al., 2018). If water and humans have the capacity to be in caring and reciprocal relationship, perhaps we can offer one another a form of co-regulation.

These ideas offer a reverent understanding of the natural world and assert that humans *can* and *do* engage with water in ways that supports meaning-making, transcendence, and both relational and emotional wellbeing. They suggest that in the context of a respectful relationship, water in the natural world offers “not only sustenance but also sources of soothing, emotion regulation, guidance, and healing.” (Kirmayer et al., 2011, p. 88-89). Using the theoretical foundation of a relational ontology of water, this capstone explores how relationship with water

can support emotional regulation, as either standalone therapeutic encounter(s) or as adjunct to conventional counselling and psychotherapy approaches.

Contribution to the Field

This capstone project will explore a gap in the counselling literature and contribute to a growing interest in water as a means of supporting emotional regulation, and thus, both individual and collective wellbeing. It challenges the notion that the processes of healing can – or should be – relegated to clinical spaces or gatekept within ivory towers and behind paywalls. It invites readers to consider the role of natural elements in emotional wellbeing and the responsibilities that we collectively share to foster reciprocal relationships with the water systems we rely on to sustain life. It offers offer an accessible and practical resource to summarize key findings and suggest ways that individuals and communities can explore emotion and regulation through relationships with water.

Reflectivity and Positionality Statement

My love of water began at a young age; I have long found solace and peace amid raging emotions in the oceans and rivers and rainforests of this place I call home. Experiences in or around water – alone, or with others – have offered me a consistent and reliable source of meaning-making and emotional regulation in my own journey of healing. I have yet to experience an emotion or sensation in all its dysregulating intensity – be it grief, shame, physical pain, hopelessness, or heartbreak – that could not be mirrored, soothed, and held by some form of water.

In 2023, with an ever-changing group of (mostly) women, I began spending more time in natural bodies of water. Through the winter months, this group would gather in the frigid waters of the Salish Sea and the rivers that feed into it, laughing and shivering and splashing and

breathing deeply – finding strength in each other and our bodies to resist the clutches of seasonal depression, manage chronic pain, and reduce isolation. I began asking questions of my fellow swimmers and their relationship to the water: *What does this practice do for you? How do you relate to this ocean, this lake, this river? Why do you keep coming back?* There was a general, anecdotal consensus that these practices had a profound impact on both social and emotional wellbeing. Some people described feeling that the water's positive effects were on par with – or even greater than – antidepressants or conventional talk therapy. There was also a resistance towards the type of "cold plunging" promoted by extreme athletes or sports medicine clinics, where ego, individualism, and masculinity seemed to be at the forefront. This was something different; something communal, relational, emotional, and sacred.

As I concluded my academic coursework and began my clinical counselling internship at a local family services organization, I began to notice themes of rivers, waves, vortexes and icebergs in client's trauma narratives and across various clinical modalities. I witnessed the waters of emotion moving through people and running down their cheeks as they told their stories and processed their experiences. I watched children whose nervous systems seemed to be perpetually wired into high gear become mesmerized by the sensation and visual of water while they washed their hands or filled a glass of water or swirled a paintbrush around in a jar. I heard people describe water in the natural world – oceans, rivers, rain – as a metaphor for emotional experience or as sources of hope and connection in the midst of chaos and emotional pain. After long days, I often found myself back by the river or shore, or by my kitchen sink running my hands under water and imagining the heaviness of the day washing away down the drain. The frequency illusion took hold, and I began to see water everywhere I looked. Or perhaps, I began to more consciously notice water that was there all along.

Therefore, I am drawn to explore the relationship between emotion, sensation, and water through a combination of my own personal and professional experiences, and my connections land and place. I was born in an area colonially known as North Vancouver, British Columbia, on the overlapping and unceded territories of the Halkomelem- and Sḵwx̱wú7mesh sníchim-speaking peoples, including the xʷməθkwəy̓əm (Musqueam), Skwxwú7mesh (Squamish), and Səl̓ílwətaʔ/Selilwitulh (Tsleil-Waututh) First Nations. I am second generation Canadian, with of Polish, Irish, Scottish and Greek ancestry. Although the forests and oceans of the West Coast are home to me, I recognize that I have come to exist on this land through an ongoing process of settler colonialism.

My father was born in Warsaw, Poland, a geographic area fed by the Vistula River, which runs the length of the country. He grew up in an unstable sociopolitical climate, involving Russian-influenced communist rule, a rising solidarity movement, and eventual imposition of marshal law which led to mass arrests, censorship, and restrictions on freedom of movement and expression. He immigrated to Canada in the early 1980s when martial law came into effect, learned some English and a trade, and went by a Western name that was more palatable to the Canadian tongue than his consonant-heavy Polish one.

My maternal ancestry can be traced back to the Aegean seas of Greece, and the stormy shores of Ireland and Scotland. Both my maternal grandmother and grandfather are children of settlers who came to Canada in search of better lives, opportunities, and freedom from ethnic discrimination. However, my ancestors' ability to *choose* this trans-Atlantic relocation (amongst many other factors) speaks to their relative privilege and their role in the project of settler colonialism. Their participation in the displacement of children, parents, Elders, families, and entire communities of the Stony Plain Cree Nation and Anishinaabe Algonquin Nation in the

early 1900s contributed to the creation of the colonial Canadian state as we now know it. My existence on the shores of the Salish Sea is thereby both a product and a perpetuation of this settler colonial activity which continues to violently displace and disconnect Indigenous Peoples from their ancestral territories and sacred waterways. I have been thoroughly saturated and socialized in a colonial Canadian context and must actively work to disrupt and challenge this intentional conditioning.

As a new counsellor, and a cis-gender, white, able-bodied, straight-passing woman, I recognize that the intersections of my identity and experience replicate power imbalances in the therapeutic setting. I am committed to challenging white supremacy culture and building the emotional stamina to continue showing up, (un)learning, (re)imagining, repairing and honouring voices of those most marginalized by systems of oppression, including racism, classism, sexism, colonialism, ableism, transphobia, homophobia and xenophobia. My work in restorative and transformative justice movements has bolstered my belief in the need for transformation of carceral systems and the ways punitive, shame-based carceral culture is reproduced in our relationships with ourselves and one another. I am committed to building and maintaining communities of care, and with humility, engaging in ongoing self-education and cultural reflexivity in order to do the accountability and repair work that being in community requires.

I also recognize that by writing a capstone project on water and emotion, as a white woman in academia, my positionality replicates aspects of colonial violence. Psychology's ongoing "discovery" about the healing potential of water exemplifies Eurocentric subjugation and appropriation of Indigenous wisdoms. In academia, this *coloniality of knowledge* (Quijano, 2000) places greater credibility and validity on insights extruded through the Eurocentric Western scientific method than other forms or sources of knowledge (e.g., land-based and

culturally distinct Indigenous wisdoms). Western psychology's tendency to (re)discover what has already been known to be true by Indigenous communities can be seen as a reproduction of the colonial concept of *terra nullis*: treating the landscape of healing and human wellbeing as barren and empty prior to colonial activity, epistemology and pedagogy. This fallacy is baked into Canadian colonial socialization, and contributes to the violent erasure of Indigenous Peoples and knowledge systems.

Thus, in the context of this capstone project, I do not claim to have answers or any particularly novel ideas. Rather, I hope to approach the present project with critical reflexivity, cultural humility, and curiosity about the phenomenon at hand. I have chosen this capstone topic in hopes of better understanding the anecdotes from my experiences with emotion and water, and to humbly honour and affirm the origins of these practices in Indigenous wisdoms by referencing and crediting Indigenous authors, scholars, activists, and Elders throughout the project. In doing so, I also seek to challenge the narrow and pathologizing Eurocentric narratives about wellbeing and invite fellow counsellors to (re)consider their individual and collective relationships to water in a way that supports its preservation and accessibility for future generations.

Definition of Terms

Affective Injustice

A term originally coined by Shiloh Whitney (2018) and Amia Srinivasan (2018), defined as an "injustice faced by individuals specifically in their capacity as affective beings" (Archer & Mills, 2019, p. 75). Affective injustice involves "the beliefs, practices, attitudes, and evaluative dispositions of those in power that … actively suppress, block, or dismiss the emotional experiences of those who lack such power" (Archer & Mills, 2019, pp. 75-76).

Blue Spaces

Defined as “all visible, outdoor surface waters with potential for the promotion of human health and wellbeing” (Britton et al., 2020, p. 51). These spaces can be urban or natural, but most often include streams, lakes, rivers, or oceans (Vitale & Bonaiuto, 2024).

(Dys)regulation

Generally, refers to impairment in the regulation of a metabolic, physiological, or psychological process (Oxford University Press, 2025). In the present project, this term encompasses the interrelated concepts of emotional regulation and nervous system regulation; it recognizes that conceptualizations of (dys)regulation focused solely on emotional experience or solely on physiological stress/coping model of the autonomic nervous system, are insufficient and reductionistic. Parentheses are added to emphasize the subjective nature of (dys)regulation, and the hegemony of white supremacy in determinations of adaptive vs. maladaptive qualities of regulation. This recognizes the tendency for mainstream Eurocentric psychology to pathologize emotions and behaviors associated with resistance to racism, white supremacy, sexism, colonialism, and other forms of oppression.

Emotional Dysregulation

“A biologically dynamic, experience-based aspect of adaptation to environments and relationships that, in conditions of risk for the emergence of developmental psychopathology, motivates patterns of emotional responding that serve immediate coping often at the cost of long-term maladaptation” (Thompson, 2019, p. 805).

Emotional Regulation

A dynamic and multidimensional construct, involving the “modulation of emotional arousal” as well as the “awareness, understanding, and acceptance of emotions, and the ability to

act in desired ways regardless of emotional state" (Gratz & Roemer, 2004, p. 41). More specifically, emotional regulation includes the following for elements:

> (a) the awareness, understanding and acceptance of emotional experiences;
>
> (b) the ability to engage in goal directed behaviors and inhibit impulsive behaviors when experiencing negative emotions;
>
> (c) the flexible use of situationally appropriate strategies to modulate the intensity and/or duration of emotional responses; and
>
> (d) the willingness to experience negative emotions as part of pursuing meaningful activities in life (Sloan et al., 2017, p. 143).

Hydrotherapy

The use of water in any form (e.g., ice, water, steam) for health promotion or treatment of illness (Mooventhan & Nivethitha, 2014, p. 200).

Nature Connectedness

An affective and experiential connection to the natural world, involving dimensions of emotion, beauty, contact, meaning, and compassion (Richardson et al., 2019). In its simplest definition, this term describes "an individual's subjective sense of their relationship with the natural world" (Pritchard et al., 2020, p. 1145).

Nervous System Dysregulation

A novel and non-diagnostic term, referring to "symptoms that result from repeated activation or extended conditions of stress on the nervous system" (Elbers et al., 2018). It involves "sympathetic hyperarousal and parasympathetic hypoarousal states [which] drive emotional and autonomic dysregulation", making "states of optimal arousal and emotional regulation … relatively rare or difficult to maintain" (Corrigan et al., 2010, p. 18).

Water

This capstone adopts a relational framing of water and recognizes it as a multifaceted element and source of life, healing, and relationship. In addition to its definition as a liquid and chemical compound, this ontology recognizes water as not only a liquid and chemical compound, but as "a flow, a means of transport, a life-sustaining substance…a life-threatening force, the subject, object, and often the very means of social and cultural activity" (Krause and Strang, 2016, p. 633).

Outline of the Capstone Project Chapters

The following two chapters include a literature review (Chapter 2) and a discussion of practical applications, social justice considerations, ethical issues, and limitations (Chapter 3). Chapter 2 is further broken down into three sub-sections, to reflect salient themes of the research question. These sections are as follows:

- *Water, Emotional Dysregulation, and the Nervous System* – this section describes parallels between water systems and the human nervous system, weaving together recent research in the area of affective neuroscience to situate (dys)regulation as a dynamic therapeutic construct involving both emotional and physiological processes. It argues for a transdiagnostic conceptualization of emotional dysregulation and suggests that this construct is a prominent – and political – treatment target for the counselling field.
- *A Brief History of Healing Waters* – this section identifies early Indigenous and non-Indigenous origins of water-based practices for medicinal and spiritual wellbeing. Moving forward in time, it discusses the emergence of hydrotherapy in a Western medical context, the "water cure", elitist thermotherapy, and colonial psychiatry's

unethical use of water in institutionalized settings. It concludes with a brief snapshot of hydrotherapy in the present day.

- *Effects of Water on Emotional Experience and Psychological Wellbeing* – this section highlights current theoretical and applied research on the physiological and psychological effects of human relationships with water. More specifically, it will explore literature on *nature connectedness* and *blue space* interventions in relation to emotional (dys)regulation. It will also review novel clinical insights on the multidimensional therapeutic mechanisms of water, including its sensory, relational, and symbolic qualities.

Chapter 3 will discuss emergent themes from the literature review and discuss applications of water in existing therapeutic modalities. It will highlight social justice considerations related to the concept of affective injustice and issues of water insecurity. It will also discuss ethical issues of risk and safety related to water as a therapeutic medium, and limitations of the research project. In conclusion, it will introduce the final capstone product: a creative and accessible synthesis of research themes/insights to be compiled in a zine, titled *BE LIKE WATER*.

Chapter Two: Literature Review

> I'd watch the waves and be filled with wonder – about life, the tides, the sea…the force of the moon beckoning the water, raising it up towards the cliffs, then pulling it back down beyond the rocky pools, back out to sea…these tides, I thought, would continue their eternal cycle long after I was gone from this earth.
>
> - Daniel Siegel, *Mindsight*

Water, Emotional (Dys)regulation, and the Nervous System

Remarkable parallels can be drawn between the human nervous system and natural water systems. Rivers and streams distribute water carrying nutrients across ecosystems, just as our nervous system's network of neurons transmits signals to regulate bodily functions and maintain homeostasis. As it moves through the atmosphere, water drives weather patterns and conditions such as temperature, humidity, and precipitation. Similarly, the autonomic nervous system spurs change in the ever-evolving emotional, somatic, physiological and social conditions of our lives. In the epigraph at the beginning of this chapter, Dr. Daniel Siegel, a prominent neuroscientist and author describes his own experiences of water, and the impacts of noticing natural water's rhythms and patterns. Siegel's work is well-known across the counselling field, and his publications span across disciplines, weaving together insights on developmental psychology, attachment, interpersonal neurobiology, and integration. The following section utilizes Siegel's (2020) Window of Tolerance model to conceptualize (dys)regulation and describe the physiological, emotional, and social aspects of this dynamic construct. It stresses the profound implications of chronic dysregulation and argues that emotional dysregulation constitutes a significant transdiagnostic treatment target across various counselling interventions and approaches.

Advances in the fields of affective neuroscience emphasize that our cognitive, somatic, and emotional systems are intricately linked and profoundly shaped by our environments and social relationships. Siegel (2009) has suggested that affect regulation – or emotion regulation – is therefore result of "coordination and balance of various areas of our nervous and social systems through the integrative fibres of the brain" (p. 159). Increasing neuroscientific understanding of the interdependence between these systems have challenged outdated and simplistic notions of the triune brain model (MacLean, 1988), in favour of the Adaptive Brain model, which emphasizes the "interconnections among homeostasis, allostasis, emotion, cognition, and strong social bonds in accomplishing adaptive goals" (Steffen et al., 2022, p. 13).

Theoretical models such as the adaptive brain, and the Neurovisceral Integration Model (Thayer & Lane, 2000), emphasize how these systems all play an important role in the evaluation, interpretation, and integration of sensory information to produce emotional experiences of regulation or dysregulation (Cattaneo et al., 2021; Šimić et al., 2021). Interestingly, our bodies require hydration (water) to facilitate neurotransmission across these neural networks, indicating that water is an essential component in the cellular origins of our social and emotional experience (Critzer et al., 2024; Krause et al., 2011; Masento et al., 2014; Smith, 2015). Water is not merely a metaphor for emotional experience, rather, it facilitates it.

When we can respond flexibly and adaptively to experiences of dysregulation in our sensations and emotions, we are generally able to operate within our Window of Tolerance, a model used to describe the optimal zone of arousal within which we are able to engage socially, manage stressors, and thrive in everyday life (Siegel, 2020). When stressors become unmanageable and push us outside of the window of tolerance, our autonomic nervous system becomes overwhelmed, creating dysregulation. Like a river overflowing its banks, or a pot of

water “boiling over”, the autonomic nervous system may enter a state of hyperarousal (e.g., fight/flight, panic, escalation). Alternatively, it may “freeze over”, shifting into a state of hypoarousal or shut down (e.g., numbness, depression, freeze, dissociation).

The existence of these states is generally adaptive. Just as the ocean naturally shifts between turbulent waves and glassy tranquility, a healthy nervous system is not perpetually calm. Nor does emotional regulation denote a constant state of pleasant emotional experience. Rather, the process of regulation requires us to flow between physiological and psychological states adaptively in response to internal and external stimuli and ultimately return to our window of tolerance. Siegel (2009) uses his own watery metaphor of “an emotional river that flows between chaos and rigidity”, to emphasize the importance of system that is neither chaotic, nor rigid, but is instead flexible, adaptable, coherent, energized, and stable (p. 156). He suggests that emotional outbursts, intrusive thoughts, and impulsive behaviors may be representative of *chaos*, while inflexible patterns of thinking, relating, and behaving characterize *rigidity* (Siegel, 2009). To (re)balance as needed and maintain healthy equilibrium, fluidity appears to be vital.

However, a plethora of experiences and neurodevelopmental factors can narrow an individual’s window of tolerance, disrupting the river’s flow and pushing it to the extremes of chaos and rigidity, or hyperarousal and hypoarousal. For example, adverse childhood experiences (ACEs), trauma, attachment disruptions, chronic stress, and certain neurodevelopmental conditions or neurodivergence can all have a narrowing effect on an individual’s window of tolerance, resulting in emotional dysregulation by disrupting the autonomic nervous system’s ability to shift fluidly and adaptively from one state to another (Corrigan et al., 2011; Espeleta et al., 2020; Koenig, 2020; Siegel, 2020) The effects of intergenerational trauma, racism, discrimination, and stigmatization can also have a significant effect on an individual’s autonomic

nervous system, and therefore, their window of tolerance (Grasser & Jovanovic, 2022; Muscatell et al., 2022). These experiences and neurodevelopmental predispositions can result in an increased sensitivity to stressors; the autonomic nervous system becomes more easily triggered into states of hypo- and hyper-arousal or oscillates between the two, essentially becoming "stuck" outside of the window of tolerance (Corrigan et al., 2011). Just as a tsunami caused by an earthquake can disrupt the natural ebb and flow of coastal waters, so too can experiences of trauma disrupt the autonomic nervous system's functioning, wreaking havoc on emotional landscapes.

In recognition of the interplay between social, emotional, cognitive and somatic factors, the present exploration adopts an integrative definition of *emotional dysregulation* as put forth by Thompson (2019), who defines the construct as a "biologically dynamic, experience-based aspect of adaptation to environments and relationships…that motivates patterns of emotional responding that serve immediate coping often at the cost of long-term maladaptation" (p. 805). In other words, emotional dysregulation involves significant difficulties in coping with and managing emotional intensity, especially in the case of painful or difficult emotional experience, whereby short-term relief comes at the cost of long-term functioning.

Living life beyond one's window of tolerance is, understandably, intolerable. Much of the suffering that brings people into counselling presents as – or is symptomatic of – emotional dysregulation. It can be observed "across all empirically derived structural dimensions of psychopathology, including internalizing disorders, externalizing disorders, and psychotic disorders" (Beauchaine & Cicchetti, 2019, p. 799), as well as personality disorders and complex dissociative disorders (Brand & Lanius, 2014). Though the origins of emotional dysregulation vary, it shows up in presentations of hyperarousal (e.g, anxiety, panic attacks, mania, or

hypervigilance), hypoarousal (e.g., depression, low mood, and dissociation), or some mix of the two. In their study of nervous system dysregulation and associated clinical presentations in children who had experienced ACEs, Elbers et al. (2017) found evidence to suggest that a dysregulated nervous system adapted in response to chronic stress may "impair the body's ability to effectively regulate all the functions of the nervous system including sleep, digestion, autonomic function, motor function, and sensory perception" (p. 98). Therefore, counsellors may also witness this chronic dysregulation in the form of physiological or psychosomatic symptoms.

Further still, chronic dysregulation may present itself in the form of *dysregulating defenses* (Frederickson, et al., 2018), referring to the strategies people employ – often unconsciously – to mitigate and cope with chronic dysregulation. According to Frederickson (2018), emotional suppression, social withdrawal, experiential avoidance, and distorted thinking can all be conceptualized as attempts by to regulate painful emotions and sensations. Emotional dysregulation has also been linked to substance use (Bergen-Cico et al., 2016; Garke et al., 2021; Rahal et al., 2025; Sterllen et al., 2023), disordered eating (Jenkins et al., 2021; Monell et al., 2018), and self-harm (Bellato et al., 2023; Goreis et al., 2023; Wolff et al., 2019), suggesting that these and other *dysregulated behaviors* (Bresin, 2020) may be attempts to soothe or regulate the difficult emotions associated with living beyond one's window of tolerance. While these strategies are often highly effective in alleviating emotional suffering in the short term, their long-term effects can be costly, with devastating impacts on the wellbeing of individuals, families, and communities. Our efforts – albeit understandable – to avoid, numb, or override emotional dysregulation often have a profoundly isolating effect.

Emotional dysregulation also appears to have significant developmental associations; emotional dysregulation in children and adolescents has been strongly linked to emotional and

interpersonal difficulties in adulthood (Poole et al., 2018). Further, Crowell et al. (2015) suggest that “many phenotypically distinct forms of mental and physical distress emerge from the same underlying emotional processes expressed differently across development” (Crowell et al., 2015, p. 91). This indicates that emotional dysregulation may appear in different forms at different developmental stages, with a shared underlying origin. A growing body of research also indicates that emotional dysregulation is associated with the development of psychopathology and increases the likelihood that adverse experiences will result in long-term psychological suffering as opposed to psychological resilience (Cole et al., 2017; Peña-Vargas, et al., 2021; Timmer-Murillo et al., 2023; Troy et al., 2023).

Due to its prevalence and significant developmental associations, emotional dysregulation has been identified as a transdiagnostic feature of mental health outcomes and is a common treatment target across a variety of counselling interventions for children, adolescents, and adults. Advocates for a transdiagnostic approach to the etiology and treatment of emotional dysregulation emphasize its strong association with psychopathology, noting that 75% of the psychiatric conditions contained in the DSM are characterized by emotional dysregulation (Kring & Werner, 2004; Kring & Sloan, 2009). Other authors note the transdiagnostic significance of emotional dysregulation due to its neurobiological underpinnings (Kebets et al., 2021). Its prevalence has even led to use of the term, *disorders of dysregulation* (Goodyear-Brown, 2022), encompassing developmental trauma disorders, Post Traumatic Stress Disorder (PTSD), Attention Deficit Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), anxiety disorders, Autism Spectrum Disorder (ASD), sensory processing disorders, and mood disorders. Thus, transdiagnostic framing of emotional dysregulation cuts across, or altogether dismisses, the discrete categorization of psychopathology (Dalgleish et al., 2020).

Instead, it focuses on emotional dysregulation as a core underlying factor of psychological suffering and identifies emotional regulation as an imperative factor for wellbeing and resilience in the face of the inevitable adversity. It makes sense then, that emotional regulation has significant transdiagnostic utility, and has been widely accepted as a core mechanism of change across various counselling and treatment modalities (Gratz et al., 2015).

However, emotional regulation is not necessarily the inverse of emotional dysregulation, and further still, not all emotional regulation strategies are effective for reducing dysregulation. Naragon-Gainey et al. (2017) identify various emotional regulation strategies mentioned across existing research, including: behavioral avoidance, experiential avoidance, distraction, mindfulness, acceptance, expressive suppression, problem solving, reappraisal, rumination, and worry. The authors suggest that distress tolerance is associated with adaptive coping strategies such as mindfulness and acceptance (Naragon-Gainey et al., 2017). To account for this nuance, the present capstone adopts an integrative conceptualization of emotional regulation which involves "not just the modulation of emotional arousal, but also the awareness, understanding, and acceptance of emotions, and the ability to act in desired ways regardless of emotional state" (Gratz & Roemer, 2004, p. 41). More specifically, this definition indicates that emotional regulation involves:

(a) the awareness, understanding and acceptance of emotional experiences;

(b) the ability to engage in goal directed behaviors and inhibit impulsive behaviors when experiencing negative emotions;

(c) the flexible use of situationally appropriate strategies to modulate the intensity and/or duration of emotional responses; and

> (d) the willingness to experience negative emotions as part of pursuing meaningful activities in life (Sloan et al., 2017, p. 143).

This definition is one of the most cited and relevant definitions of emotional regulation in current clinical literature (Sloan et al., 2017), and integrates adaptive emotional regulation strategies such as acceptance, distress tolerance, and mindfulness that have been found to support long-term psychological wellbeing (Naragon-Gainey et al., 2017). Further, it encourages willingness to experience negative emotions as a part of living a meaningful life, while recognizing the value of being able to modulate acute emotional intensity.

Notably, this definition of emotional regulation also allows for subjective interpretation of terms such as *situationally appropriate*, or *goal-directed behavior.* In Western counselling contexts, binary determinations of appropriate vs. inappropriate, adaptive vs. maladaptive, regulated vs. dysregulated, are often made through a Eurocentric lens which can fail to consider the nuance and value of emotional responses to systemic oppression, as well as cultural variance in emotional expression (Hampton & Varnum, 2018). Thus, the present capstone uses the term "(dys)regulation" where appropriate to emphasize cultural and contextual subjectivity in conceptualizations of emotional experience and expression. Without this critical lens, counsellors and other mental health professionals may risk pathologizing the emotional experiences, expressions, and resistance of people harmed by systemic oppression (e.g., sexism, racism, colonialism) as psychological disease or illness. This notion is discussed further in Chapter 3, in the context of *affective injustice*.

Evidently, experiences of emotional (dys)regulation are profoundly complex and relational. Further, they do not end with the individual brain, or our immediate social relationships; rather, they are shaped and reshaped across time in a constant interplay with the

sociopolitical context and the forces of systemic oppression. This section has framed the concept of (dys)regulation, with emphasis on its interrelated emotional and physiological aspects, using the window of tolerance model. It has identified parallels between natural water systems and the human nervous system, including analogous characteristics of flow, rigidity, boiling and freezing, and the imagery of rivers, weather systems, and changing tides. In emphasizing its salience as a transdiagnostic treatment construct, it urges readers to consider emotional regulation a meaningful mechanism of change in the therapeutic process. The following section reviews uses of water for emotional healing across geographical space and cultural contexts, exploring its significance from spiritual hydro-healing practices to the emergence of medicalized hydrotherapy and the colonial "water cure".

A Brief History of Healing Waters

While Western hegemonic accounts of human history often begin with the ancient civilizations and empires of Egypt, Greece, and Rome, this distorted focal point contributes to the erasure of Indigenous Peoples' existence prior to colonization in the Americas, Africa, Asia, and Oceania. Indigenous communities across the world – though culturally distinct – have long-understood the vital importance of water for wellbeing, indicative of a relational ontology of water as discussed in Chapter 1. In Coast Salish worldview, water is not only kin, but also medicine; it carries spirit, life, and stories from the ancestors, transcending past, present, and future. Being with water, or "going to the water" is considered a cultural practice for physical, spiritual, emotional, and relational wellbeing (Blackstock, 2001, p. 5). Secwepemc Elder Mary Thomas describes this practice, passed down through her own maternal lineage, in the following poignant passage:

> When we're weighted down with a lot of grief, your life is becoming unmanageable, or you're going through a lot of pain, the first thing our grandmother and my aunt and my mother would say, "go to the water." Water is powerful and yet it can be so gentle. … if you sit by a little brook, which I often did when I had a home up at Mabel Lake, I can feel that—I experience all what my Elders taught me—I personally experience it. And you think of that water, you wonder where it coming from—will it ever empty? Where is it going—will it ever fill up? While I'm sitting there, I'm thinking, meditating, and I pray. What has gotten me down so bad?... Water is powerful. … I'd sit at the edge of it and just put my hands in it and I could hear the little birds singing around me, the same tune they've sang forever since Creator put them on this earth. … It makes me feel that I was connected to them. The pure life they were living, and why am I feeling the way I am? I wash my hands in the brook and then I sponge bath in it. That was something that our grandparents, our parents taught us. You wash and then you take a big drink—drink a lot of it. I'll be honest when I come away from there, I feel as if I've left a ton of weight back there. I feel better, I feel light. (Blackstock, 2001, pp. 4-5)

Elder Mary Thomas' words carry wisdom and oral tradition passed down through generations. She describes an experience that involves not only emotion, but spirit, sensation, relationship, and a profound sense of belonging to the land. Her words offer a glimpse into a world of traditional knowledge of water that transcends the Western scientific method and Eurocentric notions of psychological wellbeing.

Other Indigenous peoples around the globe appear to share a similar wisdom and understanding of water, despite diverse sociocultural and ecological contexts. In the Òrìṣà cultural traditions practiced by Yoruba Peoples of West Africa and their descendants in the

Americas, Yemaya (the divine mother and water goddess) is worshipped through water ceremonies performed by traditional healers (Rinne, 2001; Sellers, 2013). In his book, *The Healing Wisdom of Africa: Finding Life Purpose Through Nature, Ritual, and Community*, Malidoma Patrice Somé (1999) describes the importance of water from an Indigenous West African perspective, emphasizing that "we all need water, and rituals of water, to stay balanced, oriented, and reconciled" (p. 219). He goes on to note that water ceremony in Indigenous Yoruba culture was – and still is – believed to alleviate grief, and other forms of spiritual and emotional suffering.

In a gripping exploration of fractured relationships between humans and water, Scott (2019) weaves together the wisdom of his own West African ancestry and sheds light on connections between emotional and spiritual suffering, water, and the violent injustices of enslavement. He describes how Yemaya, as the deity of the ocean, "is deep and powerful, holding all the grief that ever was, including the enslaved Africans who were thrown off the ships, or chose to 'jump off' themselves, descending to Yemaya's ocean floor" (Scott, p. 8). Thus, through ceremony, the spirit of the ocean appears to offer these authors a vast container for healing; one deep and wide enough to hold the collective grief of colonialism, ethnic cleansing, and enslavement.

Both Elder Mary Thomas and Malidoma Patrice Somé emphasize the strong connections between culture, healing and place, reaffirming that *being with water* is an ancient and spiritual practice. Their insights also position water as a living, relational entity which can hold the grief and pain stemming from colonial expansion and the violent displacement of African and Indigenous peoples from their ancestral lands. The practices described by these knowledge keepers are not individualistic, but rather, relational practices that bridge the physical and the

spiritual realms, span the past, present, future, and strengthen communities and relationships to the land.

In addition to the Coast Salish peoples in present-day British Columbia and the Yoruba people of West Africa, other communities around the world have long histories of engaging with water's spiritual and cleansing power. Thousands of years ago, Egyptians, Israelites and Hindus sought healing for the body and soul through immersion in sacred bodies of water: the Nile, Jordan, and Ganges rivers, respectively (Gianfaldoni et al., 2017). Ancient Celtic societies similarly used natural sources of water in practices to cleanse the spirit (Moss, 2010), and in Mesopotamia, a person who held the role of healer was referred to as "a-zu", which translates to "the water connoisseur" (Tsitsis, et al., 2013, p. 463). Interestingly, many of the examples described thus far emphasize the importance of *moving* water (rivers, streams, oceans, springs) for spiritual practices, which Rinne (2001) suggests indicates an ancient belief that stagnant water does not possess the same spiritual or cleansing properties as flowing water.

Today, diverse religious texts and practices reflect a similar conceptualization of water as a means of connecting with spiritual entities. For example, Christianity's holy waters and baptisms can be considered forms of spiritual hydro-healing (Orogun, 2024). Water also plays an important role in spiritual wellness practices of early Jewish mysticism and present-day practices of Judaism, such as ritual immersion in the *mikvah* (meaning 'collection of water'; Dennis, 2008; Wisenberg, 2008). The importance of water in the Quran and the Zamzam well ritual practiced by Muslims in Jerusalem indicate a similar spiritual connection to water in Islam (Ashraf, 2015; Ghabin, 2013; Ghernaout, 2017). Across these diverse belief systems and cultural contexts, water has long been understood as a source of life, with its healing mechanisms often found in its facilitation of a relationship between the human and the divine.

Together, these examples illustrate a longstanding healing relationship between humans and water that predates – and transcends – Western medicine. Moss (2010) reiterates that the healing effects of water in these ancient times were unlikely to be seen as connected to psychological or physiological processes, or to hygiene as we think of it today. Rather, the therapeutic benefits of these practices were largely attributed to divine sources: spirits, creators, gods, deities and nymphs of the water (Kiełczawa, 2018). This serves as an important reminder that the individualistic concepts of psychology or mental health – denoting a distinct separation between body, mind, spirit, and the natural world – is a relatively new concept in humanity's understanding of health and wellbeing.

Hydrotherapy and the Emergence of Western Medicine

Ancient Greece, as the birthplace of Western medicine, signifies the earliest beginnings of what would later be known as the "water cure" (Silvano, 2021; Voudouris et al., 2023). Water continued to be viewed as a source of healing in the Hellenistic period and had particular significance in Greek mythology. Hydrotherapeutic practices during this time still held strong spiritual aspects, and temples were often built alongside thermal baths in natural settings around mineral springs (Gianfaldoni et al., 2017). These healing centres were referred to as *aesclepieia*, named after Asclepius, the god of healing and medicine. Seclusion in the serene natural environment surrounding the mineral spring was an essential characteristic of these sites, and was explicitly intended to facilitate the psychological healing of visitors (Christopoulou-Aletra, et al., 2010).

The *aesclepieia* used mineral bathing, fasting, and artistic expression for *katharsis* (cleansing), as well as dream therapy and early surgical procedures in a unique holistic approach to wellbeing that spanned the spiritual, physical, and emotional realms (Cilliers & Retief, 2016).

Although Hippocrates is said to have received his medical training at an *aesclepieia* (Marketos, 1997), spiritual, artistic, and emotional experiences are notably absent from his philosophy of medicine; in fact, the era of *aesclepieia* is believed to have ended with Hippocrates' theory of the human humours (Limneos et al., 2020). Water, however, remained a core feature.

As early as 350 B.C.E, Hippocrates wrote of the therapeutic benefits of water in his treatise, *On airs, waters and places* (Hippocrates, 1923). As a physician, he recommended hot and cold applications of water (e.g., hot spring soaking or cold-water bathing) to his patients, and in one instance writes, "the water can cure anything" (Hippocrates, as cited in Tsoucalas et al., 2015, p. 431). The emergence of Hippocratic medicine – and with it, Western medicine as a whole – signified a clear shift in ancient Greece away from a spiritual and emotional understanding of healing water, towards a medicalized approach where water was used in the clinical treatment of various physical ailments and diseases.

These beliefs, and the practices of Hippocrates' hydrotherapeutic treatments, persisted into the Roman period with the proliferation of *thermae* (bathhouses). The Romans emphasized a social component to hydrotherapy, building grand public bathhouses comprised of various pools, saunas, and steam rooms (Maréchal, 2012). *Thermae* served not only as places for physical healing and relaxation, but also as vibrant social centers where people from all backgrounds and social classes could gather and enjoy the restorative benefits of water. Physicians would prescribe visits to the *thermae* to their patients who were experiencing physical ailments. Modern hydrotherapy in spa settings, or the "hydrotherapy circuit" is still based on the format of these *thermae*, which included the *caladrium* (hot bath or steam room), the *tepidarium* (a warm room), and the *frigidarium* (a cold plunge pool; DeLaine & Johnston, 1999). These practices continued during the Ottoman period, in the *Hamam,* or Turkish Baths.

The social aspect of bathhouses is not unique to the ancient *thermae* or Turkish *Hamam.* In Japan, *onsens* have been used for hundreds of years as hydrotherapeutic spaces that foster both physical wellbeing and social cohesion. Serbulea and Payyappallimana (2012) describe how onsens historically – and still today – represent the Japanese cultural concept of *touji*, meaning 'bath cures', and symbolize an intersection of spiritual, social, and physical wellbeing. These baths are traditionally fed by natural spring waters, which were rich in minerals and believed to have considerable healing properties. In present-day Japan, onsens continue to be spaces for people of all socioeconomic backgrounds to gather, cleanse, and relax.

Colonial Hydrotherapy

The popularity of hydrotherapy in Europe and North America has waxed and waned from the fall of the Roman Empire until present day. Public bathhouses mostly disappeared with the fall of the Roman Empire, and bathing became a private and primarily hygienic – if not relatively unpopular – endeavour during the Middle Ages (Ramazzina, 2024). When these hydrotherapeutic practices re-emerged in spas and clinical settings, they did so along discrete lines of class and race. In the 17th century, doctors in England began prescribing their patients visits to the seaside, or "taking the water", for everything from tuberculosis to melancholy, although this gentle treatment approach was generally only accessible to the white, middle and upper class (Geiger, 2023).

It was not until the 1800s that hydrotherapy fully re-emerged in the realm of Western medicine in the form of the "water cure", a form of alternative treatment espoused to heal myriad physical and psychological ills. Vinzenz Priessnitz, an Austrian physician, is often credited for this re-birth of clinical hydrotherapy (Skopec, 1991). Priessnitz's hydrotherapeutic regimens were similar to those that Hippocrates had recommended some 2000 years earlier and involved

alternating exposure of hot and cold water through immersion in baths and application of wet bandages. The rapid proliferation of hydrotherapy in spa settings in the 1800s gave way to what Gianfaldone et al. (2017) describe as the era of *elitist thermotherapy*, whereby relaxation and healing in hot and cold baths became a therapeutic pursuit of the white, wealthy upper class. Bath, Baden-Baden and Aachen – amongst other spa towns – were regularly visited by European aristocrats and royalty seeking reprieve from mental and physical maladies.

Colonial hydrotherapy was not only a product and perpetuation of white supremacy and classism, but it was also closely related to projects of colonization. In his book, *Curing the Colonizers: Hydrotherapy, Climatology, and French Colonial Spas*, Jennings (2006) describes how hydrotherapy was used by the French beginning in the early 1800s to "heal the colonizer and build his morale" (p. 18). During the processes of ethnic cleansing and enslavement of Indigenous Peoples in Africa and the Caribbean, colonial administrators were often granted furlough from their posts to return to France and visit thermal spas for bathing and purification. This cleansing was intended to rid them of psychological and physical "ills" associated with the lands and peoples of West Africa and the Caribbean, as evidenced by a promotional slogan for one such spa in Vichy, France: "*Beware! Against the poison that is Africa, there is but one antidote: Vichy!"* (Jennings, 2006, p. 31).

These spas – referred to as *thermalisme* – were also constructed in many French colonies, including Guadeloupe, Madagascar, Tunisia, and Réunion. Colonizers were encouraged to visit these spas for environmental acclimatization, to soothe their moral qualms, and to cultivate their beliefs in racial and ethnic superiority over Black Africans, as well as the Caribs, Amazigh, Malagasy, and other Indigenous peoples subjected to colonial violence during the expansion of French imperialism (Jennings, 2006). In this way, colonial hydrotherapy can be seen as a tool

used to maintain a supremacist French identity and ensure continued dehumanization and oppression of Indigenous Africans through ethnic cleansing and enslavement. In Jennings' (2006) words, "hydrotherapy emerged inseparable from empire" (p. 28).

Meanwhile, projects of settler colonial expansion across the Atlantic Ocean were already well underway. Operating under the *Doctrine of Discovery* and the doctrine of *terra nullis* – which erroneously asserted that no one owned the land prior to the arrival of European settlers – colonial representatives of the British empire were violently dispossessing Indigenous Peoples in the Americas from their lands and severing their relationships to sacred waterways (Assembly of First Nations, 2018). Much like today, Indigenous communities across present-day Canada were actively resisting the projects and policies of settler colonialism, and fighting to preserve land-based knowledge systems, languages, and ways of life that the settlers sought to eradicate.

At the turn of the century, while the European upper class and imperial elite continued to soak their worries and ailments away and cleanse themselves of their moral injuries (Adams, 2016), colonists were simultaneously disrupting and criminalizing the healing relationships with land and water that First Nation, Metis, and Inuit communities had maintained since time immemorial. Colonists brought with them the philosophy of *modern water* and rapidly began diverting natural waterways – and thus, power – towards the interests of settler colonial expansion, all the while dispossessing, displacing, and institutionalizing Indigenous children, families, and entire communities. The violence and injustice of hydraulic imperialism continues in Canada to this day.

Mullan (2023) reminds us that such a summary represents "only a small fraction of what was stolen from the spirits and souls of Indigenous Peoples across Turtle Island" (p. 176). The *soul wound* of historical and ancestral trauma inflicted upon Indigenous peoples across the globe

at the hands of settler colonial states continues to have impacts into the present day: Missing and Murdered Indigenous Women and Girls, and the disproportionate representation of Indigenous people in the Canadian criminal legal and child welfare institutions and are only a few such examples. When Indigenous Land Defenders – such as the hereditary chiefs and matriarchs of the Wet'suwet'en First Nation – take action to block resource extraction projects that threaten the health of vital waterways and ecosystems, they face criminalization and incarceration by the Canadian state (Torrado, 2024). This is a stark reminder of colonialism's violent and ongoing dispossession of the waters which many Indigenous peoples since time immemorial have relied on for spiritual, emotional, mental, and physical wellbeing.

Disorders of Dysregulation and the "Water Cure" in Institutionalized Psychiatry

Prior to the creation of psychopathology as an individualized social construct in Western medicine and psychology, emotional or psychological suffering was often understood in spiritual terms. Symptoms that would likely be pathologized by today's mainstream psychiatric models might have been conceptualized as a supernatural affliction or gift in non-European cultural contexts. Based on the belief that spiritual afflictions required spiritual healing, approaches to emotional suffering generally involved the natural environment, natural water systems, spiritual practices, and social or community supports (Linklater, 2020).

While Indigenous communities and many non-European cultures around the around the globe continued to view water as sacred, relational, and spiritual in its healing properties, hydrotherapeutic approaches in the European context took a turn with the rise of Western medicine. As the Western medical model began to spread through empire and colonial expansion, so too did a disease model that called for isolation and institutionalization of those who were deemed "mad". Approaches to emotional and psychological suffering became drastically

disconnected from the holistic aspects of healing that were – and continue to be – well understood in Indigenous and pre-colonial knowledge systems around the world. What began in ancient times as an accessible and spiritual source of healing became a largely clinical pursuit, divorced from any notions of relational wellbeing, or healing connections to the natural world (Gianfaldone et al., 2017).

While the "water cure" may have conjured images of tranquil seaside settings or spa retreats for the European white, upper class, it took on an entirely different meaning with institutionalized psychiatry and the spread of asylums beginning in the 1800s. Mullan (2023) notes that during this time, psychiatric and carceral institutions existed to house and confine people who were deemed "mentally ill, poor, homeless, unemployed, and criminal" (p. 103). While white, wealthy patients sought the cure for their 'neuroses' in spa settings of cities like Vichy or Bath, those who were institutionalized in asylums in America or Europe were often subjected to restraint and forced water treatments; these were intended to subdue manic or hostile behaviors or to jolt patients from states of dissociation or depression (Cox et al., 2018).

In the early 19th century, physicians working in these institutionalized settings were designing and implementing specialized showers intended to treat those they deemed insane; cold water was used to instill fear, manipulate behavior, subdue resistance, and ultimately perpetuate the dehumanization of people deemed mentally ill (Cox et al., 2018). Indeed, a proliferation of academic publications on hydrotherapy as a treatment for mental and nervous "diseases" appears between the late 1800s to the mid-1900s in a variety of psychiatric and medical journals (e.g., Angus, 1941; Black, 1936; Dent, 1902; Jackson, 1915; Nelson & Erikson, 1949; Niles, 1899; Peterson, 1893). These are some of the earliest – and only – references in

Western academia to water as a treatment approach for emotional and nervous system dysregulation, which is the central focus of this capstone topic.

The torturous "water cures" of colonial psychiatry were not, however, entirely new. In the late 1600s, physician Jean Baptiste Van Helmont had briefly reintroduced hydrotherapy as a treatment approach for those deemed mentally ill or disturbed; historical accounts suggest that his practices involved near-death submersions of patients in frigid water with the intention to "kill the mad idea" (Brant, 2012, para 2; Scull, 2018). These approaches were taken up by other "mad doctors", such as Patrick Blair, who sought to cure various forms of so-called neuroses, hysteria, and mental disease by using forced water treatments on women who would not have sex with their husbands, and slaves who openly resisted subjugation (Hunter & Macalpine, 1963). These approaches – often akin to waterboarding – were used in institutionalized settings that pre-dated asylums, including prisons and hospitals, and were likely disproportionately applied to people marginalized on the basis of race, gender, class, and ability.

Kanani (2011) has outlined how race, gender, and madness were "mutually socially constructed" during the rise of institutionalized psychiatry in Canadian and American settler society (p. 1). The author describes how acts of resistance against misogyny, sexism, slavery, racism and colonialism, and the traumatic impacts of these harms, have often been pathologized as psychological abnormality. This concept has also been written about at length by Foucault (2013) in his *History of Madness*, where he describes how the pathologization of oppressed peoples is used as a tool of continued subjugation by the oppressors. The early clinical language of dysregulation (e.g., madness, hysteria, neuroses) was used by clinicians in psychiatric and carceral institutions to punish and subdue behaviors that reflected a resistance to injustice.

Consider, for example, the gendered notion of *hysteria*, a concept which led to the involuntary institutionalization of many women – especially racialized women, women involved in sex work, and disabled women – in hospital or asylum settings in the 1800s and 1900s (Guenther, 2024). In treating these women, Sigmund Freud very briefly recognized the source of hysteria as connected to these women's experiences of sexual abuse and rape in his *Aetiology of Hysteria* (Freud, 1986), though he quickly retracted this theory out of concern that he would lose credibility amongst the Parisian proletariat and shifted towards his now infamous theory of psychoanalysis (Herman, 2015). In discussing psychoanalysis, Herman (2015) notes that this "dominant psychological theory of the next century was founded in the denial of women's reality" (p. 14). Across psychiatric settings in Canada and the United States, it appears that marginalized people were disproportionately institutionalized and subjected to inhumane and dehumanizing water "cures" that pathologized resistance to oppression and perpetuated the injustices of sexism, racism and ableism.

With a rise in the use of psychopharmacological interventions in the mid-late 1900s, the "water cure" became less popular in institutionalized treatment settings. Interviews with nursing staff indicate that the administration of neuroleptic and sedative medications may have simply become a more efficient means of subduing patients (Harmon, 2009). In a recent review of current clinical interventions for emotional dysregulation, Easdale-Cheele and colleagues (2024) identify pharmacological interventions – in addition to psycho-therapeutic and psycho-social interventions – as a current effective treatment approach for decreasing emotional dysregulation and increasing emotional regulation. More specifically, they cite the use of antidepressants, ADHD medications (both stimulant and non-stimulant), mood stabilizers, and antipsychotics as the most common and most effective pharmacological interventions for emotional dysregulation

(Easdale-Cheele et al., 2024). While pharmacological treatments can certainly improve quality of life for some or provide enough short-term relief from symptoms to facilitate other therapeutic interventions, they often come with significant side-effects. Further, they continue to be applied within a medical model largely divorced from a healing connection to land and waters, with little attention paid to addressing the underlying systemic issues which may cause and exacerbate dysregulation in the first place.

Despite the discontinuation of the "water cure" in psychiatric settings in the late 1900s, clinical applications of hydrotherapy and its multifaceted health benefits have received continued interest in the 20th century (Albuainain, et al., 2018; Chaurasia et al., 2015; Mooventhan & Nivethitha, 2014). Some studies have investigated hydrotherapeutic approaches – generally utilizing warm water – for people with cancer (Fujimoto et al., 2017; Reger et al., 2022) and fibromyalgia (Campo et al., 2022; Langhorst et al., 2009; Silva et al., 2012), with promising outcomes for participants' psychological well-being and pain management. A recent systematic review has also indicated that hydrotherapy may be an effective intervention for improving sleep quality (Moini Jazani et al., 2023). The majority of these studies are concentrated in medical journals and physical rehabilitation literature, rather than psychological, psychiatric, or counselling publications. Perhaps, due to an increased focus on consent and ethics, and growing critiques of institutionalized, colonial models of mental health intervention, the horrors of the water cure may have rendered the intersection of hydrotherapy and dysregulation somewhat taboo; researchers and practitioners alike might prefer to sweep the lengthy and horrific history of the water cure under the rug.

In tracing the historical origins of water as a healing entity, this section brings to light a gradual shift over time from water as an accessible, natural, and spiritual source of healing and

relationship (i.e., relational ontology) to a clinical tool for treatment in medicalized and institutionalized settings (i.e., colonial ontology). It relates this shift to the rise of empire, the Western medical model, and the injustices of settler colonialism. Only relatively recently have the fields of psychology, neuroscience and sports medicine demonstrated a renewed interest in understanding the healing effects of water that Coast Salish and other Indigenous communities have understood since time immemorial. Still, a thorough consideration of social, emotional, and environmental factors is lacking in many of these explorations.

The historical context offered in this section is vital for the current exploration of water and emotional dysregulation. Without a decolonial lens, a relational ontology, and a firm grounding in ethics, the intersection of counselling psychology and healing water risks becoming a replication of the emotional, physical, social, political, and spiritual subjugation of marginalized people. Although the field of holistic wellness has widely embraced water as a healing entity, and research on the effects of blue spaces continues to grow – as is discussed in the following section – practitioners and academics alike must reckon with the legacies of colonial "water cures" and impacts on colonized peoples across the globe. We must be willing to contend with this history in order to (re)imagine the potential of water as a means of fostering emotional wellbeing and healing within and beyond the counselling field. Moving forward, Chapter 2 narrows its focus on the central research question by examining current insights about the effects of water on psychological wellbeing, and specifically, emotion.

Effects of Water on Emotional Experience and Psychological Wellbeing

Why do we go to the water? What is it about water that draws us to it in times of turmoil, change, and emotional suffering? How might our physical senses interact with water to create a sense of calm, clarity, restoration, and emotional balance? The following section considers these

questions by reviewing research in the areas of nature connectedness, blue space theory, and sensory experience of water to better understand the mechanisms by which water interacts with emotion. It seeks to incorporate both Indigenous and non-Indigenous forms of knowledge and centers the relational qualities of water and our experiences of it.

Nature Connectedness

The concept of nature connectedness has emerged across academic disciplines in attempts to describe and measure our affective and experiential relationship with the natural world. Although a unified definition of nature connectedness does not yet exist, it generally refers to "an individual's subjective sense of their relationship with the natural world" (Pritchard et al., 2020, p. 1145), and involves dimensions of emotion, beauty, contact, meaning and compassion (Richardson et al., 2019). Nature connectedness has received increased research interest alongside a recognition that the loss of direct human-nature connection – also known as the *extinction of experience* – is linked to poor mental health outcomes and detrimental effects on ecosystems (Colléony et al., 2020; Rosen, 2024; Soga & Gaston, 2016; Srivastava, 2009). The following discussion reviews specific studies related to nature connectedness that provide insight into nature's impact on our emotional experience.

In 2024, Vitale and Bonaiuto published a review which synthesized findings from 27 studies involving nature exposure, psychological wellbeing, and emotional regulation. These studies used a wide range of assessment measures of emotion regulation – including self-report and physiological measures – and included a variety of different nature exposure methods (e.g., walking, video, images). In their review, the authors report overall findings that nature exposure was significantly associated with more adaptive emotional regulation strategies (including mindfulness and cognitive reappraisal), as well as general wellbeing and happiness. Further,

nature exposure showed negative associations with maladaptive strategies, emotion regulation difficulties, perceived stress, worrying, and rumination (Vitale & Bonaiuto, 2024). This robust review emphasizes the significance of natural environments – including waterways – for providing meaningful opportunity for emotional regulation.

Another systematic review by Ríos-Rodríguez and colleagues (2024) delves deeper into this connection, exploring the relationship between nature contact and emotional regulation. The authors found that the process of emotional regulation in nature can occur *consciously*, whereby people deliberately seek out natural spaces to modify the "type, intensity, quality, or duration" of emotional experience (p. 1). They go on to suggest that emotional regulation in nature can also occur *automatically* (or unconsciously); in this case, emotional experience is transformed through sensory perception without a person's full awareness or intention. Ríos-Rodríguez et al. (2024) cite Korpola's (1992) *environmental self-regulation hypothesis* to emphasize that people are not only passively impacted by their physical surroundings but can (and do) deliberately alter their emotional experience through interactions with their environments, and more specifically, natural environments. Interestingly, Korpola and colleagues' (2020) research, as well as findings from a study by White et al. (2010) indicate that participants preferred and sought out natural spaces containing water in order to regulate their emotions.

Emotional regulation has also been suggested as a mediating factor in the relationship between nature connectedness and happiness. In a 2018 study involving 153 participants, Richardson and MacEwan (2018) investigated the relationships between nature connectedness, happiness, and emotional regulation using a 30-day nature exposure program. The authors found that emotional dysregulation mediated the associations between nature connectedness and happiness; in other words, participants who reported less connection to nature experienced

greater difficulty in emotional regulation (and perceived less happiness) than those who reported a greater connection to nature. In discussing their findings, Richardson and McEwan (2018) emphasize the importance of fostering a *relationship* with nature, stating: "well-being in nature is not just about visits and exposure to nature. There is a need to engage in an affective relationship, to notice and become sensitive to nature's beauty to access the wider benefits of nature connectedness and well-being" (para. 33). This quote aligns with other research on nature connectedness that suggests mindfulness may enhance nature's positive impacts on our emotional experience (Howell et al., 2011; Nisbet et al., 2019), and that contact with nature may reduce loneliness (Astell-Burt et al., 2024). In culmination, this evidence is indicative of a relational ontology of water – discussed in the first section of Chapter 2. Perhaps we must believe in the possibility of *relationship* with water (and nature) in order to experience potential psychological and emotional benefits.

These studies contribute to a growing body of research that identifies emotional regulation as the mechanism by which nature connectedness and exposure elicits psychological wellbeing (Bakir-Demir et al., 2021; McMahan & Estes, 2015; Roe et al., 2017; Zhang et al., 2022). Although these studies provide some insight into the potential relationships between emotional regulation and nature, they do not differentiate between *green* and *blue* spaces and therefore does not provide sufficient evidence to support any specific claims regarding water and emotion. The following sections explore research that focuses specifically on water – in both natural, urban, and clinical settings – and its effects on emotional wellbeing.

Blue Space

> Throughout my life I've looked to the water. It can have many faces. It can be calm and neutral. It can be dangerous. You know, it has many reflections. And so I think that it is a

> very good teacher for us. So what I realized in my life, when I get into a pickle or something happens to me, I go like the water. I go still, calm, neutral, like a still lake. And when I need strength, I can think of it another way, that it's moving and we continue to move. And it has a goal. It goes to the ocean. It has many, many teachings (Anderson, 2010, p. 18).

This quote from Elder Marie Anderson of the Nlaka'pamux First Nation provides a reminder that for thousands of years, humans have gone to the water to cope with stressors, navigate intense emotions, and make meaning of experience through its symbolic rhythms. It appears that we have a natural affinity towards these so-called *blue spaces* for their affective, relational, and transformative qualities.

In his 2015 book, titled, *Blue Mind: How water makes you happier, more connected, and better at what you do*, author Wallace J. Nichols writes extensively about these qualities. He outlines how the sounds, sights, smells, and sensations of natural water can have a profoundly calming effect on our nervous system and help us to regulate and make sense of our emotional experience, ultimately reinforcing our connection to the natural world and each other (Nichols, 2015). Indeed, a growing body of research on blue spaces aligns with these propositions and supports the notion that spending time in and around water – especially natural, moving water – is a significant contributor to emotional, physiological, and overall wellbeing (Atkinson, 2019; Britton et al., 2020; Buser et al., 2018; Gascon et al., 2017; Hermanski et al., 2022; Luo et al., 2023; Olive & Wheaton, 2020; Poulson et al., 2022; Vert et al., 2020; White et al., 2020; Wright et al., 2024). This phenomenon has been tested in a variety ocean, freshwater, and urban settings, with findings suggesting that blue spaces have the potential to improve mood (Vert et al., 2020), reduce stress and promote relaxation (Poulsen et al., 2022), and improve psycho-social wellbeing

(Britton et al., 2020). In culmination, this research suggests significant restorative benefits to psychological and emotional wellbeing, although specific associated biomarkers are not yet fully understood (Hermanski et al., 2022).

Psychological restoration – referring to a sense of release, calm, clarity, renewed energy and focus, often in reference to nature-based experiences – is a reoccurring construct in research on blue spaces and mental health, with findings suggesting that both urban and natural blue spaces have great potential to recharge a depleted mental state, renew hope and vitality, increase directed attention ability, decrease negative affect, and increase positive affect (Fleming et al., 2022; Luo et al., 2023; Wyles et al., 2019; Zhao et al., 2024). In a review of 50 studies conducted across 18 countries, White et al. (2021) found significant support for psychological restoration as a mechanism by which blue spaces promote human health. They found that the majority of studies reported that blue space availability and visibility was associated with specific restorative benefits, including reduced stress and psychological distress, improved mental and emotional wellbeing, and had a positive effect on anxiety and mood disorders. They also found that these restoration benefits were more strongly associated with areas that had greater amounts of blue space, as opposed to increased contact with blue space (White et al., 2021). This may suggest that the emotionally restorative effects of water do not necessarily require being *in* or *on* the water. It also indicates that proximity to large bodies of natural water (e.g., lakes, oceans) may have a particularly potent effect on emotional wellbeing.

The ocean is the largest body of water on earth; its expansiveness leads one to wonder why we call it planet *earth* and not planet *water*. The ocean appears to have profound impacts on our emotional state. Feelings of awe, nostalgia, freedom, calm, and safety, as well as emotional vulnerability, psychological restoration, and emotional regulation have been associated with

experiencing the ocean shore. In a qualitative study of Belgian youth and the connection between emotions and the ocean, Severin et al., (2022) found that participants spontaneously described emotion regulation strategies they used in connection to the coast, which the authors distilled into three themes: (1) *reflection* (on problems, life, and emotion), (2) *meaning making* (acceptance of difficult experiences or events, positive reappraisal) and (3) *letting go* (or externalizing emotions). For one participant with Autism Spectrum Disorder (ASD), the coast was described as a place where he could connect with his emotions and feel soothed by the predictability, simplicity, and rhythmicity of the waves (Severin et al., 2022).

Outdoor or natural blue space has also been identified as a "salutogenic factor" (Gascon et al., 2017; White et al., 2020; Kabisch et al., 2017), referring to a factor that increases an individual's sense of coherence (comprehensibility, meaningfulness, manageability), and supports their ability to access physical, cognitive, emotional, interpersonal, and macrosocial resources (Bhattacharya, et al., 2020). The theory of *salutogenesis* was developed by Israeli American sociologist, Aaron Antonovsky (1979), who studied the health behaviors and trajectories of women who had survived concentration camps during the Holocaust. His model acknowledges the inevitability of suffering in life and focuses on the origins of health and wellbeing (salutogenesis) as opposed to the disease-oriented model of Western medicine which focuses on the origins of illness and pathology (pathogenesis). It also appears that sense of coherence (the central concept in a salutogenic model) may be driven and maintained by emotional regulation (Karagiannopoulou et al., 2023). In other words, emotional regulation might support individuals to live comprehensible, meaningful, and manageable lives, even in the face of significant stressors and challenges. These and similar findings may have important

implications for the integration of waterscapes or blue spaces for public health and environmental design in a variety of settings (Zhang et al., 2021).

Thus far, studies in this section have investigated the impacts of nature and water on psychological wellbeing in non-clinical samples. There are very few studies that specifically investigate the impacts of blue space on emotional wellbeing in people with mental health challenges or diagnoses. A recent publication by Wright et al. (2024) provides insight into this area and amplifies the often-marginalized voices of people who have lived experiences of serious mental illness (SMI). Their research consisted of semi-structured interviews with adults in the United Kingdom who had been diagnosed with bipolar or schizophrenia. Through their interviews, the authors found that participants sought out blue spaces as *affective sanctuaries*, where they could manage emotional intensity, find connection, and experience a shift in perspective and mood (Wright et al., 2024). This research suggests blue spaces may have profound therapeutic value for people with SMI who experience significant difficulties with emotional dysregulation.

The first theme that emerged from Wright et al.'s (2024) interviews involved an emotional "reset", akin to psychological restoration, whereby mania, hyperarousal, worry, and rumination were reduced and participants felt emotionally replenished. Participants also described feeling an energetic exchange in blue spaces, where the sensory qualities of the water either absorbed their emotional hyperarousal (e.g., mania, anxiety) leaving them feeling calmer, or in contrast, offered them emotional energy and vitality and shifted them out of hypoarousal or depressed moods. This suggests that certain blue spaces may have the potential to up-regulate and down-regulate the autonomic nervous system and support people in widening or returning to their window of tolerance. This may also have something to do with the water's repetitive

movements. Similarly to the participant with ASD in Severin et al.'s (2022) study, multiple participants in Wright et al.'s (2024) study described a calming effect of the rhythmic predictability of waves and other moving waters. The authors note that natural blue spaces are unique in this sense, as the water's "changeability sits within predictable repetitive parameters, meaning that the unpredictability tends to feel contained and unthreatening" (p. 854).

A second theme reported by Wright et al., 2024) indicated that participants gravitated towards blue spaces for a non-demanding relational experience, where the water provided "empathetic, non- judgemental and undemanding forms of more-than-human connection in a resonant sensory environment" (p. 850). For individuals whose experience of emotional dysregulation and SMI create interpersonal difficulties, loneliness, and isolation, this is a particularly significant finding. Water appeared to offer participants a sense of connection and relationship without the expectations and demands of typical social interaction; as one participant describes, water "isn't asking anything of you" (Wright et al., 2024, p. 855).

Another related theme included the development of a "blue identity", whereby participants experienced a sense of self in relation to land and place, mediated by the water. One participant described: "it's like someone touching you or hugging you, it gives you that grounding of reminding you of where you are, who you are in the space" (Wright et al., 2024, p. 856). These experiences of connection resonate with the insights shared by Elders in Anderson's (2010) work; Elder Josephine Mandamin states, "there's times when I stand by the water, and I can feel the pulsing, the pulsing of the water standing by the shore. I can feel that connection myself with the water" (Anderson, 2010, p. 12). Again, this notion of a more-than-human connection is characteristic of a relational ontology of water, which speaks to the significance of blue spaces in eliciting a felt sense of interconnection with an entity greater than oneself.

A final theme in Wright et al.'s (2024) study explored the concept of a *therapeutic blue intervention,* which described participant recommendations for utilizing blue space as a form of therapy unto itself and integrating blue spaces conventional counselling or pharmacological interventions. Final considerations included a discussion of the barriers participants experienced in accessing blue spaces and alternative blue encounters used by participants when conventional blue spaces were not accessible. These alternatives included using videos, images, or sounds of sounds of water, going to swimming pools, bathing or showering, standing in the rain, and visiting urban water features (Wright et al., 2024).

Indeed, seemingly simple and accessible activities involving engagement with water appear to have positive effects on mood and may be helpful when blue spaces are inaccessible. For example, one recent experiment conducted by Hassan and Deshun (2023) found that participants who spent 15 minutes watering indoor plants experienced significant reductions in blood pressure, and increased self-reported happiness compared to a control. Perhaps this type of activity also contains some element of reciprocity, or a meaningful way to engage in a relationship with the natural world using water.

Although Wright et al.'s (2024) sample size was small (19 participants) and racially homogeneous, it is unique in its inclusion of voices of individuals living with SMI and significant emotional dysregulation. It offers an initial exploration into how people experiencing chronic emotional dysregulation might make meaning of water as a source for emotional regulation and wellbeing and opens the doors for further research in this area.

Thus far, the research presented has focused on water and emotional regulation through experiences of nature connectedness and blue spaces. The following section adds specificity to the present exploration by providing insight into the sensory qualities of water (e.g., tactile,

auditory, visual), and their impacts on wellbeing and emotion. These studies investigate the impact of water on sensation and emotion in natural, simulated, and clinical settings.

Water as a Multifaceted Therapeutic Medium

The literature reviewed thus far in this section has indicated that water offers a powerful and profound medium through which humans can experience and modulate emotion and sensation, allowing the mind to extend "outwards into the environment along multiple sensory pathways" (Ingold, 2000, p. 18). Elder Mary Thomas' description of *going to the water* quoted earlier in this chapter alludes to this multidimensional experience of water, involving sights, sounds, tactile sensation, spirit, metaphor, and relationality. In an article titled *Common Senses: Water, Sensory Experience and the Generation of Meaning*, Strang (2005) echoes these multidimensional therapeutic qualities, and grapples with the complex integrations of cognition, emotion, sensation, and culture related to experiences of water. As the present exploration moves towards applicability of these themes to the counselling setting, the following sections draw from recent research on the effects of water's sensory and metaphorical qualities to better understand mechanisms by which water influences human emotion and wellbeing.

Auditory and Visual Senses: Sights and Sounds of Water. In natural blue space settings, auditory and visual stimuli of water are often co-occurring, leading to difficulty in determining the extent to which the sights and sounds of water might independently impact emotional state and wellbeing. Is simply *seeing* water sufficient to have an effect on emotional wellbeing? Does *hearing* the sounds of water have an impact, without an accompanying visual? Laboratory settings have been used to isolate and study the effects of water visuals and water sounds on emotion, with promising results and implications for environmental design.

In experiments utilizing virtual reality, listening to water sounds has been found to lower participant heart rates and levels of anxiety, and promote healthy autonomic nervous system activity (Hsieh et al., 2023; Hsieh & Yang, 2022). Zhang et al. (2022) have conducted similar research using EEG to detect psychophysiological responses to the sounds of natural spring water on a sample of college students; findings suggest that these sounds activated neural networks associated with positive mood states and improved participants' mood after 60 seconds of listening (Zhang et al., 2022). Other recent investigations have found that sounds of running water reduce pain and anxiety during medical procedures (Çulha et al., 2023, Sayilan et al., 2024) and can mitigate stress responses caused by the sounds of traffic (Deng et al., 2023). A participant in the aforementioned study by Strang (2005), describes the auditory qualities of water and its potential relation to our earliest origins, stating:

> Maybe it's something to do with the womb – maybe it's something we come into this world with. A lot of people do seem to take to water, or enjoy it that way…It just seems to be a soothing thing to hear water running. (p. 100)

These studies indicate that the sounds of moving water can have a positive impact on our emotions and physiology, even when imagery or visual of water is absent. They also suggest that when used in stressful situations, sounds of water may have a widening effect on the window of tolerance, reducing stress, anxiety, and perceived pain.

Research on the emotional effects of viewing water, specifically, are limited. One phenomenological study indicated that looking at a view of the ocean was perceived by participants as a mindful, embodied, and multisensory experience that supported their emotional restoration (Hurdman & Kampman, 2024). Other, more general research on nature visuals has suggested that viewing natural scenes (compared to urban scenes) may significantly increase

sense of comfort and relaxation and reduce hyperactivity in the orbitofrontal cortex (Yamashita et al, 2021). In a qualitative study of waterscapes and mental health in prison environments, participants who were incarcerated described therapeutic effects of being able to view of the ocean, which included improved sleep and feelings of "happiness, comfort, ease, tranquillity, relaxation, stress-reduction, restfulness and peace" (Jewkes et al., 2020, p. 387). Viewing the ocean's sea life and weather patterns, as well as sunsets and sunrises over the water, appeared to provide participants with a sense of connection to the community outside of prison and the natural world, despite their social and physical isolation (Jewkes, 2020). These findings echo similar insights from research integrating the sights and sounds of water and other natural elements into institutional environments (e.g., prisons, hospitals) to support social, spiritual, and emotional wellbeing (Engstrom et al., 2022; Labonte-Gregory, 2016; Woodland et al., 2019).

These findings on the effects of auditory and visual representations of water reflect findings from previously discussed studies, where participants reported utilizing water sounds and visuals to manage emotional distress or intensity when more direct experience of water was not accessible or available (Wright et al., 2024). It appears that representations of water in indoor spaces can have significant effect on mental health, suggesting that water might be an accessible and meaningful environmental approach to supporting emotional wellbeing in contexts where environmental or mobility barriers make direct engagement with water in the natural world more challenging.

Tactile Senses: Water Immersion. Water immersion, as discussed throughout the present chapter, has been used to address various emotional, physical, and spiritual ailments for centuries. Therefore, the studies analyzed in the following section can been considered as a continuation of long-standing curiosities about the effects of water immersion practices (e.g.,

balneotherapy, hydrotherapy, cold water immersion, spirit bathing) on mental health and wellbeing. This section considers the impacts of both cold and warm water immersion on emotional wellbeing and explores water's unique ability to provide a variety of inputs to our tactile (touch, pressure, temperature, texture), proprioceptive (position and movement in space), vestibular (balance, coordination), and interoceptive (internal sensations, signals, cues) sensory systems.

Warm Water Immersion. A handful of studies conducted over the last decade have investigated the impacts of warm water immersion on mental health and emotional wellbeing. Again, these hypotheses are not novel; rather, these immersion practices have been used for centuries, as previously discussed. According to a scoping review, depression and anxiety symptoms appear to be amongst the most amenable to warm water hydrotherapeutic interventions (Clark-Kennedy et al., 2021). In a review of aquatic therapy, sensory integration, and PTSD interventions, Herold and colleagues (2016) note a significant lack of research in this area and argue that water therapy may be an effective treatment modality for a variety of PTSD symptoms. The following section reviews these approaches and other evidence of emotional and relational outcomes of therapeutic warm water immersion.

Benfield et al. (2025) recently conducted a qualitative investigation of the effects of warm water immersion for symptoms of PTSD in military veterans. They found that a 45-minute warm water immersion in a pool setting produced positive psychological and physiological effects for participants. The effects of the immersion described by participants were grouped into five themes, including a rhythm of relaxation, mental clarity and calm, reduced pain, and an embracing of the comforting properties of water (Benfield, et al., 2022). One participant described, "it makes me feel like I'm being embraced. It feels like a warm hug" (p. 7).

Participants also reported feelings of connection to the water: one participant described how he "felt one with the water" while another stated, "I feel like the water… you just feel like part of it." (p. 7). These insights indicate, yet again, relational qualities of water, and water's ability to foster feelings of connection. Another participant spoke about a larger connection to blue spaces and their effect on emotion, stating, "for me, water always has beneficial effect, even whenever I feel super depressed or anything, I need to go to see water…I think I'm not the only person that feels better near the water" (p. 7). Interestingly, Benfield et al.'s (2015) study appears to be one of the only investigations of warm water therapy and its effects on PTSD symptoms, in addition to a study conducted by Corcoran et al. (2014), which had similar findings. Although the sample size in Benfield and colleagues' (2025) study was small, it provides preliminary evidence that water immersion outside of natural settings may still have significant effects on emotional state, wellbeing, and sense of connection.

Warm water immersion has also been associated with the previously discussed concept of *salutogenesis* in research examining whether this form of immersion provides a sense of coherence for people giving birth. In a meta-analysis, Cooper & Briley (2023) reviewed 40 studies and found that warm water immersion increased sense of coherence during birth by making the experience comprehensible, meaningful, and manageable to participants. Similarly to the previously discussed studies on sounds of running water, this study suggests that water can have a mitigating effect on stress responses and support emotional regulation by widening the window of tolerance.

Meta-analytic studies have also indicated that warm water immersion may reduce symptoms of depression and anxiety (e.g., Koroglu & Yildiz, 2024). In comparison to a conventional psychopharmacological intervention (paroxetine) for the treatment of generalized

anxiety disorder (GAD), Dubois et al. (2010) found that warm water immersion therapy produced greater reductions in anxiety symptoms. Further, they found that participants in the warm water immersion condition demonstrated significantly greater sustained effects of the treatment and had greater remission rates when compared to the paroxetine condition (Dubois et al., 2010). The authors suggest that these results indicate warm water immersion may be a viable treatment alternative to conventional SSRIs in the treatment of GAD.

It also appears that the sensation of floating in warm water can create emotional experience of lightness, calm, and alleviate anxiety symptoms. This was a finding in Benfield et al.'s (2015) research on water immersion and PTSD symptoms, as well as more recent investigations of the emotional and physiological effects of single-session floatation experience (Feinstein et al., 2018). In an RCT study on the effects of repeated floatation experiences, Jonsson and Kjellgren (2016) found significant reductions in GAD symptomology and improvements to sleep and emotional regulation in the experimental group, with positive results sustained six months post-intervention (Feinstein et al., 2018; Jonsson & Kjellgren, 2016). More recently, Garzaglass and colleagues (2022), have integrated relational psychotherapy techniques with these findings to propose Aquatic Relational Experiential Therapy (ARET). This novel approach utilizes the therapeutic relationship, the aquatic environment, and the concepts of buoyancy to support relational wellbeing, emotional resilience, personal autonomy, and self-efficacy.

In culmination, these varied applications of water as a therapeutic medium emphasize its unique ability to support emotional and physiological regulation through the stimulation of – and integration between – our tactile, vestibular, proprioceptive, and interoceptive sensory systems.

Cold Water Immersion. The emotionally beneficial dimensions sensory experience with water are not limited to warm water applications. Earlier in this chapter, involuntary cold-water immersion was discussed in the context of psychiatric treatment of acute physiological and emotional dysregulation. Cold water immersion has also received significant attention in the past decade in the field of sports medicine. Research in this area has repeatedly demonstrated that cold water's physiological effects on the body can support recovery following physical exercise by reducing inflammation and fatigue, supporting immune system function, and improving overall cardiovascular health (Espeland et al., 2022; Wilcock et al., 2006). Studies referenced in the remainder of this section were published between 2019-2025 and focus on mental health outcomes of cold-water immersion interventions. The majority of these studies focus on cold water immersion in natural settings (e.g., ocean, lakes, rivers), while some investigate cold water immersion in more controlled settings (e.g., ice bath). Much of the emergent research in this area appears to explore outcomes related to clinical symptoms of anxiety and depression (Carona & Marques, 2024).

The practice of immersion in natural bodies of cold water – often referred to as "wild swimming" – has grown in popularity in Europe and the Americas over the last decade. In a scoping review of mental health benefits of open water swimming, Overbury et al. (2023) identified that open water swimming in cold water reduced anger, tension, fatigue, and other symptoms of depression and anxiety in participants. In discussing these outcomes and potential therapeutic mechanisms, these authors suggest that open water swimming involves embodiment, mindfulness, and community, and may be an accessible and affordable means of increasing socio-emotional wellbeing. In another recent study of wild swimming, one participant described their experience in relation to mindfulness:

> You have to be present. Like it's like the most mindful experience ever . . . you don't have time to think about how you feel before you don't have time to think about what's going to come after. It's like you're so present. (McDougall et al., 2022, p. 7).

Other authors have similarly emphasized the significance the interplay between emotion, sensation, and relationship in in wild swimming practices. Atkinson (2019) notes that:

> The attention to the experience as encounter between water, body, sensation and emotion is explicitly complex and relational; well-being is emergent within the assemblage of embodied material and emotional components (p. 190).

These novel and dynamic insights provide early support for the potential physical, mental, and social health benefits of cold-water swimming in both freshwater and ocean settings (McDougall et al., 2022). Although these outcomes could be attributed to the physical movement of swimming, rather than the water and natural environment, it appears that cold water immersion has significant positive effects on mood even when swimming or aerobic exercise is absent.

In a recent scoping review of cold-water immersion, Ono et al., (2025) identified four main themes of these practices: physical and psychological benefits, personal growth, connection to nature, and sense of connectedness. The two latter themes once again indicate a relational quality of water. Participants in the reviewed studies frequently reported their experiences of cold-water immersion as having social and connective qualities, fostering attachment and relationship to friends, family, and larger community, as well as the natural environment and ecosystems (Ono et al., 2025). One participant in a qualitative study conducted by Murray and Fox (2021) offers a description of relationship with the ocean that they experienced through cold water immersion in nature, stating, "the personality of the sea becomes your friend in a strange way" (p. 93). Ono et al., (2025) also identify cold water immersion as a tool used by participants

to support reduction or discontinuation of psychotropic medications, and as a way to cope with or alleviate difficult emotional experiences including grief and depression (Ono et al., 2025).

The potential anti-depressant effects of cold-water immersion activities have also received increased attention in recent years, and multiple studies have investigated cold water immersion as a standalone treatment intervention or as an adjunct intervention used alongside conventional treatments. In a recent feasibility study involving participants aged 20-69 with a clinical diagnosis of depression, Hjorth and colleagues (2023) demonstrated that twice-weekly group-based cold-water immersion in natural settings was a safe and viable means of improving overall wellbeing and suggest it as an impactful adjunct treatment for depression symptoms. In studying the outcomes of a 10-day program involving cold water immersion, breathing exercises, and meditation, Faid et al. (2022) found significant reductions in perceived stress and depression symptoms and increases in overall wellbeing following post-intervention.

Single (as opposed to repeated) cold water immersion has also been linked to reduction in negative affect and increase in positive affect lasting up to 180 minutes following the immersion (Kelly & Bird, 2022; Reed et al., 2023). In addition to positive impacts on mood, brief immersion in cold water has also been shown to increase interaction between neural networks responsible for attention control and emotional regulation (Yankouskaya et al., 2023). In a recent qualitative study on cold facial immersion (CFI) as an intervention for panic symptoms, participants reported experiencing a sense of calm, relaxation, and rejuvenation following the CFI task, and found it to be effective in preventing or interrupting acute panic symptoms (Kyriakoulis & Caballero, 2024). Despite the short-term effects of these immersion experiments, they indicate that a single-immersion approach may be an effective emotional regulation strategy for alleviating acute emotional intensity and dysregulation.

Of course, immersion in natural bodies of water poses unique risks to physical safety, such as drowning, hypothermia, or other physical injuries; vital safety considerations related to cold water immersion and wild swimming are discussed in Chapter 3. Despite these risks, the existing research demonstrates that it is possible to mitigate such safety concerns and study wild swimming or cold immersion interventions *in situ* within the natural environment. Further, they identify such activities as a potentially viable treatment approach for addressing symptoms of dysregulation associated with anxiety and depression.

Based on the evidence presented thus far, it appears that spending time in and around blue spaces – or even simply listening to the sounds of moving water – can have a profound and measurable impact on our emotional state and wellbeing. This aligns with research evidence compiled by Rodriquez and Kross (2023) indicating that deliberately engaging the physical senses can enhance positive emotions while reducing the intensity of negative ones. These authors go on to describe how sensation can be used to up-regulate or down-regulate emotional experience, suggesting that sensation can provide a "rapid and relatively effortless path to emotion regulation" (Rodriquez & Kross, 2023, p. 379). Indeed, based on research findings explored in this section, sensory interactions with water have been shown to reduce symptoms of emotional and physiological dysregulation associated with depression, anxiety, and PTSD. The sensory effects of water may have a "widening" effect on our Window of Tolerance (Stanley, 2019), increasing our sense of calm, clarity, and mental restoration, and potentially building capacity for tolerating discomfort or distress by connecting to the present moment, the self, others, the natural environment, and water itself as a relational entity.

Though research evidence on its effects are still relatively novel in Western academia, cold water immersion in natural settings is not new; knowledge of the benefits of cold-water

cleansing have existed since time immemorial, and these practices continue to be used as a medicine for many First Nations peoples across what is known today as British Columbia. As Elder Marie Louie shares:

> If you go to the water early in the morning and get into it before anybody's up or around, that water will strengthen you because your spirit cries for that water, not just your shower or your tub water; it's tired of the hot water, it wants cold water (Blackstock, 2001, p. 5).

Without recognition and honouring of the lengthy existence of such practices, the current swell in research interest on the topic of cold-water immersion or "cold plunging" contributes to the erasure of longstanding Indigenous wisdoms. Further, it will risk further marginalizing these knowledge systems by "discovering" and appropriating cultural practices that Indigenous peoples have fought to preserve and share with younger generations.

Water and Meaning-Making. "Water is a carrier of both therapeutic mechanism and meaning…the importance of mechanism to cure is secondary to the importance of meaning to healing" (Dammann, 2012, p. 1). These words from Dammann (2012) suggest that the significance of meaning cannot be overstated in our understandings of water's therapeutic benefits. Indeed, water is profoundly existential in its symbolism and meaning. Consider, for example, the quote from Siegel (2009) shared at the beginning of Chapter 2. He describes observing rhythms of the sea and making meaning of his experience and mood in the context of a seemingly endless pattern of water's movement that transcended his own lifetime. Although these metaphorical and symbolic qualities of water are not necessarily directly connected to physical sensation, they are cognitive and spiritual representations of the human experience.

These meanings may be conveyed linguistically; for example, in idioms such as ‘going off the deep end’, ‘still waters run deep’, ‘waves of grief’, ‘flow state’, ‘tip of the iceberg’, ‘treading water’, or being ‘flooded with emotion’. Many social, physiological, emotional, and spiritual aspects of the human condition can be conveyed in metaphors relating to water. Strang (2005) argues that water is the most-referenced aspect of the natural world in literature, art, and poetry. Indeed, the notion of “going like the water” or “being like water” have appeared throughout literature, poetry, film and music for centuries. Bruce Lee famously described this metaphor as a philosophy for life in a 1971 interview:

> Be like water making its way through cracks…adjust to the object, and you shall find a way around or through it. If nothing within you stays rigid, outward things will disclose themselves. Empty your mind, be formless. Shapeless, like water. If you put water into a cup, it becomes the cup. You put water into a bottle and it becomes the bottle. You put it in a teapot, it becomes the teapot. Now, water can flow or it can crash. Be water, my friend. (Calpeper Minutemen, 2018).

Perhaps its dynamic and dialectical nature is what makes water a particularly apt vehicle for metaphor and meaning about the human experience. It encourages psychological flexibility in being *both, and* rather than *either, or*. It is present, yet ungraspable; it is fluid, yet unrelenting; it gently trickles and caresses, yet it can crash and destroy with frightening power; it can give and take life; it can be deep and dark, or clear and transparent. Water asks us to consider, without shame, that we as humans may have equally powerful dialectical forces at play within ourselves.

In addition to the dialectical, water appears to lend itself to metaphor and philosophical thought through its omnipresent or transcendent qualities. For example, in David Foster Wallace’s famous 2009 speech, titled, *This is Water*, he describes a scene where older fish swims

past two young fish, and asks, *How's the water?* A few moments later, one young fish turns to the other, confused, and asks, *What's water?* Wallace uses water in this parable to impart a message about consciousness, and to emphasize the importance of expanding awareness to notice the aspects of life, culture and existence often overlooked or taken for granted (Wallace, 2009). In a similar vein, referencing the significance of relationships to healing, Robb (2007) suggests, "you can only swim in water; you can only move and be moved in relationships, and we are all, always in relationships" (p. 178). Here, relationality becomes the water we swim in; Robb (2007) points out that we often overlook our interconnections and relationships to one another. Hall (2022) uses a comparable metaphor in her book, *I'm Tired of Racism,* to remind readers that racism – like white supremacy – can be understood as the water we collectively swim in, rather than the shark that sporadically attacks from the depths. In these examples, metaphors of water invite us to expand our consciousness and illuminate the presence and impact of implicit social and systemic forces in our lives.

Meanings of water and human experience also appear to involve emotion and spirit, especially in Coast Salish culture and a relational ontology of water. Elder Marie Anderson's words included in the previous sections allude to water as a source of relational and emotional strength, as well as meaning-making:

> When I get into a pickle or something happens to me, I go like the water. I go still, calm, neutral, like a still lake. And when I need strength, I can think of it another way, that it's moving and we continue to move. And it has a goal. It goes to the ocean. It has many, many teachings (Anderson, 2010, p. 18).

For Marie Anderson, water appears to hold significant meanings and teachings about life, emotion, and ways to navigate challenges. These meanings also appear to have gendered

significance, with women and water being fundamentally interconnected. In a 2022 study on water led by Six Nations women found that "gender played a considerable role across surveyed Indigenous communities, with females consistently rating the cultural importance of water significantly higher than their male counterparts" (Sioui et al., 2022, p. 63). In a creative project titled *Snewíyalh tl'a Stakw - Teachings of the Water,* Rebecca Duncan of the Squamish Nation describes the many teachings of water in her language and culture, and the connections between song, women and water (Elektra, 2022). This connection is recognized across many First Nations, though specific practices or cultural teachings about women and water are unique to specific communities. For example, *water walking* appears to be a gender-specific cultural activity in some Anishinaabe communities, and involves ceremony, cultural responsibilities, and water protection efforts (Deerchild, 2015).

The significance of these cultural practices reaches far beyond mere metaphor or symbolism. Cultural teachings (about water ceremonies or specific protocols) are not repeated in the present project out of respect for the sacred context in which these teachings and ceremonies are intended to be shared, and the rights of Indigenous communities to autonomy and control over their traditional knowledge. In her book, *Wayi, Wah! Indigenous Pedagogies: An act for reconciliation and anti-racist education,* Jo Chrona (2022) describes the importance of "learning *from*" rather than "learning *about*" Indigenous Peoples as a fundamental tenet of Indigenous-informed pedagogy (p. 115). In keeping with this Chrona's invitation, readers are encouraged to learn directly from the published works of the Indigenous authors and knowledge keepers referenced throughout this capstone (i.e., McGregor, 2015; Blackstock, 2001; Gursoz, 2014; Anderson, 2010) and to support local Indigenous communities in water protection efforts and assertion of their sovereign rights to land and waterways.

It appears that both Indigenous and non-Indigenous women throughout history have used the imagery and qualities of natural water to give voice to their experiences or philosophies of life. Sylvia Plath often looked to water to make meaning of treacherous emotional landscapes; she wrote extensively and poetically about the ocean throughout her life (Boev, 2022). In a piece titled *Ocean 1212-W*, she explores her identity, childhood, and connection to the sea as a source of calm, writing "I sometimes think my vision of the sea is the clearest thing I own" (Plath & Hughes, 1979, p. 142). In *Gift from the Sea*, written by the seaside in 1955, Anne Morrow Lindbergh uses a myriad of water metaphors into her exploration of gender, family, society, and solitude; her words spoke to a generation of women who sought to make meaning of their lived experiences in the trough between the first and second waves of the feminist movement (Lindbergh, 1991). The following popular quote from Maya Angelou offers another metaphor of water in the context of gender: "a woman in harmony with her spirit is like a river flowing. She goes where she will without pretense and arrives at her destination prepared to be herself and only herself" (Angelou, as cited in McCutchen, 2020, para. 1). Themes of womanhood, femininity, and water appear to have strong connections across cultures and throughout various forms of literary and artistic expression.

These examples represent a mere drop in an ocean of meaning that humans have made of life through the conduit of water. They indicate that water holds profound spiritual and emotional meaning which can support us to understand grief, loss, change, power, relationship, identity, and find coherence in even the most painful aspects the human experience. They invite psychological flexibility through a consideration of the dialectical and challenge us to expand our conscious awareness to better understand how and why we move through the world. These symbolic qualities of water are significant for the counselling field, where metaphor can be used by clients

and counsellors alike to convey emotional experience or psychological concepts and support meaning making.

Chapter Three: Discussion and Applied Practices

Discussion

The present capstone adopted a multidisciplinary approach in exploring its central research question: *How can water support emotional regulation?* This question was framed through within a relational ontology to conceptualize water as a living entity existing in reciprocal relationship with humans since time immemorial. This theoretical underpinning stands in contrast to mainstream colonial ontologies which view water as a resource for consumption and manipulation towards advancement of capitalism and industrialization. Building from a relational ontology, this capstone has drawn from a variety of sources to paint a dynamic picture of water and its potential for supporting psychological, spiritual, and relational wellbeing in both clinical and non-clinical settings.

In Chapter 2 I presented theoretical and applied evidence from the field of affective neuroscience and interpersonal neurobiology to posit emotional regulation as a vital aspect of our individual and collective wellbeing, and emotional dysregulation as a compelling transdiagnostic treatment target. It emphasized the role of our autonomic nervous system using the window of tolerance model, and highlighted the constant interplay between cognitive, somatic, social and environmental factors in the creation and interpretation of our emotional experience. Drawing from current and historical literature, it went on to trace water's significance in Indigenous healing practices from ancient times until the present day. It critiqued the Eurocentric medical model's colonial reinterpretation of the "water cure", which divorced water-based healing practices from the natural world and gave way to the inequities of colonial hydrotherapeutic practices and the injustices of involuntary cold-water interventions used in psychiatric institutions up until the mid-late 1900s. In doing so, it urged readers to consider therapeutic use

of water through a decolonial, anti-oppressive lens and highlighted relationship, interdependence and community as paramount in a holistic approach to healing.

In bringing its focus to water's potential intersections with counselling psychology, Chapter 2 went on to explore water's effect on emotion and sensation. Research insights from the areas of nature connectedness and blue spaces provided evidence for water's profound impact on wellbeing, and more specifically, emotional and physiological regulation. Recent findings discussed in this section suggest that proximity, visibility, and accessibility of both urban and natural bodies of water can be considered a salutogenic factor; in other words, living near oceans, rivers, streams, lakes, and other blue spaces appears to holistically promote health and wellbeing. Research on blue spaces also indicated that many people may – consciously or unconsciously – seek out environments containing water to regulate or modulate emotional experience. Numerous studies identified that natural bodies of water can foster a sense of calm, connection, coherence, clarity, psychological restoration, existential meaning-making, or perspective shift. Participants across multiple studies, both with and without serious mental health challenges, indicated that streams, rivers, and oceans may have particularly regulating effects due to their predictable movements, sounds, and rhythmicity. Based on evidence presented in this section, it appears that spending time in and around blue spaces can have a profound effect on mental health and serve as a form of *affective sanctuary*. These spaces may provide an effective setting for emotional regulation by promoting psychological restoration, providing a form of more-than-human relationship, and enhancing sense of connection to oneself and the natural world.

Chapter 2 also reviewed evidence suggesting that the sounds, sights, and tactile sensations of water may be able to mitigate aspects of the physiological stress response,

effectively supporting regulation by widening the Window of Tolerance. It appears that listening to sounds of water (e.g., running stream) or being immersed in water can make emotionally and physically difficult events – such as medical procedures or childbirth – less painful and more manageable. Water immersion and floatation interventions were also found to have significant positive effects on mental health and emotional wellbeing. Interestingly, both warm and cold-water immersion appear to have positive impacts on participant mental health by reducing symptoms of dysregulation associated with clinical presentations of anxiety, mood, trauma and stressor-related disorders.

Physiologically, these immersion techniques appear to activate the parasympathetic nervous system by stimulating baroreceptors, increasing vagally mediated heart rate variability (vmHRV), and decreasing heart rate (Baus et al., 2025). These findings align with a neurovisceral model of integration, which suggests – as discussed in the beginning of Chapter 2 – that cognitive, emotional, and physiological systems intertwine to support adaptive self-regulation (Thayer et al., 2009). Relationally, water immersion also appeared to have significant effects on participants' sense of connection to themselves, others, and the water itself. These effects appeared to be more strongly related to warm water immersion interventions, however, some cold swimming practices also appeared to increase participants sense of connection to community as well as the natural world. Although research in this area is in its infancy and further investigation is required, it appears to be a rapidly growing and promising area of interest.

Even when the physical presence or sensory inputs of water are absent, it's mere symbolism and fluid characteristics may offer a source of meaning-making and regulation amid emotional turmoil or challenge. Chapter 2 identified a variety of ways in which the qualities and

nature of water are used symbolically to describe aspects of the human experience. Specific research on the therapeutic effect of water-based metaphors (and metaphors in general) is lacking in the psychological literature. Nonetheless, metaphors may offer low-risk ways in which counsellors and clients alike might relate to water in its symbolic form to convey emotional experiences or support coherence and cognitive flexibility.

Current Applications

Today, a handful of well-established and experimental mental health interventions incorporate water in some form to support emotional wellbeing and regulation. These examples range from the use of water-based visualizations or metaphors to support mindfulness practices, to more experiential approaches involving direct interaction with the physical sensations of water. This section directly connects insights from Chapter 2 to applications within the field of counselling psychology and identifies how therapeutic use of water is currently used in both conventional and experimental approaches.

Depending on the specific therapeutic approach and client presentation, metaphors can help to facilitate a variety of counselling goals, ranging from stabilization and psychoeducation, to meaning making and processing of traumatic experiences (Killick et al., 2016). For example, psychoanalytic approaches often use symbolism to illustrate aspects of the unconscious. In his writings about water, Carl Jung described water as the “commonest symbol for the unconscious” (2014, para. 40). He goes on to state that:

> It is the world of water, where all life floats in suspension; where the realm of the sympathetic system, the soul of everything living, begins; where I am indivisibly this and that; where I experience the other in myself and the other-than-myself experiences me. (Jung, 2014, para 45)

This profound symbolism of water draws on both its dialectical and relational qualities, and hints at its connection to the nervous system. Today, however, therapeutic metaphors of water have expanded well-beyond psychoanalytic emphasis on the unconscious. Cognitive Behavioral Therapy (CBT) uses a variety of metaphors, including water-based metaphors, in its emphasis on connections between thoughts, feelings, and behaviors (Stott et al., 2010). More recent "third wave" iterations of CBT, such as Acceptance and Commitment Therapy (ACT), have integrated water metaphors into mindfulness practices and visualizations to promote cognitive defusion (e.g., *Leaves on a Stream* exercise; Hartnett & Carr, 2013). Somatic Experiencing integrates water in its central *Stream of Life* metaphor, where moving water contained by riverbanks represents the emotional and energetic flow of life, and pendulation between a trauma vortex and a healing vortex symbolizes a process of transformation (Levine, 1997). The *Kawa* model for culturally-responsive therapy also utilizes the metaphor of a flowing river to assist in capturing client's larger contexts – rather than purely individualistic factors – in their treatment and healing journeys (Iwama et al., 2009). From a Narrative Therapy approach, Stoycheva (2022) describes how practitioners and clients can co-construct meaning and re-story traumatic experiences the use of water metaphor and symbolism (e.g., client's describing that they are 'no longer under water').

Counsellors using creative interventions such as sand, art, and play therapy techniques also describe water metaphors in their approaches, such as McCarthy's (2018) focus on imagery for symptoms (e.g., "Becoming the Storm") in working with children, or Eom's (2014) description of water as a symbol of potential in sandplay approaches. In an article titled *Between Water and Words,* Isserow (2013) describes how reflective self-awareness and symbolism – including water symbolism – play an important role in the art therapy process. In

psychotherapeutic work with women with disabilities, Iantaffi (2012) describes travelling along "rivers of experience" (p. 305) in session and using imagery and metaphors to connect with clients in a way that is both accessible and meaningful. Water is clearly no stranger to the counselling profession, and these examples suggest that water symbolism and metaphor are clinically relevant elements of a variety of counselling approaches.

The integration of water with clinical counselling practice also includes relating to water through the physical senses, although these applications appear to be limited. The most well-established modality which integrates sensation of water for emotional regulation is Dialectical Behavior Therapy (DBT; Linehan, 2015). Within its *distress tolerance* component, the DBT skill referred to as *TIPP* encourages the use of cold water in liquid or ice forms to decrease the intensity of overwhelming emotions. These strategies are intended to literally cool the client down and use the sensation of cold water to support emotional regulation and reduce the likelihood of destructive or self-harming behaviors, ultimately bringing an individual back into their Window of Tolerance. They include holding an ice cube, splashing cold water on one's face, applying an ice pack to the eyes and cheeks, or taking a cold shower. In the latter strategies, DBT suggests that cold water on one's face regulates emotional intensity by engaging what is referred to as the *mammalian diving reflex*, which has been shown to primarily activate the parasympathetic nervous system and cause bradycardia, or a reduced heart rate (Panneton & Gan, 2020). Use of this DBT skill is also supported by previously referenced findings on the calming effects of cold facial immersion for panic symptoms (Kyriakoulis & Caballero, 2024).

Beyond DBT, direct interactions with water appear to be relatively experimental in the field of counselling psychology. However, research cited in Chapter 2 on water immersion interventions indicates a rapidly growing interest in the efficacy of hydrotherapeutic approaches

for addressing symptoms of depression, anxiety, and PTSD. In addition, aquatic therapies are currently being explored in creative applications to support children and adults with challenges ranging from sensory processing disorders to attachment difficulties. For example, in a recent publication, titled, *Water as an Affective Medium*, Thij and colleagues (2024) discuss their findings from an attachment-focused hydrotherapeutic intervention utilizing warm water immersion. The authors suggest that:

> Water facilitates bodily awareness and thus enhances awareness of embodied affectivity. As a result, touch can be used more subtly and sparingly. This may be especially beneficial for clients with control issues, trauma, and attachment problems, who have difficulty experiencing safety in closeness and affective touch. (Thij et al., 2024, p. 147).

Although the power of their study was limited due to significant sampling bias and a small sample size, this experimental intervention exemplifies a unique approach to treating dysregulation and attachment trauma. It uses water's sensory qualities as a therapeutic medium in conjunction with a strong therapeutic alliance to support emotional regulation and affective experience. It also aligns with a relational ontology of water in its suggestion that water can provide a form of affective closeness and safety, which may be of particular benefit to individuals who have experienced relational or attachment-based harm.

The sensory aspects of water have also been explored through other experimental therapeutic interventions with children on the autism spectrum and children who have experienced trauma, though the relational and affective qualities of water appear to be less prominent in these approaches. For example, Water Play Therapy (Livneh, 2015) has been described as a novel approach to address sensory process disorders, childhood trauma, anxiety, and other presentations involving emotional dysregulation as a core treatment target. Instead of

using a sand tray, this modality uses a water tray as a medium for children to engage in sensory play and process traumatic memories. In a similar vein, Isserow (2023) has recently explored water as a sensory therapeutic medium in arts-based psychotherapy with children and adolescents.

Other practitioners have suggested that aquatic activities have therapeutic benefit by supporting social, emotional, and behavioral wellbeing in children with neurodevelopmental disorders. These authors have explored hydrotherapy as: a form of play therapy (Phytanza & Burhaein, 2019); a treatment approach targeting specific symptoms of dysregulation such as aggression (Arjmandnia et al., 2018); an intervention to reduce stereotype behaviors associated with ASD (Javadiasayesh et al., 2021); and as a combined treatment approach with Snoezelen multi-sensory therapy (Lavie et al., 2005). Systematic reviews of research in this area conducted by Mortimer et al. (2014) and Shariat et al. (2024) indicate that hydrotherapy interventions may improve mental health outcomes, as well as social and gross motor skills for children with neurodevelopmental disorders. These authors also comment on the need for further research in this area utilizing larger sample sizes, randomized control trials and standardized outcome measures.

A small number of recent studies have focused on blue space interventions, which draw on the relational, emotional, and physiological benefits of blue spaces in conjunction with more conventional counselling techniques. These approaches build on the tenets of established nature-based counselling interventions (Cooley et al., 2020; Jordan, 2014) while focusing specifically on natural blue spaces (e.g., ocean, shoreline) as the treatment setting. Hjorth and colleagues' (2023) intervention offers one such example, whereby participants engaged in a form of group therapy integrated with wild swimming activities; the intervention was found to significantly

decrease participants' depression symptoms. In other examples, therapeutic surf programs have been used to engage participants in embodiment activities and promote social-emotional wellbeing, reduce isolation, and foster increased social and environmental connectedness. This surf therapy approach has been utilized with youth on the autism spectrum (Britton et al., 2020) and asylum seekers (Britton et al., 2022) and has integrated counselling techniques such as body mapping to support sensory awareness and emotional regulation amongst participants. Britton and colleagues' creative therapeutic approaches integrate the somatic, emotional, and experiential aspects of blue spaces, with outcomes including increased happiness, relaxation, and confidence (Britton et al., 2020). These programmes have also been used cross-culturally with women in Sri Lanka (Burtscher & Britton, 2022) and Iran (Britton, 2018), and have been found to support healing, inclusion, empowerment, and social-emotional wellbeing for participants. These unique projects are often co-created with local participants, and their findings highlight the complex, embodied, and relational experience of engaging in therapeutic activities in the ocean. They support not only individual healing and emotional wellbeing but also appear to foster community, safety, and relationship with the ocean for participants who may experience significant marginalization related to their ability, class, race, and gender.

These diverse applications explore the potential of water as a central therapeutic medium, or as an adjunct to conventional counselling approaches. Despite their varied theoretical foundations, they share a common element in the integration of water through imagery, metaphor, and the felt senses to support emotional regulation and reduce emotional suffering, with promising outcomes reported. Chapter 1 defined emotional regulation as "modulation of emotional arousal" involving "awareness, understanding, and acceptance of emotions, and the ability to act in desired ways regardless of emotional state" (Gratz & Roemer, 2004, p. 41).

Based on this definition, many of the applications discussed thus far – such as DBT's *TIPP* skills, ACT's mindfulness exercises, and sensory integration interventions – appear to directly and explicitly support emotional regulation. Further, these applications suggests that therapeutic use of water may be relevant for counsellors across diverse clinical orientations. Future research on these hydrotherapeutic interventions could contribute additional insights by investigating water's specific therapeutic mechanisms, potential replicability of findings with larger and more diverse samples, and the risks and benefits of existing practical applications.

Emergent Themes

In culmination, the existing literature highlights three central themes that appeared repeatedly throughout this capstone project. In response to the original research question, these themes (listed below) indicate that water has the potential to support emotional regulation:

a) Somatically – through sensory input and integration
b) Cognitively – through metaphor, symbolism, and meaning-making
c) Relationally – through a more-than-human relationship, sense of connection to self and others

Of course, these themes only suggest potential areas of further exploration and curiosity, as opposed to concrete answers about water's healing effects. Further, according to the tenets of the neurovisceral model of integration and interpersonal neurobiology, therapeutic mechanisms involved in each of these thematic areas are likely to overlap with one another based on the integrative nature of the somatic, cognitive, and relational systems in the creation and modulation of emotional experience. Finally, these themes are not new. Indigenous peoples across so-called Canada have long understood the profound benefits of relationship with water. If a relational ontology of water became mainstream, might it shift our collective understandings of

water and the vitality of our relationship with it? Would we stop to consider the ways we might interact with water, for our own wellbeing and the wellbeing of the ecosystems? In the midst of emotional, physiological, and societal dysregulation, might we remember that we belong to these ecosystems, and to each other?

Limitations

The ideas and themes presented in this capstone project are subject to numerous limitations. By approaching the topic from an exploratory, relational orientation, a wide net was cast to allow for detection of potential interrelated themes surrounding the intersection of water and emotion. This allowed for an integrative and dynamic analysis of a variety of salient systemic and ecological factors. However, breadth often compromises depth and clarity; an expansive exploration comes with a loss of specificity and the inability to delve into granular aspects of the topic at hand. Future research endeavours in this area may consider narrowing the exploratory lens on one dimension of water and emotion (e.g., somatic, cognitive, or relational) to reveal a more detailed picture of the specific therapeutic and change mechanisms by which water supports emotional wellbeing.

The expansive nature of the topic at hand also poses a challenge for a comprehensive or clearly delineated thematic analysis. For example, participants in multiple studies cited in Chapter 2 described visiting the ocean shore or river because it allowed them to experience and process difficult emotions, to feel connected to something larger than themselves, or to experience psychological restoration. Other research described floatation experiences where participants experienced a physically and emotionally supportive sensory experience, or an experience akin to being hugged or touched. These emotionally meaningful experiences with water likely involve somatic, cognitive, and relational factors, as well as spiritual or transcendent

qualities. Current research is lacking on the specific therapeutic mechanisms of these experiences.

It is also possible that a Western scientific method, with its reliance on the written word and its requirements for discrete variables, objectivity, and qualitative measurement falls short in its ability to capture the personal and profound aspects of human relationships with water, and their emotional correlates. Future exploratory research in this area might benefit from considering participatory action research methods, or *Two-Eyed Seeing* approaches which seek to bridge Western and Indigenous epistemologies. The notion of *Two-Eyed Seeing* in academia was introduced by Elder Albert Marshall, a M'iqmaq Elder, to emphasize that Indigenous knowledge is equally valid as Western science (Mainguy & Mehl-Madrona, 2021). It has been proposed as a philosophy through which Indigenous and non-Indigenous people in mental health spaces might communicate and build shared understandings. Though critics of *Two-Eyed Seeing* approaches caution against performativity and co-option (Broadhead & Howard, 2021), when used appropriately, this framework may offer a more expansive, decolonial means of understanding the multidimensional aspects of our relationships with water and the ways in which these relationships can heal.

Variability in cultural and geographic relationships to water represent another limitation of the present research project. A number of the experiments referenced in the final section of Chapter 2 were conducted in geographic locations close to natural bodies of water, with small, homogenous samples. Without further investigation, it is unclear whether the findings of such research would be replicable with individuals and communities who have limited access to water due to geographic location or water insecurity, or with more diverse populations. It is possible that individuals and communities living further from natural bodies of water may not relate to

water (spiritually, emotionally, physically, cognitively) in the same way that coastal communities do. Even within coastal communities, people likely relate to water in different ways, and it cannot be assumed that the therapeutic qualities of water identified throughout this capstone could be generalized to entire communities or populations.

Despite many promising findings discussed throughout this capstone, it is important to acknowledge the practical and systemic limitations of hydrotherapeutic approaches for addressing emotional dysregulation and other mental health issues. Hydrotherapy remains a cornerstone of white middle and upper-class relaxation and recreational culture, much akin to Gianfaldone and colleagues' (2017) notion of *elitist thermotherapy*. As the mental health field continues to tout the benefits of self-care, bubble baths and cold plunges have become neo-liberal solutions for everything from an imbalanced gut microbiome to burnout. Such approaches to self-care have received significant pushback for failing to recognize and address the dysregulating mental health impacts of capitalism, colonialism, racism, sexism, and a variety of other systemic and institutional factors that perpetuate harm and push sole responsibility for wellbeing onto the individual (Harpster, 2023; Lakshmin, 2023; Schulz et al., 2023). These authors' critiques point out a lack of community care, equitable access, relational approaches, and connection to the natural world observed in pop culture narratives about hydrotherapy.

Although Hippocrates' claim that "water can cure all" is undoubtedly hopeful, it is unsubstantiated. Immersing oneself in water will not put an end to racial injustice or gender-based violence. Nor will listening to sounds of babbling brooks lift a family out of poverty or pull a parent from the clutches of a vicious prison industrial complex. Visiting the seaside will not absolve a young autistic person from the impacts of ableism. These pursuits towards justice and wellbeing require much more: collective stamina, strong communities of care, equitable

access to mental health supports, mutual aid initiatives, consciousness-raising efforts, and the ability to hold one another and our social institutions accountable when harm occurs. They require deconstruction of the personal and collective identities that we have formed around the gnarly grips of colonialism and capitalism, and the spiritual capacity to play and imagine liberated futures. The remainder of Chapter 3 explores ethical and social justice considerations related to water and wellbeing, and introduces the final capstone product: contents for a zine resource synthesizing salient research themes and ideas about water and emotional (dys)regulation.

Ethical and Social Justice Considerations

This section identifies ethical issues related to the integration of counselling and water within and beyond the conventional clinical setting and addresses two salient social justice considerations: affective injustice and water insecurity.

Ethical and Safety Considerations

This capstone has explored a variety of ways in which water might act as a therapeutic medium to support emotional regulation. The majority of these practices do not require a counselling professional and therefore may be relatively accessible (financially and otherwise) to anyone interested in fostering a therapeutic relationship with water. However, these practices vary in level of risk and physical accessibility. The lowest-risk activities for engaging with water – as identified throughout this capstone – include listening to sounds of water, using water-based metaphors and imagery to support mindfulness, and viewing water from a distance. Other low-risk modes of engaging with water might include using water trays, watering indoor plants, or engaging in mindful handwashing. Participants in research cited in Chapter 2 also described splashing cold water on the face, showering, or using an ice pack as accessible and safe options

for regulating emotion with water, especially when immersion was not possible. More direct experience with water (e.g., conventional hydrotherapy, swimming, immersion, floatation), though therapeutically promising for emotional wellbeing, involves an increased level of risk.

When these activities or strategies are utilized *without* the support of a counselling professional, associated risks are generally taken by the individual alone. However, counsellors seeking to integrate water-based practices into psychotherapy must be highly cognizant of the associated risks and liabilities. Counsellors have a professional and ethical obligation to obtain informed consent from clients by providing clear information about the counselling process, risks, and potential benefits of any proposed therapeutic intervention. They must ensure that clients understand the proposed therapeutic intervention and are capable of providing consent (based on age, cognitive abilities, etc.). For low-risk therapeutic activities involving water (e.g., use of metaphors, introducing DBT *TIPP* skills, offering mindfulness exercises using water-based imagery, providing sensory input and exploration through water tray/play, sounds of water, etc.), basic best practices around ongoing and informed consent may be sufficient. These therapeutic activities fall within the scope of conventional counselling practice and generally involve bringing water in some form into the counselling space. However, ethical considerations become increasingly complex when one considers bringing counselling to the water. Higher risk integrations would likely require additional informed consent processes and practices, as well as prior consultation with a physician, for the safety of both counsellor and client.

Therapists interested in conducting therapeutic interventions in natural blue spaces – such as walk-and-talk therapy along a shoreline or seawall – may be able to draw insights from existing literature on the ethical considerations for nature-based counselling (e.g., Hooley, 2016; King et al., 2023) These publications review potential consent and confidentiality challenges,

weather and terrain considerations, the importance of training, ongoing informed consent processes, and other issues pertinent for the safety of both client and counsellor. Most importantly, according to Hooley (2016), counsellors must closely attend to their own level of competence and training in nature-based experiential interventions, and access quality supervision or consultation to support their use of novel nature-based therapies.

When using any water-based intervention, counsellors should also be prepared to screen for history of negative water-related experiences or heightened responses to water which may reduce the efficacy and increase the risk of hydrotherapeutic applications for specific clients. These may include near-drowning experiences, water phobias, prior suicide or self-harm attempts involving water, shipwrecks or other traumatic experiences travelling by water, experiences of violence involving water (e.g., waterboarding, forced showering) or obsessive-compulsive behaviors involving to water (e.g., excessive or compulsive handwashing). The counsellor must also be mindful of individual and cultural differences in sensory processing.

Therapeutic water immersion practices are inherently high-risk due to the possibility of drowning and other serious injuries. The rise in popularity of “cold plunging” has brought with it pseudoscientific misinformation and a lack of safety consideration. Wim Hof, also known as the “Ice Man”, has gained prolific status for developing a combination of hypoxic breathing, cold water immersion, and willpower he has termed *The Wim Hof Method* (Hof, 2020). As an extreme athlete, Wim Hof has touted the benefits of this method far and wide, and his brand platform includes a mobile app and clothing line. It does not, however, place emphasize the risks associated with cold water immersion practices or outline comprehensive safety precautions. Examples of important safety precautions or risk mitigation strategies for cold water immersion or wild swimming include: use of appropriate equipment (e.g., goggles, wetsuit, footwear);

training and education on swimming and water safety, including rescue skills and recognizing signs of cold water shock or progressive hypothermia; preparation and contingency planning; gradual immersion or partial immersion; careful site selection; bodily awareness and familiarity with personal physical limits; engaging in cold water immersion with supervision; choosing freshwater locations over due to lack of current and waves; and reliable access to warming before and after cold exposure (McDougall et al., 2022).

While clients may choose to engage in water immersion practices of their own volition, counsellors must take care not to endorse interventions or activities where the potential for risk or harm to the client outweigh the therapeutic benefit. Counsellors interested in therapeutic use of water immersion – especially cold-water applications – must be acutely aware of contraindications (e.g., heart conditions, hypertension), and potential risks of (e.g., hypothermia, stroke). Depending on the therapeutic context, training on comprehensive first aid, open water safety/swimming, and lifeguarding would be necessary for any counsellor seeking to integrate water into experiential psychotherapy interventions or programs. With increased research evidence and the development of relevant ethical guidelines for such practices, psychotherapeutic interventions utilizing water immersion may become more viable. Still, counsellors should refrain from endorsing any therapeutic interventions which lack thorough research evidence on safety and efficacy, especially when they contain a high level of risk to client wellbeing. Research evidence on the safety and efficacy of voluntary cold-water immersion for mental health or emotional regulation is still in its early days.

(Dys)regulation and Affective Injustice

In a capstone project focused on emotional regulation, it is important to recognize the ways in which mainstream psychology and related disciplines may be contributing to *affective*

injustice. This concept, mentioned in Chapters 1 and 2, originated from the works of Shiloh Whitney (2018) and Amia Srinivasan (2018) and has been defined as "injustice faced by individuals specifically in their capacity as affective beings." (Archer & Mills, 2019, p. 75). Also referred to as *emotional imperialism*, affective injustice involves "a powerful group imposing aspects of its culture's emotional norms and standards on another less powerful group whilst at the same time marking out the other culture's emotional norms and standards as deviant and inferior" (Archer & Matheson, 2022, p. 771). In Western colonial psychology, affective injustice may simply be the *water we swim in*, so to speak.

This critical lens offers a reminder that emotional experience and expression is constantly being influenced by and interpreted through cultural context. Indeed, there is great cultural variability in how emotion is understood and regulated, supressed or expressed (Ramzan & Amjad, 2017). The concept of affective injustice also recognizes that emotional expression may often be deemed either regulated or dysregulated by mental health professionals through the lenses of cultural bias and systemic oppressions. For example, gendered stereotypes of emotional expression often label women as *hysterical* or *crazy*, limit the emotional expression of masculinity to anger, and suggest that emotional responses to sexism are indicative of personality disturbances or irrational sensitivities. An intersectional frame adds vital layers to this concept, highlighting how racism and sexism intersect to create biased attributions of emotion, and contribute to harmful rhetoric about the emotional expression of marginalized individuals (e.g., "angry Black woman" stereotype; Motro et al., 2022). As discussed in Chapter 2, madness and race can be seen as co-constructed; valid expressions of rage and grief in response to injustice are often pathologized or dismissed through encouragement of emotional suppression. These tactics perpetuate the emotional hegemony of white supremacy culture.

While the Western medical model's understanding of psychopathology seeks to locate and treat chronic dysregulation within the individual, this approach is narrow, reductionistic, and pathologizing. Mullan (2023) points out that the traumas of abuse, poverty, capitalism, neglect, racism, colonialism, ableism, and other forms of oppression are often experienced as profoundly disconnecting and dysregulating. Indeed, racialized youth subjected to race-related stress and trauma experience greater emotional dysregulation than their white counterparts (Roach et al., 2023). Further, a growing body of research in the field of epigenetics reaches beyond the nature-nurture delineation, and highlights that our behavior and experiences have the potential to alter our gene expression, with far-reaching impacts for future generations (Daskalakis et al., 2021; Ritzema, 2024; Tammen et al., 2013). This would suggest that our nervous systems, our Windows of Tolerance, and our experiences of emotional (dys)regulation are shaped by both our biology and our experiences, including current and ancestral experiences of privilege and oppression.

Millions of water molecules moving together in the form of a wave remind us: we are not meant to go at it alone. Building meaningful relationships and community requires *relational resilience*: the ability to navigate conflict, rupture, and repair. Activism and culture change call for ongoing awareness of – and resistance against – understandably overwhelming forces of injustice and oppression. Yet, chronic dysregulation (i.e., consistently "narrow" window of tolerance, "stuckness" in states of activation or dissociation) can make it difficult for us to be in relationship with others and socially engage. The physical and emotional toll of chronic dysregulation may challenge our abilities to build and maintain connections and form strong, reciprocal community ties. This is not to say that potential contributors to this dysregulation (e.g., racism, trauma, abuse) should be dismissed or ignored. Rather, in order to be able to be in

community and collectively resist systemic oppression, we must be with our emotional experience, in all its regulated and dysregulated forms.

In this vein, Garcia et al. (2015) suggest that emotion and emotional regulation is central to social justice work, across divides of privilege and marginalization. They argue that "emotions play a key role in social justice work by not only fueling capacity for resistance but also hindering ability to resist injustice effectively or even prompting unwitting contribution to oppression" (Garcia et al., 2015, p. 1). Indeed, the processes involved in acknowledging and deconstructing whiteness, patriarchy, racism, colonialism, sexism, and other overlapping oppressions can be dysregulating! Defensiveness, fear, and disconnection can drive divides, and lead to weaponization of emotion (e.g., "white women's tears"; Srivastava, 2005). And yet, anger, rage, and grief can sustain resistance and spur action. Experiences of emotional and physiological (dys)regulation provide vital information and awareness about the ways in which our bodies and minds relate to power, privilege, and oppression. They are important communicators of the reality of injustice and out positionality within it; they remind us of our individual and collective need for liberation. Emotional regulation – as a means of traversing the peaks and valleys of emotional experience while maintaining connection to our values and goals – has the potential to catalyze change from the level of our cells, outwards into our families, communities, and social systems.

By overemphasizing seemingly individualistic aspects of mental health or suggesting that clients must simply learn to regulate their emotions in order to *cope* with oppression and systemic violence, counsellors contribute to the perpetuation of affective injustice. Anti-oppressive practice asserts that it is not the role of the counsellor to determine which emotions are effective or ineffective or to poke holes in the validity of emotional experience. A

consideration of affective injustice demands that emotional regulation not be weaponized as tool to dismiss, pathologize, or supress valid and necessary responses to oppression and injustice. Without a decolonial lens, the rhetoric of emotional regulation can harm marginalized peoples by encouraging emotional coping strategies of denial or disengagement in responses to injustice (Phillips et al., 2015). Instead, Phillips et al. (2015) suggests that decolonial emotional work in therapeutic settings must move towards fostering critical consciousness of racial oppression, de-ideologization, and resourcing conducive to community-building and collective action.

By challenging affective injustice, counsellors and clients can explore self-regulation, co-regulation, and eco-regulation as mechanisms of change and transformation that enable relational resilience and essential practices for developing and maintaining strong community connections. Counsellors can also utilize the *Multicultural and Social Justice Counseling Competencies* (Ratts et al., 2016) as a guide in their journeys alongside clients. Within this praxis, Ratts and colleagues (2016) emphasize the significance of four counselling competencies (attitudes and beliefs, knowledge, skills and action) across four domains of practice: counselor self-awareness, client worldview, the counselling relationship, and counseling and advocacy interventions. Their vital work centers concepts of power, privilege, and oppression, and recognizes that movement towards decolonizing counselling practice requires a fulsome and holistic understanding of people as dynamic, social, emotional, political, and physical beings (Bryant-Davis, 2023).

Water Inequity, Access and Sovereignty

Research in the field of ecopsychology has consistently identified that climate change and environmental degradation of water systems are linked to intensification of illness in humans, with significant mental health consequences (Heidari & Lawrence, 2023; Thoma et al., 2021; Wutitch et al., 2020). Industrialized farming and manufacturing techniques, oil and gas

extraction, and mining activities are the primary contributors to ongoing global degradation of water systems due to deforestation, damming or "choking" of natural waterways, chemical runoff, and industrial waste polluting rivers and groundwater. As industrialization escalates and carbon capitalism spurs climate crises and extreme weather events, water systems become increasingly dysregulated (e.g., extreme floods and droughts). Further, intersecting systems of oppression create barriers for marginalized communities in accessing and engaging with water and its healing properties. This section briefly discusses environmental and sociopolitical inequities in access to water.

Although we are all fundamentally and existentially reliant on water systems to survive and thrive, water insecurity is not experienced equally. The fossil-fuel based global economy is created and perpetuated by a small global minority, and its devastating effects disproportionately harm racialized communities and people of colour (i.e., the global majority; McGee & Greiner, 2020). In other words, racial injustice is central to capitalism, and those who profit of carbon capitalism and continue to replicate its machinery, are often the last to experience its life-threatening consequences (Perry & Sealey-Huggins, 2023).

The wellbeing of natural water systems is uniquely vital for Indigenous health and land-based healing (Acharibasam et al., 2024; Josewski et al., 2023; Linklater, 2020). Since the beginnings of colonization – including water theft spurred by a doctrine of *aqua nullis* (O'Donnell, 2023) – Indigenous communities from culturally distinct nations across so-called "Canada" have continued to oppose projects of hydraulic imperialism and assert their rights to water sovereignty and governance.

These rights are outlined in United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Article 25 of the UNDRIP asserts:

> Indigenous peoples have the right to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard. (United Nations Declaration on the Rights of Indigenous Peoples, 2007, Article 25)

The UNDRIP was was passed into law by the British Columbia provincial government in 2019 in the form of the Declaration on the Rights of Indigenous Peoples Act (2019), and the federal government announced its full support of the UNDRIP in 2016. Prior to this, the Canadian state only endorsed the UNDRIP as an *aspirational document* (Duhamel, 2022). Despite these legislative changes, many fundamental rights outlined in the UNDRIP are not upheld today. Notably, multiple First Nations across Canada – particularly in Northern Canada – do not have access to drinkable water or have had water sources poisoned by chemicals used for resource extraction (Baijius & Patrick, 2019; Takaoka et al., 2014). Inequitable water access and governance continues to disenfranchise Indigenous communities, causing catastrophic physical, mental, and spiritual health outcomes. Anderson (2010) describes the significance of this loss of connection to water in a First Nations cultural context:

> Water is Mother Earth's blood; her lakes, rivers and inlets are her veins, and all life needs water to sustain it. [Losing water] is like losing a mother or brother or sister, that is the pain we feel when we lose our family member, water. (p. 27)

Indeed, water crises affecting First Nations and other Indigenous communities in North America – i.e., water contamination in Flint, Michigan (Cuthbertson et al., 2016; Reuben et al., 2022), ongoing water advisories across Canada (Sultana et al., 2022) – have been shown to cause serious negative impacts on maternal health and increase the prevalence of depression and PTSD

symptoms in community samples. This effect is so direct in nature, that some authors have identified suicide itself as a water justice issue amongst First Nations communities (Ansloos & Cooper, 2023). These findings emphasize that that the mental health consequences of water insecurity often disproportionately affect communities already systemically marginalized by colonialism, racism and poverty.

Further, blue spaces are not equally accessible. In a study of urban waterways in Utah, Haeffner and colleagues (2017) found that race and socio-economic status were significant factors for blue space accessibility and interaction. Respondents in their study who identified as Hispanic or of lower socio-economic status were significantly less likely to be familiar with local waterways and less likely to report spending time in or experiencing positive effects of blue spaces when compared to white respondents and those who had higher socio-economic status (Haeffner et al., 2017). Other authors have emphasized ways in which racialized communities have been explicitly and implicitly restricted from blue spaces, specifically in the context of beaches or shorelines in coastal Miami, Florida (Phoenix et al., 2021). These authors point to exclusionary politics surrounding coastal blue spaces and inequitable access to water safety and ocean education programs as factors that continue to exclude and endanger Black communities. Olive et al. (2020) add to this discourse, noting that white bodies are often considered the "default" presence in coastal blue spaces in the United States, and that African Americans often report feeling scrutinized and unwelcome in such spaces. Collectively, these authors highlight the "othering" that takes place in blue spaces and encourage their readers to reflect on the convergence of white supremacy culture, racism, and classism that often render blue spaces unwelcoming, inaccessible and unsafe for marginalized communities.

Efforts to address these inequities offer important examples for those interested in blue space accessibility and racial justice in the realm of ecopsychology. Gamory et al. (2023) recently published an article detailing an initiative intended to address impacts of racial discrimination on BIPOC communities by fostering safe, communal relationships with water. Rooted in decolonial theory and restorative justice philosophies, this project emphasized ancient understandings of water as a healing entity and supported aquatic engagement for participants and community members who might otherwise lack such opportunities due to racial discrimination and systemic inequities in water access. Its primary author outlines a *Water as Medicine* model, incorporating intersecting themes of mourning, recovery, rediscovery, dreaming, action, and commitment (Gamory et al., 2023). Their work brings to light the harms of white supremacy and racism in the aquatic industry and urges practitioners and policy makers alike to take action on addressing racial disparities in aquatic culture and water safety.

This section has highlighted the need for an intersectional, decolonial approach to understanding and repairing the nuanced relationships between people and water systems. Access to water is a pressing human rights issue, and despite individual benefits of visits to coastal blue spaces, access still does not appear to address systemic health inequities (Geiger et al., 2023). These issues urge readers to engage in self-education on the topics of ecologically sustainable water laws and policies, and the importance of Indigenous water sovereignty (e.g., O'Donnell, 2023). This section also encourages its readers to (re)consider their roles and responsibilities towards water protection and ecological restoration and to seek out opportunities to support local water protection efforts and initiatives, especially Indigenous-led initiatives.

Creative Synthesis of Research Themes and Insights: Zine Resource

The final product of this capstone offers content for a *zine* (short for magazine), titled *BE LIKE WATER*, which presents a synthesis of insights gathered throughout the project, using the framework of the three emergent research themes (see Appendix A). Zines are small, self-published booklets or magazines, often created by individuals or small groups. They are typically handmade, photocopied, and are easy to distribute in small quantities. They can cover any topic – art, politics, personal stories, subcultures – and are known for their DIY aesthetic and emphasis on self-expression. This format was chosen for the present research project as a dynamic and creative ways to share information, which may be more practically accessible than a lengthy piece of academic writing that is undoubtedly somewhat dry, despite its watery central theme. *BE LIKE WATER* compiles key themes and insights into an accessible and practical resource and is intended as a creative invitation to anyone interested in exploring the possibilities of emotional regulation through water. It is available in both PDF and hard-copy format.

Conclusion

Guided by a relational ontology, this capstone has offered a dynamic exploration at the intersection of water and emotion. It argued for a transdiagnostic consideration of emotional (dys)regulation and reviewed diverse applications of water as a therapeutic medium. It consistently encouraged readers to consider social justice issues in regard to colonial water cures, pathologization of resistance to oppression and affective injustice, as well as inequities in access to blue spaces and clean water systems. Despite various limitations, water's therapeutic value and potential as a relational, sensory, and symbolic source of healing and emotional wellbeing is clear.

Being *with* water, or being *like* water, can offer multidimensional experiences of regulation and clarity, and a reminder of our inherent connection to something sacred and profound. It might prompt cognitive reappraisal or invoke insight about different ways to move through the world in relationship with ourselves and one another. It might provide the pause needed to scan our emotional landscape and remember what Ojibwe author James Vukelich Kaagegaabaw (2023) describes as the *seventh generation principle*: a philosophical and relational responsibility and awareness that any actions taken or decisions made in the present day will affect descendants seven generations into the future. Water might offer what is needed for us to widen our windows of tolerance and challenge the pace and priorities of capitalism and colonialism.

While the clinical language of counselling psychology might ask the counsellor to frame emotional dysregulation as a "treatment target" in of itself, it might more accurately be thought of as a means to an end; a dynamic and ongoing process that bridges the individual and collective experience; or perhaps an entry point to an essential journey within which we each have important roles to play and unique gifts to offer. Perhaps, water can teach us something about this process.

In closing, this capstone leaves its reader with a poignant excerpt from an essay titled *Water, Playfulness, and Overcoming Oppression*, by Leanne Alaman:

> There was lightness, ease, and playfulness to the water's approach. In my life, there was heaviness, fighting, and very few giggles… I fight racism, cancer, and poverty. I fight everything and everyone I don't like. I "fight the good fight." It is hard and vigilant work. I feel the sting of losing the fight each and every. Every day I fail to overcome racism, cancer, and poverty. These boulders are still with me despite all of my "good fight." So

what, do I give up and just let them win? The water ripples over my toes and reminds me that it carved a goddam canyon. Water is not weak because it is accepting. Acceptance and persistence enable water to overcome an immovable obstacle. Erosion is a powerful, but patient force. Water simply knows that it is more powerful when it is more united. A single drop of water falling in a hot spring cave merely moistens the stone below. But when each drop is followed by another and another, over months and years the strength of water surpasses that of earth. United water drills a hole into solid stone. It is wise to heed the wisdom of water; unity with the drops around me, patient but consistent action towards a common goal, embracing both playfulness and power. (Alaman, 2022, para. 11)

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Appendix A

BE LIKE WATER Zine Contents and Sample Pages

The following content will be compiled into a graphic arts format (zine) as an accessible means of sharing capstone themes and insights. A sample mini-zine is included for reference.

Zine Contents	
Introduction	• Introduce central theme and question of capstone project, and intention of zine • Note indicating no therapeutic advice/recommendations – rather, sharing of core themes. • Novel research area, ancient ideas. QR Code link to Elektra (2022) video on Youtube: *Snewíyalh tl'a Stakw - Teachings of the Water*
Reflecting on Relationships with Water	What is water? How would you define it? How do you relate to water? Do you notice your emotional landscape shift when you are around water? How? How do you interact with water in your day-to-day life? Where does this water come from? How does it get to you? Where does it go afterwards? What bodies of water (e.g. oceans, rivers, lakes) are you connected to geographically? Who is responsible for caring for these water sources? What bodies of water are significant to you, or your ancestors?
Relational vs. Colonial Ontology	Differentiation between the relational vs. colonial ontologies of water; definition and examples of *hydraulic imperialism*
Water, Emotional Regulation and the Nervous System	- Parallels between water systems and nervous systems, water as facilitator of our experience (social, emotional, physical, cognitive) - Window of Tolerance (adapting/moving fluidly between states, impacts of trauma on "flow") - Emotional (Dys)regulation (definition and note re: transdiagnostic significance, relevance of emotion for relationship with others, being in community, social justice work) - *Ripple Effects* - Creating change from the individual outwards through relationships and community
Therapeutic Use of Water Throughout History	• Early spiritual origins / connection to natural world • Ancient Greece, asclepion, bathhouses, Hippocrates • "Water Cure" and evidence of hydrotherapy connected to colonial activity (e.g., *Cleansing the Colonizer*) • Water cures in psychiatric facilities / note re: affective injustice

Sensations of Water	**Sensory/Somatic Dimensions of Water and Emotion** - Tributaries/networks of the human sensory system (messages passed back and forth from peripheral to autonomic – streams of communication) - Emotional Regulation and Sensation of Water -- Examples (Note re: which examples have some supporting research evidence) o Listening to sounds of water (e.g., rivers, waves, rain) o Mindful handwashing o Sensory play/Exploration (e.g., swimming, splashing, water table) – "Storm in a Bottle" Activity o Watering/caring for plants o Crying – noticing water as it naturally occurs in connection to emotion o Sights and sounds of water – spending time in or near natural bodies of water and other blue spaces o Cold water facial immersion o Holding an ice cube o Warm water immersion (e.g., balneotherapy, baths, warm water floatation, showers, etc) – cleansing and visualizations o Cold water immersion (e.g., wild swimming, cold plunging) - Safey considerations re: sensory engagement with water
Meaning of Water	**Cognitive/Metaphorical Dimensions of Water and Emotion** • Emotional Regulation and Metaphors of Water -- Examples o Water in visualizations for mindfulness (e.g., "Leaves on a Stream", Wave Breathing, Dropping Anchor, Box Breathing w/ Ocean Sounds) o Dialectical qualities of water (supporting psychological flexibility) o Communicating emotional experience through metaphors of water (examples) o Exploration the self or increasing awareness of unconscious or unacknowledged forces or factors in one's life (e.g., Iceberg) o Resilience & strength in community (drops of water wearing away stone) o Songs/Music about water (list)
Relationship with Water	**Relational Dimensions of Water and Emotion** - Emotional Regulation and Relational Aspects of Water – Examples o Water as co-regulator o Giving to/receiving from water (practices) o Talking, singing to water o Asking water to carry a message o Connecting with others through water – e.g., caring for water systems through environmental activism/advocacy,

	local water protection efforts (being in community) – examples of projects o Visiting natural bodies of water – potential for non-demanding relationship (affective sanctuary), and/or greater connection to self, others, natural environment
Words on Water	Collection of quotes (referenced) about water as cited throughout capstone
Resources	**Local Resources, Groups and Organizations** related to water and wellbeing, or to support: - Local cold plunge, swim, and spirit bathing groups - Pools/rec-centres, accessible pools - North Shore Stream Keepers www.northshorestreamkeepers.ca - Raven Trust www.raventrust.com - Indigenous Watersheds Initiative www.indigenouswatersheds.ca - Urban Native Youth Association www.unya.bc.ca
References	List of references noted throughout Zine

If you liked this zine, please consider making a donation to one of the following organizations:

Raven Trust
www.raventrust.com

Urban Native Youth Association
www.unya.bc.ca

Indigenous Watersheds Initiative
www.indigenouswatersheds.ca

North Shore Stream Keepers
www.northshorestreamkeepers.ca

BE LIKE WATER

Emotional (Dys)regulation and the Therapeutic Potential of Water

Emotional Regulation involves ⟶

(1) Awareness, understanding and acceptance of emotional experiences, **(2)** Flexible use of strategies to modulate intensity and/or duration of emotional responses, **(3)** Ability to take actions congruent with values and inhibit impulsive actions when experiencing difficult emotions, and **(4)** Willingness to experience painful emotion as part of pursuing meaningful activities in life.

Emotional regulation is not an individualistic pursuit!

It is a vital aspect of being in community, and can support us in navigating the dysregulation that comes with building, maintaining and repairing relationships.

Water can support emotional regulation through its sensory, symbolic/metaphorical and relational qualities.

Natural water systems and the human nervous system share many similarities.

Tributaries carry nutrients and neural signals across ecosystems to maintain homeostasis and support life. Our emotions arise from a complex integration of physiology, cognition, relationship, experience, culture and context. Just as the ocean naturally shifts between turbulence and tranquility, a healthy nervous system is not perpetually calm. Nor does being "regulated" mean that we are in a constant state of pleasant emotional experience.

When our nervous system becomes overhwlemed by stress, like a river overflowing its banks, we can find ourselves in *hyperarousal*. Or, like a river freezing over, we can experience *hypoarousal*. Regulation requires us to flow adaptively between states of rest and activation, chaos and rigidity. We now know that adverse childhood experiences, discrimination, chronic stress, and certain neuro- developmental conditions can disrupt this adaptive "flow". Emotional regulation can help us to move through stuckness in these survival states and ultimately return to our Window of Tolerance where we can thrive and engage socially.

None of these ideas are new!

Have you ever gone to the water during a time of emotional turmoil? Cried in the shower? Splashed water on your face? Sat by the ocean or a lake?

Water is symbolically and inextricably connected to the human experience. We originate from it, we're made of it, and we rely on it to stay alive.

For thousands of years, we have turned to the water for reflection and healing in the midst of turbulence and dysregulation.

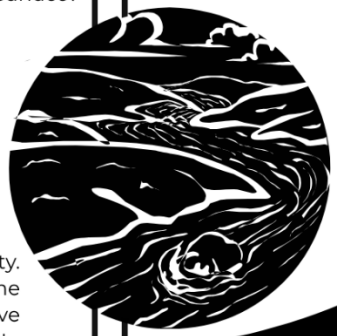
Culturally, linguistically and geographically distinct Indigenous communities have fostered reciprocal relations with water and the land for healing and wellbeing since time immemorial.

Snewiyalh tl'a Stakw Teachings of the Water
Rebecca Duncan

METAPHOR & SYMBOLISM OF WATER

- **How might your emotional experience be expressed through symbolism of water?** Drowing? Floating? Treading water? Frozen? Being swept away?
- **Imagine an iceberg.** What is obvious/visible? What might be under the surface? Fears? Needs? Expectations? Perceptions? Desires?
- **Water can support mindfulness through visualizations.** Consider checking out "Leaves on a Sream", Wave Breathing, or other watery mindfulness exercises. What might the 'ripple effect' of your actions and choices today create?
- **What might water have to teach us in its dialectical way of being?** Water is capable of being gentle and strong, playful and serious, shallow and deep. One drop of water may seem insignificant, but a consistent drip over years will wear away stone. .

There is power in community. Many droplets of water, in the form of a river, carve their way through mountains..



RELATIONSHIP WITH WATER

Where, how, and why do you engage with water? How do you relate to it?

Where does this water originate from? Where does it flow to after you encounter it?

What would it mean to have a reciprocal relationship with water? Consider what water offers you.

What can you offer the water?

Determinations of *regulated* vs. *dysregulated*, *adaptive* vs. *maladaptive*, *healthy* vs. *unhealthy* are often made through a Eurocentric lens.

This can be seen as a form of **affective injustice** which pathologizes or supresses normative emotional responses (and resistance) to oppression.

The WATER CURE

was used in various forms to treat spiritual, physical, or psychological illness from the 1600s until the mid 20th century.

For white, wealthy people in Europe, or colonists, this meant soaking in psychologically and physically rejuvinating baths and natural springs ("elitist thermotherapy"), or visiting the seaside to "take the waters".

For marginalized or oppressed groups, the "water cure" was more akin to torture. In many prisons, asylums, and psychiatric institutions, people deemed deviant or "mad" (hysterical, neurotic) were forcibly doused or submerged in frigid water.

The history of hydrotherapy is fraught with inequity, violence, and unethical practiess.

SENSATIONS OF WATER

- **Auditory & Visual** | The sights and sounds of natural water (streams, lapping waves) can have a regulating effect on the nervous system, mitigating our stress response, lowering the heart rate, and fostering a sense of calm.
- **Cold and Warm Water Immersion** | Both cold and warm water interventions (including floating, wild swimming, and full or partial immersion) may improve overall emotional wellbeing and reduce symptoms of depression, anxiety, and Post-Traumatic Stress Disorder (PTSD).

Cold water on the face, a cold shower or warm bath, mindful handwashing, may be safe, effective, and accessible sensory alternatives to immersion or swimming practices in nature or pools.

Before exploring these techniques (especially cold water immersion practices), a physician should be consulted. Cold water immersion in nature should never be attempted alone.

BLUE SPACES

Areas with natural bodies of water (blue spaces) have been shown to promote overall phsyical and psychological health and wellbeing.