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# The Experience of Meditation and Healing in Practitioners of the Wim Hof Method

Chad David McKinney  
*Walden University*

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# Walden University

College of Psychology and Community Services

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Chad McKinney

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## Review Committee

Dr. Susan Marcus, Committee Chairperson, Psychology Faculty  
Dr. Kimberlee Bonura, Committee Member, Psychology Faculty  
Dr. Medha Talpade, University Reviewer, Psychology Faculty

Chief Academic Officer and Provost  
Sue Subocz, Ph.D.

Walden University  
2022

Abstract

The Experience of Meditation and Healing in Practitioners of the Wim Hof Method

by

Chad McKinney

MA, University of Phoenix, 2010

BS, Illinois State University, 2004

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Psychology with an Emphasis in General Teaching

Walden University

May, 2022

## Abstract

The practice of meditation for the purpose of increasing mental clarity, health, and healing has grown steadily over the past 50 years or more. While meta-analyses and literature reviews of hundreds of studies have shown that individuals who meditate improve neuro-biopsychosocial functions and recover from illness, few studies have examined these benefits within specific systems of practice. This qualitative study explored the experience of meditation and healing in adults who have trained in the Wim Hof Method (WHM). Transpersonal psychology and placebo theory served as the conceptual framework of this research. Narrative analysis was used to guide data collection and analysis. The narrative interviews of 10 participants who experienced the WHM were transcribed and analyzed using both structural and thematic strategies. The results indicated that WHM practitioners experienced neuro-biopsychosocial and emotional well-being through the use of breath, cold-immersion, and/or meditation. All participants reported profound experiences involving symptomatic reduction and/or the healing of maladies, as well as transpersonal/transcendental experiences that transformed their lives. Future research is encouraged to study the experience in more diverse populations (gender, nationality and age), and to explore participants' worldviews prior to, during, and following the practice of the Wim Hof Method. Quantitative research assessing effectiveness and the influence of individual difference factors is recommended. Given the benefits associated with engaging in the WHM, as well as its low cost, ease of access and simplicity, this method could be deployed across a variety of venues to inspire social change.

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## Dedication

It is with great honor and my deepest gratitude that I dedicate my degree to my parents. I have watched, and been continually inspired by all that you do and who you are. There is no way to repay you for all of your love, dedication, forgiveness, support, and guidance. Thank you very much for always inspiring me to live courageously and follow my dreams. I love you and am so thankful to have you as parents. Thank you from the bottom of my heart.

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## Chapter 1: Introduction to the Study

### **Introduction**

The practice of meditation as a subject of scientific inquiry has grown steadily over the past 50 years or more. Meta-analyses and literature reviews of hundreds of studies have shown that individuals who meditate demonstrated increased frontal/prefrontal activity, a greater awareness of inter and intra-personal relating, greater regulation of their cognitive and emotive responses to negative stimuli, and improved coping with stress, thereby improving one's biopsychosocial functions and recovery from illness (Grossman et al., 2004; Magalhaes et al., 2018; Sedlmeir et al., 2012). Meditation retreats have demonstrated substantive effects in reducing affective disorders like depression, anxiety, stress in participants, as well as improving the quality of life (Khoury et al., 2013).

Researchers have also studied the effect of meditation on various physical and physiological systems, including the use of meditation as a technique for reducing pain and enhancing attention and emotional regulation (Hilton et al., 2017; Zaccaro et al., 2018). Recent studies have examined how meditation in combination with other practices can reduce or cure laboratory-induced illness (Kox et al., 2014). However, more research is called to further study how trained meditators experience the healing effects of practice (Khoury et al., 2016; Kox et al., 2014; Sedlmeir et al., 2012).

Individuals trained in the Wim Hof Method (WHM) have reported an ability to gain access to their autonomic nervous system (ANS) and fight off flu-like symptoms (Kox et al., 2014). The WHM is composed of meditation, breathing exercises, and cold

immersion (CI). The study found that practitioners of the WHM were able fight off flu-like symptoms associated with the injection of a bacterial endotoxin, however, failed to identify which components of the WHM (meditation, breathing techniques, or CI) allowed for the participants to voluntarily activate their ANS and increase adrenalin production (Kox et al., 2014).

The purpose of this research was to explore the experience of meditation and healing in adults who have trained in the WHM. It has been suggested that individuals trained in the WHM have demonstrated an ability to heal themselves of several ailments, including, but not limited to the onset of fever and flu-like symptoms (Hof, 2015; Kox et al., 2014; Van Middendorp et al., 2016). This was explored by interviewing individuals who have reported experiencing a healing through the practice of the WHM.

### **Background**

A meta-analysis of 38 studies of randomized controlled trials indicated that meditation produces a statistically significant effect for treating symptoms of depression and improving an individual's physical and mental health quality of life (Hilton et al., 2017). A meta-analysis of 21 studies (N=2912) comparing meditation to a spiritual and healing practice, found the use of meditation to have a moderate effect on the reduction of maladaptive psychological symptoms, such as: depression, anxiety, and stress (Khoury et al., 2016).

Through a dedicated and prolonged meditation practice, individuals have developed an ability to automatically regulate their behavior (Greenberg et al., 2012). This has resulted in a reduction of stress and an increased sense of well-being in

practitioners (Shonin et al., 2014). However, not all meditation practices are considered equally effecting. This varies significantly based upon technique, and the intention set forth by the practitioner. Three well-researched meditation techniques include, focused attention meditation (FAM), open monitoring meditation (OMM), and loving-kindness meditation (LKM) (Lippelt et al., 2014). Each of these techniques may include subbranches. For example, Vipassana is a form of FAM, while mindfulness meditation is considered to be OMM techniques (Cahn & Polich, 2009). Whereas, a compassion focused meditation has been designated as an LKM (Lippelt et al., 2014).

Transcendental meditation is an emptiness practice (Sedlmeir et al., 2012). A study examining differences between mindfulness, and ‘emptiness’ meditation, found that individuals practicing ‘emptiness’ meditation reported greater improvements in the following outcomes: nonattachment, mystical experiences, and psycho-spiritual well-being (Van Gordon et al., 2018). Although ‘emptiness’ meditation is considered an advanced practice, it is often through mindfulness techniques that this state of being is attained. Further, a study on mindfulness guided by a smart phone app over an 8-week period indicated participants experienced improvements in global well-being depressive symptoms, and job strain two months after the completion of the study (Bostock et al., 2018).

Although meditation has been used as a treatment for addiction, one study reported that practitioners had a greater propensity to experiment with, or use, illicit drugs or marijuana (Cramer et al., 2017). However, this may be more related to the personality type of those drawn to the practice, rather than the actual intervention. While

the primary intent of meditation is not as an intervention for mental or physical maladies, meditation has been shown to result in an increase in healthy behavior, including, but not limited to improved body image and connectivity, as well as self-care and self-compassion (Cramer et al., 2017). The following qualities can also be enhanced through meditative techniques: focused attention, well-being, regulation of one's emotions, empathy, compassion, and physical health (Roeser & Zelarzo, 2012). The research further suggested that the more an individual reported meditating, the more profound the changes (Bostock et al., 2018).

Research has explored what motivates people to meditate, and reports include reduction of negative experiences, improvement of well-being, introduction by an external source, and religious/spiritual reasons (Pepping et al., 2016). However, these motivations change over time. The same study found that as meditators increase in experience, their reasons for continuing to practice, shift from alleviation of negative symptoms, to self-exploration and self-liberation (Pepping et al., 2016).

Research has indicated that neurological and physiological effects resulted due to changes in pace of breathing, this included: altered heart rate, increased parasympathetic and decreased sympathetic activity, hemodynamic variations, stress reduction, enhanced lung functions, lowered metabolic rates, enhance mood for individuals withdrawing from cigarette smoking, improved quality of sleep, and reduced anxiety (Saoji et al., 2019). A meta-analysis of 15 studies assessing the effects of voluntary modulation of breathing (Pranayama and paced breathing), focusing on slow breathing (<10 breaths per minute) also found enhanced interactions between cerebral, autonomic, and psychological



functions influencing well-being and emotional regulation through the central and parasympathetic systems (Zaccaro et al., 2018).

Key components of many meditation interventions include, present moment awareness, acceptance, and non-judgment (Bühlmayer et al., 2017). Although meditation is associated with the treatment and prevention of analgesic issues, as well as the enhancement of the practitioner's holistic well-being, research is still unsure as to exactly why these outcomes result (Emerson et al., 2017). Therefore, a greater understanding into the experience and intention of the meditator is needed.

### **Problem Statement**

Meditation has been used as a spiritual and healing practice for over 5000 years (Khoury et al., 2016). In the last 30 years, it has moved into the mainstream American medical system as an intervention for a range of psychological and physical conditions (Shonin et al., 2014). In addition, the development of brain and neurophysiological diagnostic and imaging protocols have allowed researchers to detect changes in brain chemistry and physiology/biology that are reliably produced in regular and novice meditation practitioners (Zaccaro et al., 2018).

Research has demonstrated that the use of meditation can result in maintained improvements to novice practitioner's neuro-biopsychosocial well-being (Saoji et al., 2019). Researchers have also reported that the following traits can be enhanced through meditative techniques practiced for a duration of time: focused attention, well-being, regulation of one's emotions, empathy, compassion, and physical health (Roeser & Zelarzo, 2012).

A recent meta-analysis of 21 studies comparing meditation to a spiritual and healing practice found the use of meditation to have a moderate effect on the reduction of maladaptive psychological symptoms, such as, depression, anxiety, and stress; while demonstrating an enhancement in an individual's quality of life (Khoury et al., 2016). These psychological improvements have been attributed to changes in perception, such as a reduction in judgments and expectations, which produce an increase in compassion towards others and oneself (Shonin et al., 2014). Another meta-analysis of 36 studies examining the use of mindfulness meditation on the treatment of chronic pain found moderate, consistent effect sizes in reported identification with the affliction and pain (Hilton et al., 2017).

An area of developing interest in the scientific community is the use of meditation for the purpose of enhancing athletic performance. A meta-analysis of 9 intervention trials across a total of 290 athletes and healthy participants found enhanced physiological, psychological, and performance functioning in individuals who engaged in a mindfulness meditation practice (Bühlmayer et al., 2017).

More recently, scientists have assessed the ability to access and influence the autonomic nervous system (ANS) through meditative practices. In 2012, a group of 24 individuals trained in the Wim Hof method (WHM), a combination of meditation, breathing techniques (pranayama), and cold-water exposure techniques, were injected with the influenza virus in a laboratory setting, and demonstrated an ability to activate the immune system and fight off the fever and flu-like symptoms more effectively than the control group (Kox et al., 2014). The researchers did not identify the specific techniques

associated with the trained group's ability to voluntarily activate the ANS, and called for more research on participants with this training to further study the mind/body relationship from this perspective (Kox et al., 2014).

The WHM combines meditation with other practices that have already demonstrated some success in the treatment of physiological and psychological conditions. For example, a meta-analysis of 15 studies assessing the effects of voluntary modulation of breathing (Pranayama and paced breathing), focusing on slow breathing (<10 breaths per minute) found enhanced interactions between cerebral, autonomic, and psychological functions influencing well-being and emotional regulation through the central and parasympathetic systems (Zaccaro et al., 2018). A narrative literature review of 68 studies examined the physiological and psychological effects of pranayama (yogic breathing) on practitioners (Saoji et al., 2019). Although this study appeared less rigorous in its selection criteria, the research consistently suggested that paced breathing may have a positive impact on the neurocognitive and physiological functions of the individual (Saoji et al., 2019). Further, a study assessing the effects of cold-water immersion on 11 male cyclists found expedited recovery times and higher cardiac parasympathetic activity immediately following high intensity (sprints) training blocks (Stanley et al., 2012).

In sum, there is considerable research on the effect of meditation on various physical and physiological systems, as well as research on the use of meditation as a technique for reducing pain and enhancing attention and emotional regulation (Hilton et al., 2017; Zaccaro et al., 2018). Recent studies have examined how meditation in combination with other practices can reduce or cure laboratory-induced illness (Kox et

al., 2014). A follow up study examined the effects of belief and expectancy on healing in practitioners of the WHM (Van Middendorp et al., 2016). Researchers have called for further study of specific meditation experiences for the purpose of examining how trained meditators experience the focus and intent of their practice and healing effects (Khoury et al., 2016; Kox et al., 2014; Sedlmeir et al., 2012).

### **Purpose**

The purpose of the proposed research was to explore the experience of meditation and healing in adults who have trained in the WHM. Several scientific studies have been conducted examining the effects of meditation on analgesic issues (Hilton et al., 2017) and other psychological issues (Sedlmeir et al., 2012; Shonin et al., 2014), while some research has even begun to explore its use towards the enhancement of cognitive, emotive, and physical abilities. As indicated above, further research is called for on how trained meditators experience the focus and intent of their practice and healing effects (Khoury et al., 2016; Kox et al., 2014; Sedlmeir et al., 2012).

### **Research Questions**

How do participants describe their experience of meditation and healing as participants in the WHM?

### **Conceptual Framework**

Transpersonal theory served as the conceptual framework of this study. Its roots can be traced to Eastern philosophy (Kasprow & Scotton, 1999; Fisher, 1997).

Transpersonal psychology is the exploration of human potential providing a comprehensible link between traditional, shamanic, and indigenous teachings and healing

practices throughout the world with that of Western psychology (Marovic, 2017). The scope of this theory incorporates the spectrum of human experience, including ‘ordinary’ and ‘non-ordinary’ states of consciousness (Marovic, 2017). The foundational approach to a transpersonal orientation is that an individual may realize and experience oneness and an interconnectedness with all things, which is often cited as a goal/result of meditation (Boorstein, 2000; Khoury et al., 2016). Through the transpersonal lens, two notable outcomes occur as a result of a spiritual practice: (1) centering, improved concentration, relaxation, and silence; and (2) an ability to observe one’s psychic content (Vespa et al., 2018). This will be explored in greater detail in chapter 2. The theory provided the conceptual framework for the formation of the research questions, as well as the narrative analysis.

### **Nature of the Study**

I conducted this study using a narrative analysis. This study conceptualized the narrative space with a three-dimensional lens into its inquiry and methodology. This considered the following three components when investigating the stories of the participants: interaction (personal and social); continuity (past, present, and future); and situation (place) (Clandinin, 2006). As life does not occur in a vacuum, a narrative inquiry incorporating a three-dimensional lens provided an understanding into the inter and intra personal relationships of the individual. Narrative analysis assumes that stories told by participants provided a relatively transparent window into the individual’s mind, experience, and identity; understanding that the stories communicated are greatly influenced by cultural implications and social conditionings (Lyons & Coyle, 2007).

Utilizing a narrative analysis methodology also allowed the interviewer to record and analyze participant feedback, while examining the information for themes and meaning. Providing for a wide range of personal, social, and environmental information regarding the participants' experience with healing through use and practice of the WHM.

Participants were chosen through purposive selection. This research was grounded in transpersonal theory, as it prioritizes spiritual development, a oneness of all life, and frames human function as infinite in its potential (Ferrer, 2014). It is suggested that through the use of the WHM, individuals are able to heal themselves (Kox, et al., 2014, van Middendorp et al., 2016). Therefore, it was important to gain a better understanding of what each individual experienced during her or his practice of the WHM. For instance, some meditations highlight the importance of chanting mantras (the repeating of sounds, words, or phrases), developing compassion (Hofmann et al., 2011), or focus on internal or external stimuli (Shonin et al., 2014); whereas the intention of other practices is to empty one's mind (Van Gordon et al., 2018).

### **Definitions**

*Autonomic Nervous System (ANS)*: Previously regarded as a system of the body that could not be controlled (Kox et al., 2014).

*Cold Water Immersion (CWI)*: Submersion of a body part, or of the entire body below the neck, into a cold vessel of water, often associated with impacting the blood flow of the submerged (Leeder et al., 2011). Spontaneous recovery refers to the resolution of symptoms outside of traditional Western medical intervention (Ozaki et al., 2017).

*Contemplative science*: An interdisciplinary investigation into understanding the effects of mental and physical training (such as meditation, Yoga, and Tai Chi) on the holistic functioning of the individual throughout the lifespan (Roeser & Zelarzo, 2012; Greenberg & Harris, 2012).

*Ego*: One's personal identity that is composed of individual thoughts, feelings, and beliefs. These thoughts, feelings, and beliefs are usually the result of a micro and macro level conditioning process. This identified separate sense of self serves as the interpreter to one's interaction with reality, preventing unity with pure consciousness (Sedlmeir et al., 2012)

*Enlightenment aka Self Realization*: To achieve union with the Whole (Castellar et al., 2014).

*Meditation*: Altering consciousness using a specific, or plethora of mental faculties (Sedlmeir et al., 2012). Examples of various types of meditation include transpersonal, mindfulness, and compassion focused (Sedlmeir et al., 2012).

*Observer*: Detached witness to the happenings of the moment. Here, detached is not to be confused with apathetic (Osho, 1974).

*Observing*: Witnessing, and even participating to the fullest extent in the events of life without attachment or identification to the outcome of said events (Osho, 1974).

*Pranayama, Yogic breathing, and breath regulation*: Systematic modulation of the breath, this includes, but is not limited to: paced breathing, rhythmic breathing, alternate nostril breathing, and breath retention (Saoji et al., 2019).

*Psychosomatic*: In the medical context, often used to describe mind-body relationships in terms of maladaptive thought processes that lead to malady (Faasse et al., 2014; Koshi & Short, 2007; Kirsch, 2014; and Kirsch et al., 2015). However, this study will refer to psychosomatic, as it was described by Louchakova et al., (2003) as psychosomatic mysticism; which suggests mind, body, and spirit to be various expressions of one, indivisible consciousness.

*Soul*: The spiritual part of the human distinct from the physical (Welch, 2012; Webster, 1991).

*Transpersonal*: The sacred, holy, divine beyond the personality of the individual (Welch, 2012). Transpersonal psychology is the exploration of consciousness, human potential and transformation, exceptional experiences, and development and function beyond the ego (Anderson, 2018).

### **Assumptions**

This study assumed that individuals have had the experience of healing themselves of analgesic issues through the WHM, including, but not limited to, meditation, breathing techniques, and cold immersion. It was further assumed that human beings have an ability to transform both physical and mental conditions through belief, intention, and expectancy (van Middendorp et al., 2016). It was also assumed that individuals who have reported a healing through the WHM are willing to provide a narrative of their experience. These assumptions were necessary to define the boundaries of this study. This further provided a means through which to seek an understanding into



the experience of meditation and healing in practitioners of the WHM. However, the researcher was open to whatever else may reveal itself through the course of this study.

### **Scope and Delimitations**

Health is a holistic endeavor. Biopsychosocial and economic influences penetrate and permeate from the micro through the macro levels of human function. Language, thoughts, feelings, expectations, intentions, beliefs, and perceptions often mar the objectivity of each moment. As Anaïs Nin forewarned, “we see things not as they are, but as we are” (Nin, 1961). The aforementioned subject matter, although suggested to be profoundly influential in determining one’s subjective experience of health were well beyond the scope and resources of this study.

Therefore, this study focused on understanding the experience of healing and meditation in practitioners of the WHM. Other practices such as prayer may serve the same feat. However, this was a nondenominational study, and prayer was not the focus. Further, this research was limited to individuals who have already experienced a healing through the WHM.

Research has indicated that advanced meditators experience a realization of universal oneness through their practice (Shonin et al., 2018). Transpersonal theory has purported that the highest of human achievement is a transcending of ego, and an understanding into the interconnectedness of all life (Boorstein, 2000; Khoury et al., 2016). For practitioners of the WHM to experience a healing, it has been suggested that, although this has been learned in under 10 days, this is an advanced practice. Although fMRI imaging is able to detect various neurological and physiological activity in

advanced meditators, there was still a need to understand this process through the mediator's narrative. Therefore, transpersonal theory provided the conceptual framework for this narrative analysis. A narrative analysis guided the formation of the interview questions, as well as the categorizing the narratives into themes. This study offers some transferability to several professional and academic disciplines like integrative medical practice, education, athletics and training, and other mental health healing arts.

First, this was conducted in English using a cross-cultural sampling strategy, thus non-English speaking participants will be excluded. Translators was not be used for this study to reduce costs. This study was limited to people who have experienced a healing through the practice of the WHM. The Wim Hof Group served as a distribution channel in helping recruit volunteers to participate in this study. Therefore, this study was limited by span of the Wim Hof Group through their outreach channels. Further, this study was limited by those who have attributed their healing to their WHM practice. For instance, this risks response bias given the subjective nature of the reporting.

### **Limitations**

Limitations to the transferability of this study included, but were not limited to: the purposeful selection of participants, researcher participant relatability throughout the open-ended line of questioning, researcher vigilance, quickness, and depth of response to what is said; levels of individual empathy (for both interviewer and participant); and prior knowledge. Of further concern was the potential for participants to engage in socially desirable behaviors and communications throughout the interview process (Fastame et al., 2013).

Potential biases influencing the outcome of the study were the researcher's previous experiences with meditation and various healing modalities outside of the WHM. I have practiced mediation since 2009, and served as an energy healer since 2014. Further, I have watched many hours of Wim Hof interviews, as well as downloaded and practiced the exercises as taught through the free WHH app through his mobile device. Therefore, it was vital to the integrity of this study to continue to engage in researcher reflexivity for bias.

The credibility of the study was enhanced through researcher reflexivity throughout the construction of the questions, as well as through the analysis of the data. Any internal dialogue that presents possible issues regarding projection and/or biases were presented to the Committee for peer review and guidance. To further ensure the internal validity of this study, the data was thematically analyzed by this researcher and the Committee to the point of saturation. Further, the transferability of this research was increased by providing a thorough description of the participants (while still maintaining anonymity), and the research process. The dependability of this research was enhanced by the following methods: informed consent; audio recording of the interviews; transcribing the interviews; and the oversight of the Committee to ensure proper and consistent coding and interpretation of the transcribed data.

### **Significance**

The experience of people who have been trained in the WHM and experienced a healing as a result of their training may provide greater insight and understanding into the phenomenon of healing through meditation. Thus, this study could serve to guide future

research assessing individuals' abilities to access and influence their health through a meditation practice. As the WHM is accessible to individuals worldwide, through video, workshop, or phone, the results of this study may inspire people to experience this and other methods as a means of enhancing their health and well-being.

### **Summary**

There existed a gap in understanding the phenomenon of healing and meditation, specifically, as related to practitioners of the WHM. This qualitative study sought an understanding into an individual's experience of healing through the practice of the WHM. This research further explored that individual's experience with meditation, breathing, and cold immersion. This study was founded in transpersonal theory. Insight into meditation, as well as its relatability with Cognitive Behavioral Therapy will be addressed in the following chapter. The participants selected for interview had reported a healing through the practice of the WHM. If it is reported that the healing was the result of meditation, intention, and/or training; this holds the potential for others to learn to perform the same, or greater feats, through instruction and/or self-exploration. This will be explored in greater detail in the concluding chapter of this study.

## Chapter 2: Literature Review

The purpose of the proposed research was to explore the experience of meditation and healing among adults who have trained in the WHM. Several scientific studies have been conducted examining the effects of meditation on analgesic issues and other physiological issues, while some research has even begun to explore its use towards the enhancement of cognitive, emotive, and physical abilities. There has been considerable research supporting the relationship between healing and meditation that may be attributed to attention and emotional regulation. However, the variations in meditation practices make it difficult to draw consistent conclusions (Hilton et al., 2017; Zaccaro et al., 2018). Researchers have called for further study of specific meditation experiences for the purpose of examining how trained meditators experience the focus and intent of their practice and the healing effects (Khoury et al., 2016; Sedlmeir et al., 2012).

Research has demonstrated that the use of meditation can result in maintained improvements to the practitioner's neuro-biopsychosocial well-being for novice practitioners (Saoji et al., 2019). Researchers have also reported that the following traits can be enhanced through meditative techniques practiced for a duration of time: focused attention, well-being, regulation of one's emotions, empathy, compassion, and physical health (Roeser & Zelarzo, 2012).

More recently, scientists have assessed an individual's ability to access and influence the automated nervous system (ANS) through meditative practices. In 2012, a group of 24 individuals trained in the WHM, were injected with the influenza virus while studied in a laboratory, and demonstrated an ability to activate the immune system and

fight off the fever and flu-like symptoms more effectively than the control group (Kox et al., 2014). However, further investigation into this phenomenon was still needed. The researchers reported that their study failed to identify the specific components associated with the trained group's ability to voluntarily activate the ANS through the breathing techniques (hyperventilation) associated with the WHM (Kox et al., 2014).

This chapter begins with a description of the literature search strategies used to investigate published studies regarding meditation and transpersonal psychology. Next, the theoretical foundations of this study are discussed briefly. This is followed by a synopsis of the application of theories and the conceptual framework in previous research. Key statements and definitions are briefly discussed, followed by an investigation into the applications and relevance of transpersonal psychology. The key variables and concepts of meditation have been explored at length. Assessing the scope, benefits, and limitations of the practice, while incorporating its recent widespread dissemination through the use of technology. This chapter is concluded with a summarization of past, relevant research, and a brief insight into the scientific and social implications guiding this study.

### **Literature Search Strategy**

Several search engines and databases were utilized to conduct this scholarly investigation into the preexisting literature. These included: PsycINFO, Google Scholar, Education Source, CINAHL & MEDLINE combined search, CINAHL Plus with full text, SAGE Journals, ScienceDirect, Education Source, ERIC, Academic Search Complete, Business Source Complete, SocINDEX with full text, and Taylor and Francis

Online. I have further browsed counseling and psychotherapy transcripts, client narratives, and reference works.

The following search terms, and combinations of search terms, were employed to find published studies and literature on transpersonal psychology, meditation, mindfulness, and healing: *meditation, breathwork, mindfulness, transcendental, spontaneous recovery, spontaneous remission, expedited recovery, expedited remission, cold immersion, cold water immersion, healing, health, Wim Hof, Wim Hof Method, controlled breathing, Yogic breathing, rhythmic breathing, slow breathing, paced breathing, Yogic breathing, Pranayama, Tummo, nostril breathing, automated nervous system, quality of life, enhanced senses, deliberate or purposeful hyperventilation, breathing technique, focus, attention, concentration, contemplative mental training, psychosomatic, energy healing, faith healing, prayer healing, Reiki, Prana, yoga, Qi Gong (Ki Gong, Chi Gong, and Chi Kung), Tai Chi, Tantra, alternative medicine, energy body, energy channels, life force energy, universal life force energy, hands of light, Wim Hof, Barbara Brennan, Mantak Chia, self-actualization, self-transcendence, human limits, transpersonal psychology, transcendental, existentialism, human evolution, human development, human potential movement, potentiality, guided imagery, holistic health, placebo theory, nocebo, contemplative science, human channel capacity, evoked potential, action potential, membrane potential, apparent movement, somatosensory evoked potential, post activation potential, long-term potentiation, excitatory postsynaptic potentials, achievement potentials, visual evoked potentials, human nature, human body, cognitive processes, endurance, strength, unitive being, parapsychological*

*phenomena, dialectical behavior therapy, cognitive behavioral therapy, positive psychology, theory of mind, mind body therapy, free association, materialism, insight, intuition, psychotherapeutic process, cognitive reserve, dream analysis, out of body experience, near death experience, ego and egoic transcendence, dream analysis, lucidity, lucid dreaming, dream recall, remote viewing, telepathy, telekinesis, psychokinesis, quantum theory, quantum mechanics, imaginal, collective consciousness, cosmic consciousness, consciousness, Maslow, human plasticity, Jung, and optimal development.*

Citation chaining and bibliography mining were used extensively in exploring and investigating referenced materials. Boolean searches of key terms were explored as subjects and field texts in peer reviewed journals from the last 5 years. For example, “potent\*”, was also used for “potential” and “potentiality”. When recent research was scarce or unavailable, key terms deemed vital to this research were searched to a date as archaically allowed by each research database. For instance, searching PsycINFO for articles related to “Qi Gong” (the most commonly used movement meditation practice) since 2010 produced 42 results. However, upon further analysis, several of these articles were simply authored by an individual with a similar hyphenated name. When “Qi Gong” was then searched as a subject matter, this only produced 4 related journal articles. “Chi Gong” searched over the past 5 years in the PsycINFO database only provided 8 results. When the publication date was broadened, this produced 12 available resources to investigate. However, when searched in Google Scholar, “Qi Gong” and “Chi Gong” produced 940,000 and 92,800 peer-reviewed journal articles respectively. These results



were then customized and scaled with various keyword and Boolean search methods. For example, “Qi Gong” when searched with “meditation OR mindfulness” then produced 10,700 results dating back to 2012. “Chi” means vital energy of the body, and “gong” refers to purposefully working this chi (Wang et al., 2017, p. 192). Chi Gong therefore means to cultivate this energy (Wang et al., 2017, p. 192). Qi Gong is an ancient art, considered by many, to be related to meditation, healing, Tai Chi, Kung Fu, and other forms of the martial arts (Field, 2009). Shaolin monks of Tibet are renowned for their incorporation of Qi Gong into their feats of power and endurance through the martial arts.

### **Conceptual Framework**

Transpersonal psychology served as the conceptual framework of this study. There has yet to exist a comprehensive theory to explain the various effects of meditation and why it works (Bloch et al., 2017; Cramer et al., 2017; Jo et al., 2016). This study was therefore be grounded in the key concepts of transpersonal theory. Transpersonal psychology is the exploration of human potential providing a comprehensible link between traditional, shamanic, and indigenous teachings and healing practices throughout the world with that of Western psychology (Marovic, 2017). For instance, the use of entheogens in the examination of accessing expanded realms of human consciousness (Friedman, 2006). Transpersonal psychology further seeks to understand how a transpersonal experience will alter the individual’s life from that day forth (Friedman, 2002). The foundational approach to a transpersonal orientation is that an individual may realize and experience oneness and an interconnectedness with all things, which is often cited as a goal/result of meditation (Boorstein, 2000; Khoury et al., 2016). Transpersonal

theory acknowledges the infinite potential of all human beings, and the scope of this theory incorporates the spectrum of human experience, including ‘ordinary’ and ‘non-ordinary’ states of consciousness (Marovic, 2017).

Transpersonal psychology is the exploration of consciousness, human potential and transformation, exceptional experiences, and development and function beyond the ego (Anderson, 2018). Its roots can be traced to Eastern conceptualizations about the nature of this human experience and the ability to transcend ego-based suffering and encourage a deeper sense of connectedness, ultimately leading to the highest expressions of human qualities, such as creativity, compassion, and selflessness (Kaspro & Scotton, 1999; Fisher, 1997). Some theorists, such as Maslow, propose linear stages of development, while Wilburn and others suggest the expansion and evolution of consciousness to be comparable to a spiral (Kaspro et al., 1999).

Prior to Carl Jung, Ken Wilber, Heinz Kohut, and Jean Gebser, historians have identified William James, Sri Aurobindo (through Yoga), and Pitirim A. Sorokin to be earlier founders of the transpersonal movement (Kaspro et al., 1999; Brown, 2013; Markides, 2008; Wall & Louchakova, 2002; Fisher, 1997; Schipke, 2017). Sorokin postulated that knowledge is accessible through the following three sources: senses, mind, and intuition (Markides, 2008). Abraham Maslow, Stanislav Grof, and Anthony Sutich are also credited with solidifying the transpersonal movement as a viable branch of psychology in the late 1960’s (Anderson, 2018; Ferrer, 2011).

Carl Jung proposed that transcendental experiences are accessible within every individual (Kaspro et al., 1999). Jung has also suggested there to be an underlying

essence to reality beyond, and in support of, materialism; often referred to as the unconscious (Brown, 2013; Schipke, 2017). Jung is further credited with serving as the first individual to connect the field of psychology with the cross-cultural, universality of human spiritual experiences (Kasprow et al., 1999).

In 1967, Maslow, revised his hierarchy of needs to include self-transcendence (the realization and function beyond that which is ego based) at the top of his pyramid (Guest, 2014). This distinction recognized a motivation beyond the self-serving, ego-based needs of self-actualization, and was inspired by universal principles such as truth, beauty, goodness, perfection, excellence, and simplicity (Guest, 2014). Maslow regarded the ultimate 'goal' of the mystic, to be a continual function in what he deemed, the plateau experience (Gruel, 2015). This state of conscious functioning was described as a simultaneous mixture of the ordinary and miraculous (Gruel, 2015, p. 45). This was also regarded as metahumanness (Gruel, 2015). Wilburn associated continual functioning from the plateau experience as the sahaja state (Gruel, 2015). It was later Wilber's proclaimed ambition to study the soul through the scientific branches of psychology and metaphysics (Fisher, 1997). Wilber decreed this pursuit, science of the soul, and is further credited with revitalizing an interest in the Human-Divine connection in the field of psychology (Fisher, 1997).

Owen Barfield has suggested the world to be a system of collective representations accepted as real (Brown, 2013). This purports a subjective experience and shaping of an objective reality by the collective. It is suggested that transpersonal psychology may be split into three schools of thought, these are: structural-hierarchal

(Wilber), spiral-dynamic (Washburn), and participatory (Ferrer) (Ferrer, 2011; Fisher, 1997).

Wilber's model conceptualizes the human development in three stages: pre-egoic, egoic, and trans-egoic. Washburn agrees that human development occurs in these three stages as well, however, likens evolution to a spiral, rather than a linear, construct. Participatory theory contends that no individual functions in a vacuum, and that transpersonal being can occur not only in the individual, but also the collective. These schools of thought have also been referred to as: neo-perennialist (Wilber), neo-Jungian (Washburn), and pluralistic-participatory (Ferrer) accordingly (Ferrer, 2011). This study does not seek to promote one disciplinary faction of thought over another, rather will incorporate the foundations of transpersonal psychology as the guiding principles of this research related to meditation and healing.

### **Applications and Relevance of Transpersonal Psychology**

Research has suggested that Abraham Maslow's insights into 'peak experiences' (those occurring via spontaneous or induced means), inspired transpersonal psychology to first examine the role of meditation in cultivating these events (Walsh, 1992). For instance, Wim Hof has claimed that humans possess the ability to willfully access and direct the ANS for the purpose of healing themselves (Hof, 2015). Transpersonal psychology is interested in examining the human being for these untapped gifts and/or abilities (Walsh, 1992).

Transpersonal psychology is the exploration of human potential (Marovic, 2017). At the transpersonal stage, it is the highest achievement to transcend the constructs of an

imposed upon ego, and live as one's authentic self. Through the transpersonal lens, two notable outcomes occur as a result of a spiritual practice: (1) centering, improved concentration, relaxation, and silence; and (2) an ability to observe one's psychic content (Vespa et al., 2018). These outcomes are also associated with the practice of meditation. A transpersonal framework assessed for the characteristics, effects, and means for inducing these transcendent experiences (Walsh, 1992).

According to Wilber, transpersonal psychology recognizes that consciousness occurs in the following developmental stages: pre-personal, personal, and transpersonal (Vespa et al., 2018). At the transpersonal stage, it is the highest achievement to transcend the constructs of an imposed upon ego, and live as one's authentic self. Transpersonal psychology investigates the human being from a post-materialist, metaphysical construct (Taylor, 2017). Providing a comprehensible link between shamanic and indigenous teachings and healing practices throughout the world, with that of Western psychology (Marovic, 2017). Therefore, transpersonal psychology allowed for a holistic incorporation and assessment of the information as reported by practitioners of the WHM experiencing a healing. Great disparities exist between theorists regarding the tenants of transpersonal theory. The theory held for the purpose of this study was that the mind is non-material, while consciousness is an inherent feature of the universe (Taylor, 2017). This further guided the interview questions and data analysis in distinguishing between states of ordinary and non-ordinary consciousness.

## **Meditation**

Meditation has been researched extensively in the United States since the 1960's. However, much of the science has focused on its effectiveness in the treatment of malady. Some research has explored its use as a tool for neuro-biopsychosocial enhancement, however, there is still much to be learned. This section will provide a thorough analysis of meditation as follows: definitions, historical context, methods and uses, how has it been studied, and the role of the teacher or guru.

### **Definitions**

The practice of meditation has deep spiritual roots to a variety of cultures and practices (Sedlmeir et al., 2012). These include, but are not limited to Hinduism, Yoga, Buddhism, Tantra, and Taoism (Louchakova & Warner, 2003; Lousada & Angel, 2011; Osho, 1976). It is suggested that many religions incorporate some form of contemplation, however, it is often in companion to some ethical and/or philosophical system (Buttle, 2015).

### **Historical Context**

Meditation has been used as a spiritual and healing practice for over 5000 years (Khoury et al., 2016). Meditation is the practice of mental and/or emotional control originating from the Eastern spiritual traditions of India, Tibet, China, and Japan; even existing in several cultural contexts, such as Islam and Christianity (Thomas & Cohen, 2014). Mindfulness is intuitive and preconceptual, stemming from a 2,500-year Buddhist psychology (Siegel et al., 2009). In the Theravadin Buddhist practice, there are four stages to enlightenment, each offering a progressively deeper separation from ego. The

four stages are in chronological order as follows: Sotāpanna, Sakadagami, Anāgāmi, and Arahant (Walsh, 1992).

Ralph Walden Emerson and Henry Thoreau are regarded as some of the first American transcendentalists, as is evidenced by some of their writings in the early 1800s, such as *Nature* (Emerson, 1836) and *Walden Pond* (Thoreau, 1962) (Greenspan, 1995). Paramahansa Yogananda traveled to California in the 1920s to establish the Self-Realization Fellowship, bringing yoga and meditation from India to the United States (Miller, 2018).

In the last 30 years it has moved into the mainstream American medical system as an intervention for a range of psychological and physical conditions (Shonin et al., 2014). Since the 1960s hundreds of scientific studies have examined translations of classic meditative texts, theoretical discussions, and experimental research (Walsh, 1992). In the late seventies, Ram Dass is credited with making yoga and meditation much more popular in the United States, as well as shifting the focus of enlightenment seekers away from that of escapism (Goldberg, 2013). During the 1970s and 80s, Osho (also known as Bhagwan Shree Rajneesh) was regarded as one of the most influential leaders in popularizing meditation in the West (D'Andrea, 2007). In 1979, Jon Kabat-Zinn introduced MBSR as a medical model, by presenting a secularized mindfulness practice to the medical community (Kabat-Zinn, 2011). Recently, quantitative measures have explored the effects of meditation on the biopsychosocial-neuro-spiritual aspects of the human being, while qualitative research has attempted to examine the phenomenon in relation to the practitioner's internal world.

## **Methods and Uses of Meditation**

A variety of forms of meditation exist. These include, but are not limited to, techniques that utilize cognitive, emotive, and guided processes (Sedlmeir et al., 2012). Although research indicates meditation is successful in the alleviation of malady, as well as the enhancement of an individual's neuro-biopsychosocial functioning, not all meditation practices are created equal. The effects of meditation vary with its technique. A meta-analysis was unable to allocate mutually exclusive properties to these methods (Sedlmeir et al., 2012). Three main meditation techniques well-researched include, focused attention meditation (FAM), open monitoring meditation (OMM), and loving-kindness meditation (LKM) (Lippelt et al., 2014). Tai Chi, Qi Gong, and Yoga have been categorized as a Meditative Movement (MM), and therefore a form of meditation in this study (Wang et al, 2017; Qi Gong Institute, 2018; Posadzki, 2010). FAM practitioners are guided to hone in on a specific object of attention, this can include, but is not limited to, breath, sound, feeling, symbol, or object. Over time, the FAM practice develops three regulatory skills to the point of instinct, these include the monitoring, disengagement, and redirection of attention (Lutz et al., 2008).

Open meditation techniques guide the practitioner to witness her or his inter and intrapersonal world unattached, such as from atop a mountain viewing a surrounding valley, and without judgment, beyond ego, time, and space (Boorstein, 2000; Sedlmeir et al., 2012; Osho, 1976; Cahn & Polich, 2009). OMM is often the result of a dedicated FAM practice, where the focus then shifts to the spectrum of stimuli, including, but not limited to, the intensity of the experience, emotional tones, and active cognitive schema



(Lutz et al., 2008). Open meditation has also been associated as a technique of mindfulness (Boorstein, 2000; Sedlmeir et al., 2012; Wang et al., 2017). Techniques in mindfulness may be associated with either concentrated, or open meditation. For instance, mindfulness has been regarded as bringing one's full awareness (concentration) and presence to whatever is occurring or being performed at that very instant without judgment, desire, and or expectation (Sedlmeir et al., 2012; Osho, 1976). Further, even open meditation can be used for concentration purposes (Boorstein, 2000).

The research has demonstrated that OMM practitioners outperform FAM practitioners in attentional scope and an ability to cope with unexpected internal and external stimuli (Lippelt et al., 2014). Different meditation practices activate various cortical regions of the brain. For instance, FAM resulted in greater right dorsolateral prefrontal cortex (dlPFC) activity, associated with repetitive directed attention, whereas, OMM stimulated an increase in theta activity (Lippelt et al., 2014). Further meditation practices include the use of visualization, in conjunction with other methods. For instance, Tummo practitioners imagine that the body is being heated to a desired degree by an internal flame, breathing techniques are incorporated to oxygenize the fire (Kozhevnikov et al., 2013). Other visualization techniques involve 'melting' into an omnipresent light or darkness (Lo et al., 2003).

### ***As a Therapeutic Intervention***

Meditation has been used as a standalone program, and in conjunction with other interventions. Practitioners of mindfulness meditation techniques, even outside the realm of seeking Nirvana or Enlightenment, have demonstrated an improved quality of life

through an increase in emotional regulation and a reduction in perceived stress, depression, and anxiety (Gotink et al., 2016). Research indicated that various meditation techniques result in different psychological effects (Kok & Singer, 2016). Researchers have attempted to equate the effects of meditation with relaxation techniques through cognitive and other psychological theoretical orientations. However, meta-analysis indicated that the effects of meditation on psychological variables (anxiety state, stress, cognition, negative emotions, learning, memory, negative emotions, intelligence, neuroticism, positive emotions, self-concept, attention, well-being, emotion regulation, perception, mindfulness, self-realization, personality, and empathy), as compared to that of relaxation techniques, have demonstrated an overall stronger effect  $d = .21$  (Sedlmeir et al., 2012).

Prolonged practice has been suggested to lead to ‘automated’ regulation of behavior (Greenberg et al, 2012). Research further reported that individuals experience greater self-compassion and life satisfaction through the practice of meditation (Shonin et al., 2014). Again, various meditation techniques result in different effects. For example, enhanced compassion and self-love resulted from compassion focused meditation, whereas, an attentional focus meditation derived improved perceptual abilities (Kok et al., 2016). Further physical benefits of meditation include, but are not limited to: increased immune functioning and improved well-being (Navarro-Haro et al., 2017).

The use of meditation, either by itself, or in conjunction with another program, such as a Mindfulness-Based-Stress Reduction (MBSR) or Mindfulness-Based-Cognitive-Therapy (MBCT) program have demonstrated sustained positive outcomes.

This includes an overall improvement in the quality of life as reported by practitioners, as a result in of: a reduction in stress, anxiety, and depression; better concentration; honed focus; enhanced emotional regulation; and an expanded perceptual ability (Kok et al., 2017). For instance, Dean Ornish's program has contributed to the reduction in symptoms of heart disease such as a reduction in atherosclerosis, lowered systolic blood pressure, and a decrease in the occurrence of cardiac events (Cramer et al., 2015). The program pairs healthy eating, daily exercise, love and support; with the use of meditation. Further, even combining mindfulness-based practices with music therapy have reported significant symptom reduction, such as distress, in patients with cancer (Lesuik, 2016).

Breathing-based meditations have demonstrated a reduction in PTSD symptoms in U.S. war veterans, and tsunami survivors (Seppala et al., 2014). Through daily practice, individuals eventually become aware of the gap of silence between thoughts. It is posited that breathing interventions may be successful in interrupting the relationship between stimulus and conditioned response in individuals suffering difficulty regulating fear (Seppala et al., 2014). There is no longer an identification with the maladaptive thought patterns. It has been further suggested that breathing regulation may be more effective than mindfulness meditation in reducing anxiety as it provides the practitioner with a method to immediately alter one's physiology (Seppala et al., 2014).

Scientifically, meditation is regarded as a self-regulated technique that hones attention (Jo et al., 2016). Research indicates that improvements in focus lead to improved cognitive and physiological abilities, even so far as to encourage access into the flow state (Harris et al., 2017). An individual's attention system is suggested to be

composed of the following three components: an alerting network, an orienting network, and an executive network (Jo et al., 2016). Concentration meditation, also known as focused and transcendental meditation, guides the individual to focus all attention on a single object (Boorstein, 2000). This can include breath, feeling, symbol, sound, visualization, memory, percept, and, but not limited to, movement (Boorstein, 2000; Sedlmeir et al., 2012; Osho, 1976; Greenberg et al., 2012).

Research has suggested that focused-attention meditation (FAM) along with a delay prior to performing a timed motor sequence task, resulted in participants exercising an improvement in cognitive control while completing motor tasks with greater speed and efficiency (Chan et al., 2017). It is further reported that a prolonged practice in meditation results in improvements in confidence, positivity, resilience, and in performing tasks requiring attention, interference control, and memory (Chan et al., 2017; Kass, 2015). However, to what degree does confidence in one's abilities affect the outcome of one's actions? These improvements in task performance are causally linked to the individual's honed ability to focus gained through meditation (Chan et al., 2017).

### ***Training Programs and Apps***

As technology has advanced and become more embedded into individual daily life, research suggests that it is important to find ways to bring a person back to her or his natural self (Bostock et al., 2018). Even if this is accomplished, ironically, with the use of technology. For instance, a study of 238 participants working for two large companies in the UK, demonstrated improvements in individual global well-being, blood pressure, daily positive effect, distress, job strain, depressive symptoms, and perceptions of

available support when engaging with a mindfulness meditation program accessed through a smartphone application at least 10 times over the course of an 8-week intervention period (Bostock et al., 2018). The use of a smartphone app to guide employees in mindfulness meditation is suggested to save the company time and resources, such as space for a group setting, or money needed to bring in a trained meditation teacher (Bostock et al., 2018). Other popular apps include, but are not limited to, Waking Up, Headspace, Mindfulness, and even Wim Hof offers a brief introduction into the WHM for free.

Initial studies have suggested that individual use of phone apps produce results comparable to that of face-to-face participation with a teacher in a group setting (Tunney et al., 2017). However, this may not be accurate as it is limited by subjective reporting. A noted difference in a qualitative study working with children found that face to face meditation interventions resulted in a greater likelihood of witnessing one's thoughts and letting them 'flow', whereas technology-based meditation interventions resulted in participants thinking about their thinking (Tunney et al., 2017).

Developments in technology now allow for the practice of guided meditation, with an emphasis on dialectical behavior therapy (DBT), through Virtual Reality (VR) (Navarro-Haro et al., 2017). Individuals wore VR goggles while sitting straight up in front of a computer (Navarro-Haro et al., 2017). The individuals were then taken on an all-encompassing sensory journey down a river in the middle of nature (Navarro-Haro et al., 2017). Participants were then introduced to sounds of the wild, calming music, along with prerecorded, guided suggestions believed to enhance states of mindfulness and

founded in traditional DBT (Navarro-Haro et al., 2017). Individuals reported improvements in mindfulness and a reduction in negative emotional states after participation in the VR DBT (Navarro-Haro et al., 2017). It should be noted that participants were already experienced in the practice of mindfulness (Navarro-Haro et al., 2017). It has been suggested that further research is needed in assessing the catalyst encouraging heightened states of mindfulness through VR (Navarro-Haro et al., 2017). For instance, were these positive effects the results of DBT suggestions, or a byproduct of the individual simply being engrossed in a calming environment in nature (floating down a river surrounded by mountains and the sounds of wildlife) (Navarro-Haro et al., 2017)?

### ***In Extreme Sports and Practices***

The severity of participating in extreme sports and practices requires an elevated focus. At the height of focus, it has been suggested that one enters the flow state. Functioning from the flow state (in the zone), is regarded as an experience of optimal performance, in which skill level meets the demands of a challenge, often resulting from preparation (Csikszentmihalyi, 1990). This involves performing effortlessly with limitless, precise, and elevated skill. It is an epitome for sporting performance, and sustained access to the flow state is the holy grail of athletic endeavor.

Athletes have suggested that analytical and critical thoughts are suggested to impede peak performance and flow states (Swann et al., 2016). Methods to improve performance in athletics often focus on the managing of internal content, or honing focus (Noetel et al., 2017). A quantitative meta-analysis assessed meditation interventions in athletes, 15 years of age and older, across a range of sporting activities, and found that

mindfulness improves precision sports performance (Bühlmayer et al., 2017). Research indicated mindfulness and acceptance-based approaches improve athletic performance through an automation of behavior (skill related to one's craft) as the individual becomes immersed in the present moment (Noetel et al., 2017). Thematically, athletes who have had the experience of an excellent performance often fluctuated between a flow state and clutch (a real-time appraisal assessing, and meeting/exceeding, the demands of the moment in relation to the desired objective of the activity) (Swann et al., 2016).

Functioning from the flow state may occur beyond the realm of competitive sports. For instance, this may include, but is not limited to: musical performance, computer gaming, military combat, the arts, dance, business, and academia (Moore, 2013). Mindfulness has been associated as a contributing factor for athletes to access the flow state and achieve a personal peak performance (Bühlmayer et al., 2017). Other factors associated with functioning from the flow state include, but are not limited to: definable goals, immediate performance feedback, a feeling of control, time transformation, a loss of self-consciousness, immersion of action and awareness, subjective intrinsic value in the experience, cognitive flexibility, and a high degree of concentration (Moore, 2013). All of which are outcomes of a deep meditative practice/experience (Van Gordon et al., 2018). Research has indicated that both flow state and mindfulness involve free from worry and living in the present moment; in fact, they are so similar, it has been suggested that they may simply be variant stages on a continuum (Moore, 2013).

### ***Biological and Psychoneuroimmunological Studies of the Effects of Meditation***

Meditation has been studied for its ability to treat malady, and enhance daily living. Researchers have examined the neuro-biopsychosocial effects of meditation, however, have yet been able to pinpoint the reason for its success. Some studies have attempted to equate its benefits to a therapeutic intervention, whereas others have suggested it to be psychosomatic, and/or the result of a faith-based healing.

A recent study attempted to separate spirituality from mindfulness meditation, based upon the participants' perception and conceptualization of 'self'. For instance, does the individual perceive oneself as connected, or separate from, a higher universal being' such as God or Mother Earth? However, the study failed to properly compartmentalize the secular meditative group, from the religious/spiritual (Barnby et al., 2015). For instance, even those instructed in secular mindfulness meditation had their teachings rooted in a traditional Buddhist practice. It has been suggested that any practice of meditation outside of a spiritual (ethical) context could result in the practitioner calming the mind in order to focus on more effectively engaging in detrimental activity, for example, harming another (Buttle, 2015). The study found that participants categorized into the religious/spiritual or secular meditative group resulted in slightly variant prefrontal cortical activation (Barnby et al., 2015).

### ***Advances in Medical Diagnostics and Technology***

Prior to advancements in technology, the study of meditation was limited. Often, only previously studied through third party observation and self-reports. Scientists were unable to distinguish a novice from an experienced meditator, beyond first-hand accounts



regarding the participants' abilities. At best, researchers had third party verification that the participant was an advanced practitioner. As the applications of meditation have expanded, so have the tools for its investigation. Researchers have now assessed the neuro-biopsychosocial effects of meditation through the use of electroencephalogram, magnetic resonance imaging, and blood samples. This has often been accompanied through the use of instruction, virtual reality, and or the use of self-reports prior, during, and post.

### ***Meditation and its Effects on the Brain***

Research has suggested that attention focused meditations further result in positive changes in P300 amplitude, contingent negative variation (CNV) amplitude, and frontal midline theta power (Cahn et al., 2009). A meta-analysis indicated that compared to non-meditators, long-term meditation practitioners demonstrate structural and functional differences in the following 8 regions of the brain: prefrontal cortex, sensory cortices and insula, hippocampus, and the cingulate cortex (Gotink et al., 2016).

Experienced meditators have also demonstrated increased blood flow to the frontal and anterior cortexes of the brain, as well as a growth in cortical thickness in regions of the brain associated with various sensory perceptions (Cahn et al., 2009).

These neurological developments have been associated with an enhanced meta-awareness and reappraisal, increased body awareness, improved memory, and elevated self and emotional regulation (Gotink et al., 2016). Further, it has been suggested that prolonged experience with meditation may lead to neurophysiologic states that are less reactionary to external stimuli which would often elicit an automated physiological or

emotional response in an individual (Cahn et al., 2009). Positive increases in participants' ability to exert increased cognitive control of attention occurred, even after a single session of FAM; although any prolonged effects after a single session have yet to be determined (Chan et al., 2017).

### ***In Consciousness Research***

Neuroimmunology has found that the body possesses the higher faculties necessary to bring about more profound expressions of consciousness (Louchakova & Warner, 2003). The brain is considered an ever adapting and evolving organ, continually responding to experience (Roeser et al., 2012). The development and use of these advanced faculties and states of consciousness is a tenant of transpersonal psychology (Louchakova et al., 2003). Neuroscientific studies have suggested that a deep meditative state alters delta rhythms; high amplitude gamma hemispheric synchrony; increased alpha (8-12 cps) and theta (4-8 cps) activity; integrative use of the right and left hemispheres of the brain; and creates a deafferentiation of the superior parietal lobe associated with physical, special, and temporal awareness (Kass, 2015). The increased neurological functioning gained through meditation has been associated with greater cognitive abilities for the meditator (Magalhaes et al., 2018). Research indicated that EEG activity occurs in the following stages in correlation to the deepening of the individual's meditative state: an increase in alpha amplitude and a decrease in alpha frequency, next, rhythmic theta trains, and finally, but rarely, bursts of high frequency beta (above 20 Hz) in meditators said to have attained true transcendence of the ego (Lo et al., 2003).

Research has suggested that sensorium feedback (various colors and sounds reflecting participants EEG and ECGs in real-time) was even more beneficial than mindfulness in altering theta and beta waves of the participants, and deemed more exciting (Hinterberger & Furnrohr, 2016). However, the researchers instructed the participants to witness the sights and sounds presented with nonjudgment and openness, a technique in mindfulness (Hinterberger et al., 2016). Therefore, it is an unfair assessment to accredit the sensorium as being more effective than meditation in eliciting altered theta and beta wave states, given that a meditation technique was used in conjunction with the sensorium.

#### ***As an Intervention and the Treatment of Malady***

A meta-analysis of 21 studies (N=2912) comparing meditation to a spiritual and healing practice, found the use of meditation to have a moderate effect on the reduction of maladaptive psychological symptoms, such as: depression, anxiety, and stress (Khoury et al., 2016). Previous research has suggested that the following traits can be cultivated through meditative techniques practiced for a duration of time: focused attention; well-being, regulation of one's emotions, empathy, compassion, and physical health (Roeser et al., 2012).

Meta-analysis has indicated that meditation is effective in improving the following, but not limited to conditions: fibromyalgia, chronic pain, depression, sleep disorder, stress, anxiety, and cancer (Shonin et al., 2014). However, the use of breathing influencing these positive outcomes must also be considered. It is hypothesized that these results are due to the increased oxygenation of the body, as well as the relaxation and

separation from the identification with the mind and past experiences (Osho, 1974; Shonin et al., 2014).

A meta-analysis of 38 studies of randomized controlled trials indicated that meditation produces a statistically significant effect for treating symptoms of depression and improving an individual's physical and mental health quality of life (Hilton et al., 2017). Although the research suggested a small effect size on meditation in the treatment of chronic pain, the studies lacked methodological strength. Therefore, further quantitative analysis with greater rigor, and larger sample sizes are needed to properly assess for the effectiveness in the use of meditation as a remedy for the treatment of chronic pain.

The practice of mindfulness has also demonstrated a positive correlation between developing an enhanced meaning in life and biopsychosocial well-being (Bloch et al., 2017). Finding meaning in one's life is also associated with a decrease in alcohol use in college students (Mermelstein & Garske, 2015). This may be related to the individual's newfound feeling of confidence. The success of mindfulness in reducing binge drinking habits has been associated with a greater sensibility to one's cognitive processes in social situations, an improved ability to say 'no', and a greater sense of self-control (Mermelstein et al., 2015).

### ***Long-Term Effects of Meditation***

Although many studies have suggested transcendental meditation (TM) to be the most effective practice generating the greatest positive psychological changes, a meta-analysis of 163 studies assessing the effects of meditation (transcendental, mindfulness,

guided, and other meditation techniques) on psychological variables in adult meditators, did not generate conclusive supporting evidence (Sedlmeir et al., 2012). Further, the effects did not demonstrate a correlational relationship between positive psychological improvements, and longevity of practice under 6 months. The meta-analysis did not discover continued improvement in psychological variables beyond one month, when assessing individuals meditating between 30-180 days (Sedlmeir et al., 2012). This is not to suggest that a dedicated meditation practice is without merit. The study did find increased psychological benefits after 10 years of practice, however, with that plateauing as well (Sedlmeir et al., 2012). Suggesting that the positive psychological benefits of meditation peaked at one month. However, the study only assessed for positive psychological effects, while comparative longevity studies of any significant duration (beyond a year), are often vulnerable to a plethora of negative, confounding variables. This includes: mortality, sickness, non-responsiveness, busy schedules, economic factors, familial issues, and, but not limited to, relocation. Further, it has been suggested that as psychological well-being becomes stable, practitioners will then begin to experience positive changes in their spirituality and consciousness; variables generally uninvestigated through standard personality questionnaires (Sedlmeir et al., 2012).

Through sustained practice, it has been reported that the individual begins to function beyond the immediate gratification of one's goals or desires, even when at the expense of others, and seeks to engage in behavior that is in greater favor of uplifting the collective whole. According to Kass (2015), the spiritually evolving individual sees beyond her or himself and is more likely to participate in community building with an

emphasis on inclusion, equality, and justice. Does one's ability to see beyond her or himself, expand one's self and provide a greater access to one's self, for instance, our automated nervous system?

### *In Practice of Extreme Conditions*

Through breathing techniques and meditative visualization, Tibetan practitioners of g-tummo, have demonstrated an ability to regulate their body temperature to extreme condition of drying wet towels on their heads while sitting atop the frigid Himalayan mountains (Kozhevnikov et al., 2013). However, little research exists examining the experience of meditation and healing in a practitioner of the WHM, which is strongly influenced by Tibetan Tummo meditation practices and techniques (Lichtenbelt, 2017). Current available research has focused on Wim Hof, commonly referred to as the Iceman, in his use of meditation, cold exposure, and yogic breathing to perform feats of strength, healing, and endurance (Lichtenbelt, 2017, p. 204). Wim Hof is renowned for his enthusiasm for life and the betterment of the human spirit (Lichtenbelt, 2017). He has gained acclaim throughout the years by treating his body as a science experiment and demonstrating what humans are capable of. He makes no claims of being special or gifted. He vehemently proclaims, he is simply modeling for people the strength, endurance, and ability they already possess within themselves (Lichtenbelt, 2017). He has set 21 Guinness World Records for his feats of strength and endurance along the way (Hof, 2015). Some incredible feats include, but are not limited to: running a marathon in shorts and barefoot, in the Arctic Circle; swimming 66 meters under ice; hanging from one finger at 2,000 meters of altitude; running a full marathon in the Namib Desert

without drinking water; and for staying lengths of time submerged in ice foregoing any physiological impairment (Hof, 2015).

Wim Hof has even gone so far as to create the WHM, which instructs individuals towards happy, healthy, and strong lifestyles through the WHM (composed largely of various meditation, breathing, and cold exposure techniques) (Hof, 2015). Through a combination of fMRI and PET/CT imaging, practitioners of the WHM have demonstrated an ability to engage higher-order cortical areas, activate brown adipose tissue (BAT), activation of the periaqueductal grey area of the brain, and increased sympathetic innervation effecting a variety of bodily functions such as blood flow and glucose consumption (Muzik et al., 2018). It was previously believed that such feats were beyond the realm of human competency and/or control. This has led researchers to suggest that practitioners of the WHM may exert greater control over the autonomous system deliberately alleviating physiological and psychological malady (Muzik et al., 2018).

For instance, a group of 24 healthy, males were randomly placed into an intervention or control group. The intervention group was instructed in the WHM (meditation, breathing techniques, and exposure to cold) for 10 days. The trained group developed the ability to voluntarily influence the sympathetic nervous and immune systems, including, but not limited to, the deliberate release of adrenaline (Kox et al., 2014).

WHM practitioners and a control group were injected with a bacterial endotoxin in a laboratory. The trained group demonstrated increased release of epinephrine, anti-inflammatory production, and a thinning of a proinflammatory response, whereas the

control group did not (Kox et al., 2014). Practitioners were able to activate hormonal production in the endocrine system. The adrenaline levels produced by the trained group were on average higher than an individual bungee jumping (Kox et al., 2014; Van Westerloo et al., 2011). This ability further effected their immediate physiological health. The trained group demonstrated a greater ability to fight off the symptoms of the bacterial endotoxin, such as fever and flu-like symptoms, than that of the control group (Kox et al., 2014). As individuals often experience psychological and physiological effects attributed to high degrees of self-reflection through meditation, first-person accounts of these experiences would be beneficial, and necessary to gain a better understanding of the practitioner's experience with meditation (Buttle, 2015). A follow up study of 12 healthy participants found a generalized optimistic expectancy regarding the effectiveness of the treatment was influential in positively effecting the automated nervous system and the effects of a bacterial endotoxin injection (Van Middendorp et al., 2016).

### ***Breathing***

Relatedly, research indicates breathing interventions improve emotional regulation (Seppala et al., 2014). Breathing is subject to both voluntary and nonvoluntary control by the practitioner through complex feedback mechanisms (Brown & Gerbarg, 2005). The use of various breathing techniques have demonstrated a distinct psychological and/or physiological effect on the practitioner. It is possible to voluntarily control the following, but not limited to, autonomic nervous system and neuroendocrine functions: heart rate variability, cardiac vagal tone, chemoreflex sensitivity, baroreflex,



central nervous system excitation, and the release of cortisol and prolactin (Brown et al., 2005).

### ***Cold Water Immersion***

A 2016 meta-analysis found that cold water immersion (CWI) demonstrated a more effective means to preventing muscle soreness following exercise, as compared to passive recovery (Machado et al., 2016). However, there are variables to consider. For instance, the temperature of, and time immersed in, the water influenced the effectiveness on the treatment, finding that between 11-15 °C and 11-15 minutes of immersion time produced the best results (Machado et al., 2016). It is suggested that the combination of hydrostatic pressure (immersion in water) and cold temperature may influence muscle recovery beyond simple exposure to a cold temperature (Hayter et al., 2016). Although the exact causes of effectiveness are yet to be known, it has been suggested that CWI is influenced by a change in blood flow, metabolic activity, and nerve conduction velocity (Machado et al., 2016). It has further been suggested that CWI (incorporating the aforementioned desired time and temperature exposures) may enhance training adaptation through the activation of signaling pathways (Hayter et al., 2016).

### ***The Role of the Teacher or Guru***

Current available research has focused on Wim Hof, commonly referred to as the Iceman, in his use of meditation, cold exposure, and yogic breathing to perform feats of strength, healing, and endurance (Lichtenbelt, 2017, p. 204). As mentioned, Wim Hof has gained worldwide acclaim for his feats of strength, endurance, and overall enthusiasm for life (Lichtenbelt, 2017).

It has been suggested that the character of the teacher or guide from whom an individual learns meditation is extremely important (Shonin et al., 2014). Three traits of a wise, effective leader are: charismatic, moral, and strategic (Tu & Thien, 2019). Charisma, originally referred to Divine gifts to help the endowed fulfill earthly tasks such as leadership, prophecy, and/or healing (Conger, 2011).

This appears valid, as an individual is likely to develop or acquire a greater aptitude for a skill when trained by an expert, rather than a novice. The teacher often serves to remind the student to refocus one's attention, or to allow undesirable thoughts or emotions to 'pass' (Myers et al., 2015). Research has suggested that it is the perception of the leader's aptitude, rather than their actual expertise, that serves as a defining characteristic effectuating her or his charismatic personality (Conger, 2011). A suggested correlation between group meditation and therapy, calls for greater insight and self-restraint exercised by the facilitator when engaging with her or his students. Thus, the importance placed on the authenticity and disposition of the guru when learning the practice of meditation (Shonin et al., 2014). As this power over people's lives may be exploited under the wrong intentions. Research has indicated that the dynamic between leader and follower exists when the interaction is perceived to be mutually beneficial (Conger, 2011).

Research by a young, filmmaker posing as a guru in the documentary *Kumaré* suggests that positive results may occur even when the alleged guru is a deliberate fraud (Carmel et al., 2012). Such as the success of a medical treatment is often strongly correlated to the patient doctor relationship, and the faith in the outcome of the prognosis

(Faasse et al., 2014). It was suggested the success of the guru was based off of the openness of the recipient (Carmel et al., 2012). However, everyone in the group need not subscribe to the authenticity of the alleged guru for success to be derived. It should be noted, the driving message of the film was for individuals to find their guru within (Carmel et al., 2012). An individual may learn meditation techniques through a variety of modalities. For instance, in person, remotely, or through studying literature.

### ***Placebo Effect***

The placebo effect is often linked to the treatment of analgesic issues through choice, observation, environment, and most importantly, belief (Faasse et al., 2014; Kirsch, 2014; Kirsch et al., 2015; Klinger et al., 2014; Luana et al., 2014; Whalley et al., 2013). Research on the placebo and nocebo effect has indicated that the success or detriment of a treatment can be traced to, amongst other factors, a positive or negative expectancy on the part of the patient; this suggests that human beings are empowered with a tremendous responsibility and choice in the formation of individual and group health. Individuals' expectancy is often influenced by those they deem to be of an elevated stature, such as a medical professional, teacher, and/or guru.

Evidence has indicated that the placebo effect can be extremely powerful under various circumstances (Kirsch et al., 2015). Current research on placebo and nocebo effect has examined a multitude of influences in an attempt to explain this phenomenon. The nocebo effect has served to further suggest the power of individual and group expectation on the outcome of a treatment, as it is a reference to the detrimental effects on health; resulting from a belief in a negative outcome arising from a treatment or

prognosis (Faasse et al., 2014; Kirsch et al., 2015). Some variables previously tested include: expectation, cognitive learning, previous experience with similar stimuli, observation, doctor patient relationships, social modeling, and the effects of language in treatment outcome (Faasse et al., 2014; Kirsch et al., 2015).

### **Summary and Conclusions**

Meditation has demonstrated success in the treatment of mental, physical, and emotional malady. Further, mindfulness techniques have been incorporated across a genre of spectrums in helping individuals achieve peak performance, as well as even enter into a flow state. The WHM incorporates meditation, breathwork, and cold-water immersion into their practicum. Practitioners of the WHM have even demonstrated an ability to withstand the effects of a bacterial endotoxin injection by accessing the ANS at will. However, there is a need to identify and isolate the mechanisms that contribute to the success of meditation in the treatment and prevention of analgesic issues, as well as greater insight into the components responsible for the holistic enhancement of the individual's well-being (Emerson et al., 2017). Therefore, this qualitative study will conduct a narrative analysis investigating WHM practitioners' first-hand descriptions of their experiences with meditation and healing as related to the Wim Hof Method.

## Chapter 3: Research Method

### **Introduction**

The purpose of this qualitative study was to understand the experience of meditation and healing in practitioners of the WHM. Investigation focused on their experience and processes prior to, during, and at the completion of this phenomenon. This chapter will first describe the research design and rationale. The role of the researcher will be discussed and assessed for objectivity and impartiality. After which, this methodology section will provide an in-depth examination into the constructs and controls of this research design. Ethical concerns regarding the protection of the participants and the data will precede the conclusion of this chapter.

### **Research Design and Rationale**

#### **Central Concepts and Phenomenon**

The primary research question this study addressed was: How do participants describe their experience of meditation and healing as participants in the WHM? Two key phenomena were studied: the experience of meditation and the experience of healing. For the purpose of this study, meditation is conceptualized as the techniques and their results which bring one to the present moment, independent of personality, past or future experience (Shonin et al., 2014; Van Gordon et al., 2018). Healing is conceptualized as the alleviation of a malady, pain and/or suffering without the use of medical or pharmacological intervention (Ozaki et al., 2017; Santoro, 2006).

## **Research Tradition**

The research tradition of this qualitative study was narrative inquiry. Researchers have utilized narrative review to qualitatively assess the experience of meditators, due to its open and wide investigative lens (Emerson et al., 2017). This study conceptualized the narrative space with a three-dimensional lens into its inquiry and methodology. This considered the following three components when investigating the stories of the participants: interaction (personal and social); continuity (past, present, and future); and situation (place) (Clandinin, 2006). As life does not occur in a vacuum, a narrative inquiry incorporating a three-dimensional lens provided an understanding into the inter and intrapersonal relationships of the individual. Narrative analysis assumes that stories told by participants will provide a relatively transparent window into the individual's mind, experience, and identity; understanding that the stories communicated are greatly influenced by cultural implications and social conditionings (Lyons & Coyle, 2007). Utilizing a narrative analysis methodology also allowed the interviewer to record and analyze participant feedback, while examining the information for themes and meaning. Providing for a wide range of personal, social, and environmental information regarding the participants' experience with healing through use and practice of the WHM. Research has demonstrated that this exploratory method of inquiry is helpful in charting experience (Shonin et al., 2014).

## **Role of the Researcher**

In this research, I served as an observer-participant. I interviewed the pre-selected population while transcribing, interpreting, and analyzing the data. As I was engaging

with the participants throughout the interview process by asking them open-ended questions, I was participating in the study. Transcribing the interviews served to identify and prevent any potential errors on my part as an interviewer, from working their way into this study and skewing the data. For instance, interrupting or leading the participants in their responses.

No past or current personal or professional relationships existed with the participants. I interviewed Wim Hof and his certified teachers and/or trainees. In 2020, I purchased the Wim Hof Method app for my phone. At the time, the purchase price was under \$5 US. The app provides brief insight into his WHM, which instructs individuals in the techniques of meditation, breath work, stretching, and cold immersion.

I have also served as a professional energy body worker since 2014, and participated in over 100 energy healing sessions since that time. The experiences that have occurred through the work with my clients had inspired my research into the span and replicability of these practices to anyone interested in learning. To minimize the risk of bias in this study, I did not survey individuals with whom I had a personal or professional relationship.

Prior to beginning this research, I had the belief that any well-intentioned and interested individual may experience a healing through the WHM. Researchers have attributed successful alleviation of malady in practitioners of the WHM with the individual's degree of optimism and expectancy in the positive outcome of the treatment (Van Middendorp et al., 2016). Therefore, to minimize researcher biases that could have occurred, such as leading or misinterpretation of the information, this study incorporated

a stringent assessment of the language constructing the open-ended questions to eliminate any potential projections or leading on the part of the researcher.

Other ethical issues that may have occurred were the protection of the participants' confidentiality, as well as ensuring that the interview process in no way served to cause any harm to the participants. The only issue that may have arisen, would have been interviewing participants about their healing experiences. The informed consent form, as well as myself, made it clear to participants that they did not need to answer any question(s) that made them feel uncomfortable. They were further informed that they were free to withdraw from the study at any time, with no repercussions incurred whatsoever. Further, as this was a cross-cultural study, this researcher ensured full compliance with the guiding practices of the United States, as well as any and all international regulations protecting the human rights of participants in all related countries and territories where participants may have been found.

## **Methodology**

### **Participant Selection Logic**

The population included women and men, 18 years of age or older. Isabelle Hof, the WHM's head of academy and scientific research pledged her support in reaching participants who had claimed or demonstrated a healing through practice of the WHM. The participants were selected through purposeful sampling from throughout the globe. Potential participants were sought through resources, such as: the internet (specifically, but not limited to, the Iceman (Wim Hof) Facebook community group, composed of over



219K individuals worldwide interested in, or practicing, the WHM), magazine and news articles, books, television reports, and, but not limited to, documentaries.

As this was a cross-cultural study, participants were required to have an ability to communicate in English at the minimum proficiency level of intermediate. Translators were not be used for this study to reduce costs. If the participant was not able to demonstrate an intermediate ability in the communication of English, they were not included in this purposeful sample. Further, as Wim Hof, and several of the participants included in the scientific study are located in the Netherlands, proficiency in English was not anticipated to be an issue; as the majority of residents in this country are able to communicate in English at the conversational level.

Participants were selected from reports of their experience(s) with healing through the WHM. The target sample size was kept to a maximum of 10 individuals. This was determined as an appropriate sample size dependent upon the parameter(s) of interest, goal of the research, and characteristics of the population sampled (Salkind, 2010). Participant selection was based on the following criteria: third and/or first party reporting that the individual experienced a healing through practice of the WHM within the last 7 years (2012 – 2019). Information was considered ‘verified’, for the purpose of this methodology, if it came through a reputable third-party source. This included, searches through scholarly journal articles, books, video, internet, podcasts, and government and third-party reporting.

Once identified, the individuals were then be contacted through any one of the following methods: phone, email, or direct message through social media. The potential

participant was informed that this research sought to interview individuals reported to have experienced a healing through the practice of the WHM. If the individual agreed to participate, she or he was then be provided with an informed consent form. The individual was allowed adequate time to review and sign the form, and informed that the researcher was available to answer any questions she or he may have prior to agreeing and signing.

I collected data from 10 participants. It was believed that 10 will suffice, as a small group of three to six people provides a broad spectrum of data for analysis (Saldana, 2011). A ceiling of 10 participants was not considered a saturation of the reporting. It was suggested that qualitative research will never achieve saturation of the material, given its subjective nature (Mason, 2010). However, limiting the study to 10 participants assisted this researcher in managing available resources (Saldana, 2011).

### **Procedures for Recruitment, Participants, and Data Collection**

An interview protocol was utilized to standardize the methodology and direction of this qualitative study. This further served to ensure the interviews maintain a standard of cohesiveness, while providing participants an opportunity to fully express themselves throughout each open-ended question (Boutain & Hitti, 2006). All interviews were audio recorded through Zoom. All audio recordings of the interviews were transcribed using Otter.ai software, and then verified for accuracy verbatim by the researcher.

One-hour interviews were conducted one at a time, however, several did extend past the hour. Prior to the interview, participants were contacted by the researcher. The participant was informed of the nature of this study and why they were selected as a

potential participant. The individual was then be asked if they would like to participate in an open-ended interview. When the individual agreed, a time and date for the interview was scheduled. She or he was provided with a consent form that was electronically mailed to her or his personal email address. Although included in the consent form, the individual was verbally reminded that she or he need not answer any question with or without reason should she or he choose. The participant was further verbally reminded that she or he was free to withdraw from the study at any time, with or without reason or notice.

On the day of the interview, the informed consent form had already been returned through email. The participant was reminded of her or his human rights as a participant, and asked if they have any questions prior to beginning the interview. When all questions had been answered, the participant was informed that the interview has commenced, and the audio recording of the interview had begun.

Once the individual agreed to participate, a time and date were scheduled to hold the interview. Audio interviews occurred through Zoom. A checklist of the technological requirements to digitally participate in the interview were electronically mailed to the participant's personal email address. All interviews were audio recorded. The participants were made aware of this prior to the interview, as well in the consent form. The participants were assigned a letter of the alphabet, to encourage and protect their confidentiality. The contents of their file and data were password protected. The password was made available only to the researcher and the supervisory Committee. The participants' information will be kept secure and confidential for 5 years. At which time,

a data destruction company will be contacted to properly destroy the information while maintaining the confidentiality of the participants.

The participant was first be thanked for her or his willingness to participate in this study. They were then again be reminded of the nature of this study, and encouraged to be as open and detailed as able and comfortable in her or his answers. The participants were asked a series of questions through narrative inquiry's three-dimensional lens [interaction (personal and social), continuity (past, present, and future), and situation (place)], while a transpersonal framework guided their formation. This helped in understanding the trajectory of the experience (Clandinin & Caine 2008). Their experience was considered from a holistic perspective. Assessing all that was experienced, as well as the experiencer and how they experience (Clandinin, 2007). For instance, they were asked:

1. Tell me about how you came to study the Wim Hof method.
  - a. Probe – history of condition or challenge.
  - b. Probe – history of experience of meditation, breathing or other transpersonal practices
  - c. Probe – history of experience with “flow states” or other “transcendental” experiences.
  - d. Probe – history of healing experiences
  - e. Probe – what else they considered
  - f. Probe. – choice of WHM
2. Tell me about your training experience with the WHM

- a. Probe: What was the most profound part of the training?
    - i. Probe: What was another profound training experience?
    - ii. Probe: What are some specific experiences regarding training in cold immersion?
    - iii. Probe: What are some specific experiences regarding training in the breathing technique?
    - iv. Probe: What are some specific experiences regarding training in this form of meditation?
  - b. Tell me about your experience of meditation during the training.
  - c. What was the most healing part of training?
    - i. Probe: What was another healing experience?
3. Tell me about what happened after you completed the training (the inoculation experience).
- a. Tell me about your experience of meditation during the inoculation experience).
  - b. What was the most healing part of that?
    - i. Probe: What was another healing experience?
4. Tell me about what's happened since your WHM experience.
- a. What's happened - meditation during the inoculation experience).
    - i. What's happened – healing
5. Is there anything else you'd like to share?

Member checking concluded the interview, and the data was incorporated into the results and discussion sections of this study. Participants were debriefed and provided with the contact information for free psychological services should they feel in need after participating in this research, at the conclusion of the interview. The participants were further given the contact information to this university's Research Participant Advocate. Participants were informed that this was and will be the only interview necessary for this research, however, they were provided with this researcher's contact information should they have any future additional questions. Participants were further provided with a brief synopsis of the interview, based on the big questions. This followed the coding, categorization, and analysis of the data. The summary was encrypted, password protected, and emailed to the participants for their feedback.

### **Data Analysis Plan**

RQ1-Qualitative: How do participants describe their experience of meditation and healing as participants in the Wim Hof Method?

The data was coded using deductive, inductive, and abductive reasoning (Saldana, 2011). The information was first examined through a deductive lens, followed by an inductive and abductive analysis respectively. The deductive process drew upon and assessed the information for appropriate coding themes, and then categories (Saldana, 2011). Inductive and abductive analysis guided the examination and interpretation of the data (Saldana, 2011). This study incorporated thematic coding of the phenomenon, as reported through the interviews. Any practices described by the participants as potentially contributing to their ability to experience a healing was first coded separately. All

information was coded for themes and reported based on their time of occurrence. This included: prior to, during, and following the experience of a healing. Thematic coding was used to assess and report the participants' experiences with the phenomena. The participants' cognitive and emotive processes and analyses of their experiences were further coded as a thematic subsection to the data. A thematic analysis of the participants' relationship to themselves, and others, was also included in the coding process.

Individuals were assigned a unique identifier (UID) to maintain their anonymity, which did not interfere with demographic analysis. Demographic factors included: age and gender. Patterns and themes were explored to gain a better understanding on which, if any, practices, could be coded as meditation. The data was coded and examined through narrative and thematic analysis. Committee members were asked to review the data, serving to double code the transcripts, and ensure consistency in this researcher's categorization and processes throughout the thematic analysis. Discrepant cases were noted and examined in the discussion section of this study. However, as this qualitative study examined a population of 10 individuals, discrepant cases were also included in the analysis of this study. Committee members were asked to assess the accuracy of my analysis.

Thematic analysis of the narratives was utilized to identify, analyze, and report patterns in the information collected (Saldana, 2011; Clandinin, 2006). The information was coded in the following manner:

1. The interviews were audio recorded through Zoom, and then uploaded to otter.ai, where the software automatically transcribed the data.

2. The transcriptions were edited for accuracy while listening to the audio recordings.
3. Notes were taken in a notebook during the interviews.
4. A comparative review of the interview, notes, and transcription was conducted twice to ensure accuracy.
5. The information was thematically coded through deductive analysis.
6. The codes were then clustered and examined for categories through inductive analysis. This included organizing the data into a Microsoft Excel worksheet, and then into 13 bubble graphs based upon emergent themes.
7. The categories were interpreted through an abductive analysis.
8. Extract and classify direct quotes and then categorized into the corresponding themes through in vivo coding.
9. This data was then again reviewed and a brief summary based on the big questions was sent to each participant for member checking.
10. The summary was reviewed for accuracy and trustworthiness of their shared story. Participants were asked to check for errors and/or omissions.
11. Seven of the 10 reviewed and confirmed the accuracy of their synopsis. Only one participant recommended a change, and this was related to the spelling of the word, “Kambo”.
12. The data was adjusted accordingly.
13. The full transcriptions were again reviewed and organized into 1-page summaries of each participant’s story.



14. The transcripts and thematic coding were sent for review to the Committee members.
15. Committee member feedback was incorporated into the final coding and categorization of the information.
16. The information was plotted into a storyline explaining each participant's experience.

### **Issues of Trustworthiness**

The credibility of the study was enhanced through researcher reflexivity throughout the construction of the questions, as well as through the analysis of the data. Any internal dialogue that presented possible issues regarding projection and/or biases were presented to the committee for peer review and guidance. It was necessary for me to continually engage in critical self-evaluation regarding his position and its potential impact on the outcome of this study (Berger, 2015). This necessity was further highlighted as the researcher had previous experience with healing modalities outside the WHM. Member checking was incorporated into the conclusion of each interview. To further ensure the internal validity of this study, the data was thematically analyzed by this researcher and the committee to the point of saturation.

The transferability of this research was strengthened by its cross-culture, purposeful sampling strategy. Further, the transferability of this research was increased by providing a thorough description of the participants (while still maintaining anonymity), and the research process. This included: the context of the research, its setting, sample, sample size, sample strategy, demographic, socio-economic information,

clinical characteristic, inclusion and exclusion criteria, interview procedure and topics, changes in the interview questions based on the iterative process, as well as excerpts from the interview guide (Korstjens & Moser, 2018). However, as a minimum, intermediate level ability to communicate in English was required to be selected as a participant; this limited the transferability of this cross-cultural research.

The dependability of this research was enhanced by the following methods: informed consent; audio recording of the interviews; transcribing the interviews; and the oversight of the committee to ensure proper and consistent coding and interpretation of the transcribed data. Further, to ensure transparency throughout the process, notes were compiled regarding the following: decisions made during team meetings, raw data, analysis notes, coding notes, process notes, reflective thoughts, research materials adopted, and information regarding the data management (Korstjens et al., 2018).

Confirmability for neutrality of the data was sought from the research committee. Reflexivity was incorporated to identify and minimize researcher bias throughout the study. Including, but not limited to: participant selection, line and method of questioning throughout the interview process, and the coding and interpretation of the data. Further a strong audit trail of all notes and data was provided to ensure a successful audit of the report.

The trustworthiness of this research was strengthened as this researcher thematically analyzed and coded the data in a consistent manner, thus providing intra-coder reliability. This encompassed the collection, transcribing, debriefing, examination, and reporting of the data. The committee chair provided feedback and guidance on the

categorization of data by themes. This was accomplished by discussing my structural and thematic analyses on a bi-weekly basis over Zoom conference. The transcribed interviews were first coded twice for themes and categories. The data was then compiled into a 2–3-page summation for participants to member check. Finally, the data was then whittled down to a 1-page brief and sent to the committee chair for review and discussion.

### **Ethical Procedures**

The IRB application was completed and included to ensure the ethical treatment of this study's participants. The three ethical principles of justice, beneficence, and respect for persons were incorporated throughout the entirety of this study, including, but not limited to: participant selection; informed consent form; confidentiality; participant right of refusal and right to withdraw at any time; and through the debriefing. The present and future well-being of all participants was held to the utmost of priority while conducting this research.

It was important for the recruitment material to communicate that this study is an investigation into understanding the participants' experience of a healing as related to their practice of the WHM. Therefore, it was vital to avoid any language which may contain or insinuate any traces of doubt or disbelief regarding the healing by the participants. As any perceived negativity could pose a potential detrimental effect on the biopsychosocial and spiritual well-being of the participants.

It was further vital that the participants understand they do not have to answer, or perform in any way whatsoever, in contradiction to their desired action. For instance, if they did not wish to speak about the illness that was healed, it was important for them to

understand that they have the right not to at any time. Even if they had already begun speaking on the subject matter.

Member checking was conducted at the conclusion of the interview, seeking participants' feedback regarding the process, content, and constructs of this study. A debriefing regarding an in depth look into the nature and purpose of the study was provided to all participants at the conclusion of the interview. Participants were also provided with contact information for free mental health services if they felt that the interview caused them psychological distress in any manner. Participants were further be provided the contact information of the Research Participant Advocate if they would have liked to report any irregularities perceived during the interview process, and/or seek further clarification. This included, name, telephone number, website, email, and mailing address.

Data will remain confidential and be password protected and stored for the required 5 year minimum following the completion of this study. The data will be stored in the home of this researcher, locked in a filing cabinet, kept on an encrypted USB drive, and placed away from public view. Only this researcher will have access to this password protected and encrypted data at any time during or following the completion of this study. At the completion of 5 years, a third-party data destruction company will be hired to destroy the data, while maintaining the confidentiality of the information.

### **Summary**

This study sought to understand the experience of meditation and healing in practitioners of the WHM. The participants were recruited through purposeful sampling,

and confirmed for their compatibility and fit to the purpose of this study through this study's committee. One-hour, open-ended interviews were audio recorded. The participants were properly debriefed at the conclusion of the interview. The data was transcribed and then assessed through narrative and thematic analysis. The following chapter will examine the findings of this study, including any themes discovered regarding the experience of meditation and healing as reported by the WHM practitioners under investigation.

## Chapter 4: Results

The purpose of the study was to explore the experience of healing and meditation in 10 practitioners of the WHM using a narrative analysis. Inter- and intra-personal domains were studied as participants detailed their experience of breathwork, meditation, cold immersion, and healing through the WHM. The research question was as follows: How do participants describe their experience of meditation and healing as participants in the WHM? Narrative analysis was used to explore the participants' stories for how they came to study the WHM, as well as their experience during and after completing the practice. Eight men and two women participated in the research. In this chapter, I address the following topics: results of the study, the setting, demographics, data collection, data analysis, trustworthiness, and results.

### **Setting**

All 10 interviews were conducted through Zoom at times that were convenient for the participant. Only audio was used and recorded on this platform for each interview. No significant deviations from the planned procedures were experienced.

### **Demographics**

All 10 participants have practiced the WHM and live currently in the United States. Two participants were born and raised outside of the US, however, resided in the US at the time of the interview. They were listed as US based, certified instructors on the WHM website. Their ages from 35 to 45 ( $M = 39.2$ ,  $SD = 8.4$ ). Participants were selected based on their experiences with the WHM.

### **Table 1**

*Participant Characteristics*

Participants	Age	WHM Instructor	Prior Meditation Experience
P1	45	Y	Y
P2	35	Y	Y
P3	38	N	N
P4	41	Y	N
P5	36	Y	N
P6	40	Y	Y
P7	39	Y	N
P8	37	Y	Y
P9	41	Y	Y
P10	40	Y	N

Each practitioner of the WHM described their story of healing and meditation using the WHM. Several participants with prior meditation experience, still reported difficulty quieting their minds and meditating before engaging in the WHM. This included but was not limited to the circumstances leading up to their discovery of the method, as well as their experiences with during and following their practice. Participants further described the transformative effects the method had on their biopsychosocial, emotional, and spiritual well-being.

**Data Collection**

A letter of cooperation was obtained from the head of academy for the Wim Hof organization. Eight participants were selected through purposeful criterion sampling. These individuals were found listed on the organization's website as certified instructors. They were then contacted through Facebook messenger or email. Snowball sampling was used for the remaining two participants. A one-page summary of the research was also posted to the Wim Hof Community message board on Facebook. My contact information

was provided and interested parties were instructed to reach out for further details. The head of academy stated that she would notify potential participants of the study through their newsletter. Data collection was conducted for approximately 3 months, between October 6, 2020 and December 18, 2020. All participants had experienced some form of healing through the WHM and saturation was reached regarding the lived experience of healing. Participants processed the lived experience similarly, but with variations based on their experience of healing, meditation, and enhancement through the practice.

Participants were interviewed on an audio call via Zoom. Nine of these participants were certified WHM instructors. All of the participants at some time had attended a minimum of one WHM workshop in person. Several had begun the practice on their own, with a friend, or through the mobile app or 10-week online course prior to attending the in-person workshop led by either Wim Hof or a certified instructor. All interviews lasted approximately 69 minutes, with a range of 51 to 92 minutes. All interviews were recorded through Zoom and then uploaded to a 2017 MacBook Pro laptop. The interviews were also recorded using an Evida digital voice recorder (model v618). Although 10 participants were interviewed, data saturation was reached near the seventh interview.

### **Data Analysis**

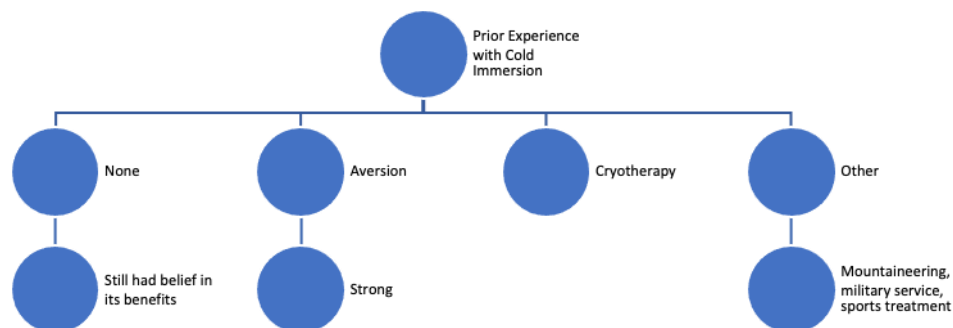
This study utilized a structural and thematic analysis to examine the data using Microsoft Excel and Microsoft Word. The structural analysis explored participants' experiences prior to, during, and following completion of a WHM in-person workshop. The data was then explored through thematic analysis for common themes and an answer



to the research question. Following the second summarization of the data, a thematic analysis was organized into a bubble graph. As shown in Figure 1:

**Figure 1**

*Participant Experiences with Cold Immersion Prior to WHM*



### Structural Analysis

The organization of the structure was guided by the interview questions that organized around *prior*, *during*, and *after* the WHM experience. The results of the structural analysis provided insight into the experience of healing and meditation for practitioners of the WHM through their narrative report. The narratives revealed many commonalities and a few discrepancies between experiences:

1. Prior to Participation in the WHM: Catalysts for the individual exploring the WHM.
2. During the WHM: The practitioner's experience during their first in-person official workshop.
3. Following the Completion of the Workshop: Participant's continued use of the practice and/or transformations experienced as a result of the practice.

Table 2 summarizes the results of the structural analysis. The first column represents the key domains of the interview guide, as described earlier in Chapter 3.

**Table 2**

*Participant Experiences Prior to, During, and Following Practice of the WHM*

Interview Guide Domains	Prior	During	Following
Reason for Engaging in WHM	Skepticism, curiosity and/or desired outcome	Profound	Results based
Meditation	Varied (e.g., none, moderate, extensive, and/or difficulty practicing)	Transcendental	Began or continued a meditation practice
Cold Immersion	None, moderate, reluctance, and/or extreme aversion	Transformative	Continued practice
Breathwork	None, moderate, or active practice	Transformative	Began or continued a breathing practice
Spirituality	None, diminished, renounced, or moderate	None, moderate, or transformative	Deeper understanding, greater connection with all of life and/or the Divine, and/or life changing
Healing	None, medication, therapy, and/or other practices	Expected or unexpected occurrence	Continued practice required for certain symptomatic reduction
Enhancement	None or through other practices	Moderate and/or profound	Moderate and/or exponential through continued practice

**Reasons for Engaging in WHM**

***Prior***

Reasons for engaging in the practice were varied, and included skepticism, curiosity, and/or a seeking a desired outcome. Many participants were attracted to the study because of the reported evidence-based outcomes. For example, Participant #10 stated, “I love the science behind it. I love that it’s backed by science.” Other participants became aware of Wim and his teachings through family, peers, and/or various media outlets (podcasts, documentaries, articles, and/or commercials). Participant #4 was more skeptical, stating that, “Yeah, when he [a bar patron] first started talking to me about this method, I heard hippy crunchy granola shit and was not impressed.” P5 stated:

So my dad had E.coli, and I know what E.coli can do to a human. And so I heard about the E.coli endotoxin experiment [...] So that was really I think, for me, that was the tipping point. So that when I found out about that experiment, I just went, like, I need to figure out how he did this. Right. So that was, that was a tipping point for me.

P2 explained:

She (wife) sort of just mentioned it, and then you know, I got online and I'll be honest, when I first saw Wim online, I believed or you know, was of the opinion this is a guy who's trying too hard. You know, he's been a bit crazy, because that sells, right.

***During***

Every participant had a profound experience with the practice. For example, Participant #5 stated as a former atheist, “my breath journey is what got me to a place

where I first felt the presence of God.” Participant #10 was a former Marine and found his profound experience in enhanced physical ability. P10 explained:

The first thing that caught my eye was the pushup example, where you know, I'm doing the breath work, I turn over, and all of a sudden, I could do more pushups than I ever could, you know, while I'm breathing, huge.

P6 stated:

The method had saved my life, I think. And I think really, what I meant by that was, like, there were definitely moments where I think I was going to end my life. And I didn't, because I had the moment to do the breath work [...] And then and then I'd be like, okay, and I and it was like, it gave me a clear head. And I'd be like, okay, okay, all right, settle down.

### ***Following***

Participants reported continuing their practice at the completion of the in-person WHM workshop because of the substantive results that the experience produced. These included: emotive regulation, pain management, symptomatic reduction, and/or a biopsychosocial and/or spiritual enhancement. For example, P4 disclosed:

My diabetes [was] helped by this, my mindset, my mentality, my anxiety and depression [were] helped, mitigated and sometimes abated. If I were to stop this practice, it would come back. So, I don't know if I can use heal or cure.

P10 reported:

Doing the breath work made me realize that I can do that [connect with God], whenever I want, you know, whenever I need, that mental clarity, or whenever

I'm feeling stressed, or I'm feeling anxious, I can sit down and reconnect with my breath, reconnect with myself, my consciousness, the universe, God, whatever you want to call it.

### **Meditation**

The results of this analysis revealed that participants came from a variety of backgrounds – some with no meditation experience at all, some with a regular practice. During the training, all participants described some kind of profound experience, and continued with some form of meditation practice after the training.

### ***Prior***

The majority of participants reported no prior experiences with meditation. Others communicated prior biases. For example, many of the participants reported trying meditation prior to the WHM. For example, several participants had in-depth or years of experience. Participant #1 stated that, “I went to a couple of Joe Dispenza, his weeklong, you know, meditation retreats, and different things.” However, Participant #1 reported never liking it, and having “...difficulty in sitting still and/or quieting the mind”. Three of the participants reported prior experience with meditation, with only two indicating any level of proficiency and/or aptitude. P2 stated:

Yeah, I find that it's pretty hard for me to meditate. I have sort of an imagination that kind of runs wild all the time and getting different kinds of meditation.

Sometimes you're saying the same word over and over again, or you're trying to think of nothing or you're trying to think of really nice soothing images or you know, I've tried a lot of different things.

### *During*

Participants varied in what they considered as meditation while practicing the WHM. For example, Participant #4 asserted, “breathing is meditation [...] so I absolutely love using the breathwork as my form of meditation.” P9 reported:

I use ice baths as a meditation. So, you know, when I'm doing an ice bath, and I'm going to sit in cold water, you know, typically I use about 42-degree water, if I'm going to sit in there for three minutes, that three minutes is a full meditation, you know, full meditative state, I could drop in to that theta wave state and be very calm, very present, use affirmations, mantras, all those types of things that would typically do in a normal meditation and get to these kinds of euphoric states.

### *Following*

Each participant reported an improved ability and understanding to experience meditation. Participant #10 stated, “And it's, you know, it's amazing, and it's just opened up so much for me, specifically in the realm of meditation, I had never meditated before in my life.” P9 explained:

Yeah, I was doing meditation. I was like, well aware that meditation was, you know, an effective modality. But I had a hard time kind of getting my mind calm and clear [...] The breathing has really helped me with my meditation.

### **Cold Immersion**

The participants reported many similarities and a few discrepancies related to cold immersion. Further, this varied based upon the type of cold immersion (shower, ice bath, or nature):

***Prior***

The majority of participants had little to no experience with cold immersion. Those who did so utilized cryotherapy, or utilized cold immersion as part of athletic training, mountaineering, and/or military service. Each participant expressed a strong dislike, hatred, and/or aversion to engaging in cold immersion prior to the WHM. For example, Participant #5 admitted, “it was when I was in mountaineering, where, you know, I don't like the cold at all. I quite despise the cold.”

***During***

Each participant reported a healing, profound, and/or transformative experience through the cold immersion. Often seeing the cold as a metaphor for life, and then utilizing it as a tool for emotional regulation. P2 reported:

It's so cold, that you feel like you're literally freezing to death, like, all your problems that you thought of, I think your body's just like, we're gonna put those to the side now, because we are literally concerned about staying alive [laughter]. You know, because when it's around like that low of a temperature, and you really have to, like sit in there and focus like, just kind of breathe - like not fight it.

***Following***

Participants continued to utilize various forms of cold immersion to influence their biopsychosocial and/or spiritual function. For example, stress management and/or reducing inflammation and/or chronic pain. P3 stated:

I had been working on like fear in my life. And so, when I would take cold showers [...] And just, you know, prior, I would be very, you know, stressed or

tired or low confidence, ruminating thoughts, self-doubt fear. And then after the shower, I would just be like, kind of laughing and light. From that, that reset.

P10 explained:

Learning how to manage one form of stress, obviously, you know, taking an ice bath is difficult, especially for someone who doesn't know what they're doing or for a first timer. But if you can learn how to take control of one form of stress, then you can then simplify that and then take control of other forms of stress by going through that same mechanical process of exactly what you did, you know, when you were subjecting yourself to a cold stress.

P4 stated:

So, by doing that cold exposure, and having that calm breath in that stressful situation, I'm actually rewiring my brains neurology. Instead of reacting to stress, with that clenching of muscles that quickening of breath and meeting it with force. I was now learning how to breathe calmly into the moment to keep my mental acuity to stay calm. And now the world can throw most anything at me. And I'll meet it with, you know, a calm breath and a quiet smile.

### **Breathwork**

One of the pillars of the WHM is breathwork. The breath is used to warm the body, calm the mind, induce altered states of consciousness, release emotional trauma, and, but not limited to, increase interoception. When warming the body during cold immersion, the intercostal muscles are engaged by creating sound; for example, humming or shouting on the exhale. Further, the parasympathetic nervous system is engaged by



extending the duration of the exhale. The hyperventilation technique involves deep, powerful inhales/exhales through any combination or use of the nose/mouth into the belly and chest. This breath is performed for either a designated set of repetitions or time. On the final exhale, the participant holds their breath for a predetermined period of time. For example, one and a half minutes. During the hold, the participants are instructed to relax deeper into the moment. Allowing their thoughts, feelings, and/or physical sensations their fullest expression. When the time has expired, or the practitioner can no longer hold their breath, they inhale deeply one more time into the belly and chest. This breath is held for an additional 15 seconds. During the DMT/power breathing technique, the speed of the inhale/exhale is increased; and the participant is instructed to use their mind to move the final 15-second breath hold to their pineal gland; before returning to normal breathing. For example, the participant may take 30 deep breaths, hold for one minute and thirty seconds, inhale again, and then hold for an additional 15-seconds. This would be considered one set, and the participant may complete 3 rounds, or an hour of this type of breathing. Participants are further instructed in box breathing and various other forms of breathwork to engage their sympathetic and/or parasympathetic nervous system in their daily life to enhance their emotional regulation, while increasing their interoception. Participant #8 compared the WHM to various other yogic breathing techniques, stating, “one of the things in kundalini, it's a lot of holotropic breathwork. It's a lot of like blood alkalization, where your carbon dioxide levels drop, similar to the Wim Hof Method, except they don't do breath holds like that.” Profound experiences occurred as a result of the breathwork for each participant:

***Prior***

Participants varied in their level of experience and practice of breathwork prior to the WHM. This ranged from none to proficiency and attending workshops and retreats in other modalities. P1 stated:

And so, using that [the WHM] breath work, to do not so much to do anything, but to allow some, you know, you can call it whatever you want to call to get in touch with the divine really, really being able to be introspective, right?

***During***

During the breathwork participants are instructed to surrender into the moment. They are guided to relax and scan their entire body using their mind, and enhancing their interoceptive skills. For example, feeling the beating of their heart, or the blood pumping through their veins. Participants are encouraged to allow their emotions to surface and be expressed with authenticity. Participants reported the group dynamic provided a safe container to dive fully into their breathwork and allow for any cathartic releases that may occur through the practice. Participants reported deeper meditations, healing, transformative, and transcendental experiences through the breathwork. Transcendental states included, but were not limited to: connections with God and/or the universe, visuals, witnessing their thoughts, feelings, and behaviors as an unattached observer, and/or a lapse in perception of time. This was often attributed to the participants' ability to surrender into the moment under the guidance of the instructor, as they were no longer forced to function from the mind while keeping track of time or repetitions of breath/breath holds. P6 reported:

It literally looked like an eyeball staring down at me. But it was as big as the ceiling. And I remember staring right at this thing shimmering and almost like those like fancy mandalas that you see people you know put up or you see in the inside of a mosque or inside the stained glass of a cathedral. But I specifically remember thinking it was golden. And it was shimmering, iridescent, like so, the shimmering was completely like all the colors of the rainbow iridescent like that almost like a snakeskin.

P2 explained:

Kind of feels like a trance. Sort of this. A little bit of like out of out of body, sort of. You're aware, but you're not ready to phrase it the right way. -- You're not, you're not thinking about anything [...] you're aware, but you're not really thinking of anything in particular.

P1 stated:

If I was able to relax my body a lot more in in the breath work, and then also in the retention, and certainly, if, if you're more relaxed, while you're doing the breath work, you're more likely to be more relaxed in your retention [...] you can go deeper into, into your, you know, your relaxation, and then those meditative sort of effects.

### ***Following***

Each participant continued their breathwork practice, although duration, frequency, and purpose of their practice varied. P6 stated:

I think it helped me [with] my cardio, it helped me in my martial arts, it definitely helped me, you know, in, in just in those brief moments of where I thought, you know, there was no future for me, or, or there was the, you know, I didn't want to live in this world or things like that [...] there were definitely moments where I think I was going to end my life. And I didn't, because I had the moment to do the breath work [...] And then and then I'd be like, okay, and I and it was like, it gave me a clear ahead. And I'd be like, okay, okay, all right, settle down.

P2 reported:

And as the weather's changing, I'll probably pick up my frequency [...] Because I am prone to like seasonal affective disorder. So I'll probably make more of an effort to do it more regularly. But I guess it's something that I've used sort of like taking Xanax, if I was going through stress in my life, if I felt like my mind was out of control, or I was feeling depressed or anxious, I might journal, I might do Wim Hof breath. It's a tool that I've used with more frequency at different points. But I'm not a regimented person who's like every day I get up and do Wim Hof for 20 minutes.

P9 explained:

And also, I noticed a real change in my mood and demeanor. So that meditative state that I was looking for that kind of parasympathetic, or you know, theta wave state of calmness present, I was easy, I was able to easily find that during the breathing and also in the cold-water therapy. So, like using those tools, were able to kind of put me into that state. Very quickly.

## **Spirituality**

Participants did not approach the WHM expecting to have a spiritual experience and/or awakening. However, this occurred in the majority of cases:

### ***Prior***

Participants reported involvement in religion as a youth, minimal consideration of spirituality in daily life, no affiliation, disgust with humanity, or aberration towards religion. For example, when asked if he had gained a greater compassion for others through the WHM, Participant #4 responded, “That is a vast understatement! I thought humanity needed to be drowned in a toilet before I did this.” P10 reported:

I grew up, you know, Catholic going to church every Sunday. Then when I went to college, I started studying every religion, and I thought, you know, I don't need necessarily to go to a certain designated place at a certain designated time in order to, you know, connect with God or the universe or whatever that may be.

### ***During***

Participants reported experiences of connection to their higher self, the Divine, or all of life and/or the universe while participating in both the cold immersion and/or breathwork portion of the WHM. P8 explained:

You're able to communicate more authentically with your spirit with your true essence. There's less judgement around your thoughts. It's more like a downloading than the actual thought, you know, when you're in that space, when you're in that stillness from meditation [...] it connects you with the spirit, which is, to me the essence, the interconnectedness of, of you to yourself and you to

others and the world around you. It's so much more powerful. You trust your intuition more. You trust your instincts more.

P6 reported:

Not attach an emotion to the physical pain that you have. Just accept it, like a light just came on a stove. You know, it's just like, it's just an indicator, a signal that something's happening. It doesn't necessarily mean you're dying, or you're gonna die, or you're dead. And when you really get into those states of being the sort of mental states of being this ethereal being.

### *Following*

Participants reported drastic inter- and intrapersonal spiritual transformation. For example, Participant #10 stated, that through the practice he “opened up to a completely different world.” P5 detailed:

I call it God, I will call it God, I mean it you can call it your higher self your whatever I genuinely believe the higher self is not high enough. There was a time when I believe in the highest and you should know like I went full 360. Okay, so like I started I was an atheist in my most of my life. I didn't believe in God. I didn't believe in energy. I didn't believe in source. I didn't believe in universe I don't believe in any of this stuff. I mean, if something wasn't backed up by science, screw it [...] I went back into Sufism last year because when God told me to go back into religion, I chose Sufism, because I couldn't get back into Islam like I don't know if you know what Sufism is. Sufism is at the esoteric version of Islam.

## **Healing**

Participants reported varying degrees of healing. Some were even unaware of dormant issues in need of resolution until beginning the practice. For example, healing occurred across a spectrum of human functions. This included but was not limited to: reduction in maladaptive behaviors; and symptomatic reduction of mental, emotional, physical, social, and/or spiritual malady. Many spoke of the healing of participants' inter and intra personal relationships:

### ***Prior***

Participants exploring the WHM as a healing modality had tried various medication, medical assessment, surgery, stem cells, psychotherapy, cryotherapy, and/or meditation/breathwork/yoga/spiritual practices, workshops, and/or retreats. P7 reported:

Um, so, I had gone to all their neurologist prior to the Wim Hof Method. There was another brain doctor that I had gone to during the Wim Hof Method. And that was the Ayman clinic and they do some other type of brain type of stuff and, and they were able to actually determine something that the other neurologists did not, which was that when I had hit my head, this last time, the blood flow pattern in my brain had changed [...] So they found out that I had a lot more blood flow in my limbic system part of my brain so more like my feeling part of my brain and a lot less flow, or a lot less blood flow in the prefrontal cortex. So, I was more emotional based instead of logically based right and so that's why things were throwing me for a loop to where I would cry a lot more in movies or the gaslight

thing would make me go into a panic tailspin type of stuff, because I couldn't...I was too emotionally based.

### ***During***

All participants experienced some form of sudden and/or immediate symptomatic reduction. P7 explained:

Um, it was just a very surreal moment [...] where everything kind of just came together. And I knew at that moment that I was going to be able to get back to a normal way of life. Maybe not having the roadmap but having the feeling of knowing I will succeed somehow.

P3 clarified:

It's at least a disrupter [...] It doesn't get rid of it completely. Although I will say that that's what sold me the first time, I ever did Wim Hof, is I had a sciatic pain flare for well over a month to the point where I was like having troubles sitting in cars [...] Like I had to brace myself into a floating position it was so intense. [...] But we got into an ice bath and the pain completely went away after that, like 100% so that was really interesting and useful.

### ***Following***

Participants experienced healings and/or symptomatic reduction through continued practice of the WHM following the in-person workshop. P10 reported:

After I got out of the Marine Corps, they put me on, you know, all kinds of anti-anxiety medication. And that's - so I stopped taking that. I just didn't feel right on it [...] since adapting, you know, the Wim Hof Method practice, I don't take any



medication at all, I was also taking naproxen just for, you know, inflammation, I was taking that every day, probably twice a day. And I no longer take that anymore, either.

P7 detailed:

[after suffering a debilitating 6<sup>th</sup> concussion] Um, just to where, like, my thoughts weren't controlling my emotions. So, when, in the beginning, when something would happen, I would have such debilitating anxiety that I couldn't be around anybody. And with doing the Wim Hof Method, I was able to get more - more empowered feelings, like I was able to control my emotions and I was getting over some of the depression [...] So, the Wim Hof breathing stuff was giving me more of those positive type of outlooks on life of, hey, maybe I'm not going to be like this forever, and there is something that can be done to get my life back to a more normal spot.

P4 reported:

My Diabetes helped by this, my mindset, my mentality, my anxiety and depression helped, mitigated and sometimes abated. If I were to stop this practice, it would come back. So, I don't know if I can use heal or cure. Like, with any sense of honesty [...] what so many people - healed, it doesn't, it helps reduce something symptomatically it helps reduce body inflammation, and if you keep doing it, then you know, those things will stay mitigated, and the symptoms may stay abated.

## **Enhancement**

Although healing may also be considered a form of enhancement, participants still reported additional improvements across their biopsychosocial and spiritual function:

*Prior*

Participants reported an understanding of their worldviews, physiological function, and inter and intrapersonal relationships prior to participating in the WHM. P5 explained:

I didn't even have to, like tell myself you don't have to be stressed right now. Like, no, like, the same situations were coming up that would previously cause a lot of stress in my life. And it just it was like, it was almost like, the switch wasn't working. I remember so clearly the one day that my boss came in and told me something which historically that event that he told me about pissed me off every single time [...] And this particular time, he told me and like it was like, nothing happened. And to the point that even my boss was like, "are you okay?" [...] Yeah, I'm okay [...] This is the calmest ever that I remember, I put, I couldn't believe it. I call up my husband. And I said, I can't believe I'm not pissed. I can't believe it. Like, I can't get pissed. [...] Like it's happening [the stress] in the background. And you're not even aware of it because the things that used to stress you before are not even in the horizon of stress anymore.

*During*

Participants reported gains in the following areas: mentality, emotional health, interoception, physical function, and/or spirituality. P10 stated:

The first thing that caught my eye was the pushup example, where you know, I'm doing the breath work, I turn over, and all of a sudden, I could do more pushups than I ever could, you know, while I'm breathing, and I thought, okay, that's not right. From a strength and conditioning perspective. You know, you tell an athlete, you can give them a 1% gain. And that's, you know, the difference between first place and 17th place in the Olympics. That's huge.

### ***Following***

Participants reported continued gains which correlated with the depth and frequency of their practice of the WHM. For example, Participant #10 reported that the practice “Opened [him] up to a completely different world.” P5 reported:

In the first one month of doing the method, all of my athletic performance went through the roof. I used to do kettlebell swings of 45 pounds. Right after I started doing the method, I straightaway went to over 100 pounds of things. Squats from 100/150 lbs. to about 400 lbs.

P2 stated:

Like physically, mentally. It, like right after that time, I started studying more and started working on getting a promotion at work. And I started taking on more responsibilities at work and I started you know, doing more runs getting involved with more stuff that really opened me up and believe me that made me believe that I could like handle more stuff. That's basically like how it felt. Because if you can, like if you can get past like, like that amount of cold. Like it makes you think like, you're more like invincible.

## Thematic Analysis

The interviews were analyzed for common experiences through a thematic analysis. This was accomplished through a thorough hand analysis of the data in relation to the research question, coding for categories and themes through inductive, deductive, and abductive means. For example, first highlighting and notating statements and phrases that sparked attention for their content or emphasis. These statements were then moved into groups that seemed to reflect a shared meaning. After conclusive themes were drawn from these groups, I returned to the data to verify these conclusions.

The themes were then analyzed for categories and codes. The discovered themes are summarized in Table 3.

**Table 3**

### *Summary of Themes*

<b>Theme</b>	<b>Example Quote</b>
Reason for Engaging in WHM	And I did exactly what Wim did [in the documentary], counted down, did the breathing. And I remember having like a religious experience, and I was like, this is serious stuff. (Participant #6)
Preexisting Problem	I had tons of neurological issues and tons of physical pain, muscle spasms, clonus, ... neuropathy.... (Participant #9)
Previous Experience with Meditation and Other Methods	Absolutely zero [...] I've been more of a gym rat, right. Like I work out do all the male type of stuff, right? And, and never did any yoga and never did any meditation. Never did none of that stuff. (Participant #7)
Previous Experience with Cold Immersion	So, my experience with cold I had some [through athletic training and location of residence] but it was [...] such a noxious experience. I didn't like it, I never liked it. (Participant #8)
Experience with WHM	It seems like the deeper you can go into relaxation, the deeper your connection is, to that state of being in the presence or the moment, or that awareness. (Participant #1)
Life After WHM	...getting involved with more stuff that really opened me up and believe me that made me believe that I could like handle more stuff. (Participant #2)

Belief Regarding Applicability of WHM	We see depression we see suicides or we see anxiety, you know, there are a lot of emotional and mental disorders that are really prominent and prevalent in our culture right now that this, this in particular, this breath work and this method in particular [...], the Wim Hof Method can drastically help with. That's power. It's like the air is free. (Participant #8)
Spirituality Before WHM	Since doing the Wim Hof method [...] it all just kind of ties together, you know, and I feel more spiritual, being more connected with other people and their feelings has really allowed me to not take things personally and be more accepting and outgoing and emotionally available. (Participant #7)
Spirituality After WHM	So, the spirituality aspect of it, again, has been amazing, and has opened me up to a whole new world. (Participant #10)
Meditation	Breathing is meditation [...] I prefer doing the Wim Hof Method breath work to reach that state. That may be cheating in some people's eyes but dammit it works for me. (Participant #4)
Healing	I think is a very effective tool for releasing kind of emotional discomfort. (Participant #9)
Profound Experience	My breath journey is what got me to a place where I first felt the presence of God. (Participant #5)  For me, the most profound was in the ice bath [...] I sort of had some questions about what was going on sort of relationally at the time with me [...] and then probably for the next two or three minutes, and maybe it wasn't even that long, it just seemed like time stood still, for me, and I got some really profound knowings about what choices I was going to make relationally over the next, you know, a couple of months, when I returned from Poland, got real clarity around, you know, relationship with my wife got some real clarity around, you know, I, it wasn't a big business decision, but we were looking at doing, you know, one things in our business, and I and it was almost like, asked and answered, right, like, in that moment. (Participant #1)
Examples of Transformation	I'm telling you, man, it's, it's, it's changed my life for the best. I'm, I'm not the same person I was before [...] I've, I've taken another outlook on life [...] So, anything that comes at my life negative now is more of how is this going to be an opportunity for me to learn to grow? (Participant #7)

In sum, each participant reported an experience of healing, symptomatic reduction, and/or enhancement through their practice. Further, every participant reported a profound, transcendental, and/or transformative experience as a result of the WHM. These results, and a discussion of discrepant cases and findings are discussed in greater detail in the Results section below.

## **Evidence of Trustworthiness**

### **Credibility**

A rigorous and thorough narrative inquiry was used to establish the credibility of this study. The participants were asked open-ended questions related to their experience with the WHM from a three-dimensional lens. As suggested by Clandinin (2006), the following three components were explored in detail: interaction (personal and social); continuity (past, present, and future); and situation (place). All participants went through the experience of healing and meditation through their practice of the WHM.

Member-checking furthered the credibility of this study seeking participants' feedback regarding the summation of their interviews for accuracy and authenticity. Seven of the 10 participants provided confirmation of their briefs. One participant corrected the spelling of an indigenous healing modality, and the other clarified an error in speech. This information was then edited into the data.

To further the trustworthiness of this study the following actions were taken. Detailed notes were recorded during and after each interview. These and any additional notes were logged in a journal dedicated to this research, via paper and pen. The notebook, independent recording device, and USB drive were stored in a locked safe; to which only I had the key. Interview summaries were compiled from the verified transcripts, categorized data in Microsoft Excel, and my notes. The briefs were then sent to participants approximately one-month following their interviews for member-checking. The summaries highlighted the participants' open-ended responses relevant to their experiences with the WHM. Each interview was then again reviewed and

summarized into a one-page synopsis. Finally, the data was organized into 13 bubble graphs based upon emergent themes. The theme, 'Experience with Wim Hof Meditation' contained so much data, that it was not feasible to accurately include all this information into one graph. Therefore, three separate bubble graphs were created for this one theme. These were based on the three pillars of the WHM, and as follows: breathwork, cold immersion, and meditation. The transcriptions, Microsoft Excel spreadsheet, summaries, and bubble graphs were sent to the committee chair throughout the process for review and refinement.

As an energy bodywork practitioner and experienced meditator my first-hand knowledge of transcendental experiences allowed for a more in-depth line of questioning. However, I was quick to point out to the participants that I wanted them to openly communicate their experiences using their language, as to better enrich the data. This further served as a prevention mechanism from projecting my own experiences onto the participant and biasing the data. At times the participants assumed I had knowledge of certain practices or biological mechanisms as a result of the WHM; however, I would then inform participants that I had not attended an official WHM workshop and that further clarification and/or explanation on their part would be appreciated. If I was unaware of a practice or technique relevant to their experience with the WHM, I would ask for clarification so that I could fully comprehend that data. Although interested in the WHM prior to beginning this research, I have refrained from attending an official workshop or certification program while conducting this study. Once this research is submitted for review, it is my intention to become a WHM certified instructor.

**Transferability**

In evidence of transferability, participants described many common experiences related to their practice of the WHM. For instance, each participant reported a profound, transcendental, and/or transformative experience. Further, all participants also described experiencing a healing, enhancing, and/or symptomatic reduction in malady as a result of their practice. All participants also reported a strong apprehension to, at minimum, one aspect of, the cold immersion.

**Dependability**

Throughout this research I implemented several strategies to continuously investigate any preexisting and/or emerging beliefs, prejudices, and/or expectations that may bias the gathering, interpretation, and/or reporting of the data. This included: asking participants for clarification during the interview; member checking; reporting and examining the data with my committee chair; and, but not limited to, repeated review of the data through various analytical methodology.

**Confirmability**

A clear audit trail implemented included: notes, audio recordings of the interviews, verified transcripts, interview summaries that were member-checked, additional interview summaries, as well as Microsoft Excel documents including themes, categories, and codes. Names and any other information that may identify the participant was omitted from the transcripts. All participants were assigned a numerical code in accordance with their interview sequence to ensure anonymity and confidentiality. The interview probes served to guide the interview for each participant. The research question



served as the foundational point of return while exploring the participants' experiences. Microsoft Excel and Microsoft Word were used to sort, code, and categorize the data. Frequency among the data was categorized, and direct quotes were used to establish confirmability. The exploration, interpretation, and conclusions reached from the data were in alignment with the literature review and transpersonal conceptual framework.

### **Evidence of Ethical Procedures**

I did not have a preexisting relationship with any of the participants. Individuals were selected through purposeful and snowball sampling. Their names were replaced with numbers to protect their confidentiality. When participants came through a referral, I would still refrain from disclosing any information about the individual whom had referred them. The data was stored on my password protected, personal computer, as well as on a USB drive and in a notebook. Both of which were stored in a locked safe.

### **Results**

The purpose of this study was to understand and describe the experience of meditation and healing from the narratives of participants in the WHM. The results of the structural analysis revealed fairly consistent narrative arcs from the experience prior to, during, and after the Wim Hof training. For example, all participants continued to practice the WHM after the in-person workshop. Common themes included the healing, management, and/or enhancement of their biopsychosocial function. All participants reported an enhanced ability to enter a deeper meditative state through the WHM [as opposed to prior the practice]. Further, the majority of participants reported a positive shift in their worldview, and inter and intra personal relationships. The results of the

thematic analysis gave rise to 13 common themes that describe the participants meaningful and challenging experiences. These are examined in detail below.

### **Reason for Engaging in the WHM**

Individuals were exposed to the WHM via family, peers, and/or media. Several were initially skeptical of Wim and/or the method due to his zest when presenting the information. Participants engaged in an in-person WHM workshop for the following reasons: curiosity, recommendation, and/or achieving a desired outcome. Curiosity was often accompanied with the participant having a profound experience through the method on their own, prior to attending a workshop. This was accomplished by following along with the free material available online, and/or practicing with a friend who was also familiar with the method, but was not a certified trainer. Participants also decided to explore the WHM due to repeated exposure interpreted as a guiding sign from the universe. Individuals were further attracted to the WHM for its empirically backed findings, and/or an interest in health and fitness. P1 disclosed:

And so [I] was a little skeptical. Not so much because I didn't believe in breath work or, or cold exposure. You know, that made some sense to me. It was more just, you know, here's a guy who's trying a little too hard.

P9 reported:

Well, it all started for me watching a documentary, I saw a documentary, I was fascinated by some of his claims by his character, and, you know, kind of shared it with friend, he was intrigued as well. So, we both kind of started exploring how to do the breathing exercise on our own. And, you know, kind of learned, you

know, just like bits and pieces from YouTube, which was relatively easy to learn. But, you know, I didn't know all the ins and outs, I didn't know the science, I didn't know how you know exactly what was happening in the body. All I know is that the breathing exercise worked, and I was relatively new to breathing exercises at that time.

### **Preexisting Problem**

Participants had numerous preexisting internal and/or external problems either known, or unbeknownst prior to beginning the WHM. Examples of external problems included relationships and work; internal problems included emotional distress and illness. P5 reported:

So, prior to the Wim Hof Method I used to I used to fall sick a lot. [...] I used to [also] have extreme pain when I used to have my period to the point that I could not function [...] I got my period when I was 12 years old [...] We're talking about over 20 plus years of my life, I could not function two to three days in a month.

### **Previous Experience with Meditation and Other Methods**

Participants ranged from having previous experience with meditation to none at all. Several reported a difficulty sitting still and quieting the mind, while others regarded the practice with bias. Meditation practices included: focused attention meditation (FAM), open monitoring meditation (OMM), and loving-kindness meditation (LKM). Meditative Movement (MM) included, Tai Chi, Qi Gong, and Yoga. Other methods of seeking alleviation from preexisting problems consisted of, but was not limited to,

breathwork, therapy, journaling, medication, entheogens, TMS tension myositis syndrome, tearing up lists, the Arts (theatre), movement, Pilates, Maffetone method, martial arts, high adrenaline sports, wilderness and paramilitary survival training, primitive survival, homesteading, exercise, float spas, and/or sensory deprivation tanks.

P3 stated:

I was studying TMS, tension myositis syndrome [...] I'd gotten rid of back pain, through writing lists about how I was worried about things. I would write lists, and then my back pain would go away if I tore up the list.

### **Previous Experience with Cold Immersion**

All participants reported a strong aversion to cold immersion prior to beginning the WHM. This included the following, but not limited to, experiences: cryotherapy, ice baths (through athletics), military service, and/or cryotherapy. For example, Participant #10 reported that while in the Marines, "It was just kind of, you know, grin and bear it kind of thing. But it was not fun. There was nothing enjoyable about it." While Participant #8 stated, "Yeah. I've always hated the cold, to be honest with you [referring to ice baths for athletic recovery]."

### **Experience with WHM**

The WHM consists of breathwork, cold immersion, and meditation. Participants' experiences varied with each pillar of the practice, however, entering a transcendental state was associated with each part of the method. Further, participants reported a greater ability to enter this transcendental by accepting and surrendering/relaxing into the moment. This would often result in a profound and/or transformative experience for the

participants. Common themes amongst the breathwork and cold immersion included: healing, enhancement, and a more powerful experience when performed in a group setting. Further, it was reported that the quality of the facilitator and group size also influenced the depth of the participant's experience. Several participants stated that impact the practice had on their mindset was one of the most important aspects of the WHM.

Participants received in-depth instruction in the following breathwork modalities: paced breathing, hyperventilation, and retention. Participants learned how to influence their parasympathetic and sympathetic nervous system through the breath, thereby exerting greater control over their cognitive, emotional, and physiological functions. Including, but not limited to, improved interoception, quieting the mind, stress management, reduced inflammation, pain management, and/or heating up or cooling down the entire body (and/or isolated areas of the body) at will. Participants also reported increased access to a natural production of N-Dimethyltryptamine (DMT) through power breathing, also resulting in transcendental experiences. A more intense form of the hyperventilation technique, in which the energy is consciously directed towards the pineal gland through the retention portion of the breathwork.

Cold immersion included ice baths, cold showers, hikes in nature, and/or submersion in natural bodies of water. Submersion in natural bodies of water does not include the head, and is performed in a supervised, group setting. Participants were instructed in various methods to warm their body prior to, during, and after exposure to the cold. For example, while submerged in an ice bath, participants are instructed to focus

their breath on the exhale, thereby accessing the parasympathetic nervous system and reducing mental and physiological stress. Following the ice bath, participants are guided to warm their bodies using the “horse stance”, a technique engaging all the major muscle groups (including the intercostal muscles, legs, back, chest, arms, and core), while incorporating various breathing and sound techniques. Although this practice is not officially described as a form of Qi Gong, several participants regarded it as such. P7 reported:

In the beginning of it, it was a psychological and also physical response to the cold in order to warm up. So, before I would get in an ice bath or a cold shower, I found that doing the breathing practice first helps. And the reason of that is disassociation between those pain receptors and thermal sensors in your body. So having gone through the breath practice of the Wim Hof Method, you almost like get a full body shot of Novocain. So, the cold isn't as shocking as it normally would be. If you didn't do the breathing practice first.

P1 explained:

If I was able to relax my body a lot more in the breath work, and then also in the retention, and certainly, if you're more relaxed, while you're doing the breath work, you're more likely to be more relaxed in your retention [...] And probably the other thing that was really [...] just the power of the group and doing breathwork together was something that I hadn't expected.

### **Life After WHM**

All participants continued their practice, while 9 of the 10 participants became certified WHM instructors. Each participant reported that their life had changed for the best. Participants often chose to explore/pursue other health related modalities. This included: yoga, meditation, various breathing techniques, and/or becoming a certified physical fitness trainer. Following the WHM, the participants experienced a healing, symptomatic reduction, and/or enhanced biopsychosocial function. P2 reported:

Right after that time, I started studying more and started working on getting a promotion at work. And I started taking on more responsibilities at work and I started you know, doing more runs getting involved with more stuff that really opened me up and believe me that made me believe that I could like handle more stuff. That's basically like how it felt. Because if you can, like if you can get past that amount of cold. Like it makes you think like, you're more invincible.

P4 stated:

The world's just a beautiful, more happy place [...] I can choose to get in the ice every day, and be a little uncomfortable. But know that for six days afterwards, I have anti-inflammatory endorphins going through my body making me hurt less. So, for two minutes of being uncomfortable, I can get up to six days of relief [...] Why would I not lean into that discomfort? If I make hard choices, I'll have an easy life.

### **Beliefs Regarding Applicability of WHM**

Participants several beliefs regarding the applicability of the WHM. It was regarded as the silver bullet for anxiety, a great tool to help others, and an attractive

means to reach a meditative state for those not usually drawn to meditation; either due to cognitive aversion, an inability to sit still, and/or a restless mind. WHM was also believed to be appropriate for individuals attracted to its physical, primal nature, and those interested in a practice that can provide scientific evidence to substantiate its claims. Participants report that the WHM is comprises a fun, welcoming, and supportive community. Participants further believe the results garnered are in direct correlation to the amount of work dedicated to the practice. Therefore, practitioners are empowered to exercise control over their health. Participants reported that the practice is readily available to individuals interested in optimizing their biopsychosocial, emotional, and/or spiritual function. Several participants cautioned against the competitive nature of timed breath holds and cold immersion either with themselves or one's neighbor. P6 stated:

It wasn't just working for me [the WHM], it was working for me and my job when I'm working with a veteran who hadn't slept for a couple of days, or was in a full state of panic attack or was also in a state of extreme state anxiety, and just needed relief [...] And that, to me, more than anything is what where, where, like the Wim Hof Method, I can say, for sure, was effective, and still is effective for a lot of people.

### **Spirituality Before the WHM**

Participants reported one of the following states of spirituality prior to their participation in the WHM: none, religious as a youth, nonpracticing, but still considered belonging to a particular sect, disliked religion, or engaged in other spiritual practices. P7 reported:



So, I grew up religious, you know, believed in God. Christian went to church every Sunday. And I'm sure like most people, you know, I did that when I lived at home and then in my 20s, I just kind of stopped doing all that stuff.

### **Spirituality After the WHM**

Participants reported significant changes in their spirituality following their practice of the WHM. The majority of participants reported some form of spiritual awakening. This included, but was not limited to: having a deeper sense of understanding, interconnectedness, and oneness with God/life/the universe/their higher authentic self; the experience of peace and/or unconditional love; a greater ability to trust their intuition; and/or the participant reported being opened up to an entirely new world.

P7 explained:

After doing the Wim Hof Method, I feel like life's not as serious as I took it to be before [...] I'm a big believer in Alan Watts ever since I've started doing the Wim Hof Method [...] Something that he talks about is that everything is connected. Everything's one. What's the thing I'm trying to say? I believe, after doing the Wim Hof Method, that everybody is a version of the universe experiencing itself.

P10 detailed:

As you get deeper into the practice, I think that it can lead to these profound, spiritual like experiences [...] doing the breath work made me realize that I can do that, whenever I want, you know, whenever I need, that mental clarity, or whenever I, you know, I'm feeling stressed, or I'm feeling anxious, I can, you know, sit down and you know, reconnect with my breath, reconnect with myself,

my consciousness, the universe, God, whatever you want to call it [...] I don't know the answer to that question. But it does provide me with that, you know, that sense of peace.

### **Meditation**

Participants described both cold immersion and the breathwork as forms of meditation. Further, each practitioner reported a greater, and expedited, ability to reach a deep meditative state as a result of the WHM. Through their meditation practice, participants also reported common occurrences of entering transcendental states, improved interoception, as well as increased introspection and empathy. Further commonalities included, but were not limited to: improved moment to moment awareness of their breathing, a calmer state of function, greater emotional regulation, improved creative visualization, natural highs, enhanced focus, and, but not limited to, a greater access to the flow state. For example, P10 explained, "It's opening up to a completely different world. Just with meditation alone, again, I had never meditated, I didn't really know what meditation was."

P1 stated:

In 15-minutes of breathing, I was having similar feelings to doing longer meditations, right? And it was easier for me from the standpoint that, you know, the idea of, if you want to call it somewhat traditional meditation of trying to think about nothing, or trying to, you know, be void of thought, let's say. It was challenging for a while for me, and I can meditate with some ease now. But it was like, okay, here's a tool I can use almost anywhere.

## Healing

Several participants were careful not to use the term 'healing' and clarified that they had experienced symptomatic reduction as a result of the WHM. They pointed that this was due to their need to continue the practice in order to continue to receive its benefits. Other participants stated that they had been healed as a result of the WHM. Participants reported a healing and/or symptomatic reduction in the following categories: mental, emotional, physical, social, and/or spiritual. P9 reported:

The breathing exercise, and is a very, very effective tool. And if you have some trauma, which I think everybody's walking around with some level of trauma in their nervous system, and you go through some deep breathwork [in a] guided safe space, relaxing, music, all that kind of stuff. You can really let go of a lot of stuff that's kind of holding you down and feel a little bit more free and release things that maybe you didn't even know are bothering you. So, I think is a very effective tool for releasing kind of emotional discomfort.

P10 revealed:

Then the more I got into it, I found the mental health benefit. And for me, that was, I mean, the absolute game changer [...] I was taking, you know, prior to when, after I got out of the Marine Corps, they put me on, you know, all kinds of, you know, anti-anxiety medication [...] so I stopped taking that. I just didn't feel right on it, but I, you know, I didn't necessarily feel good, but then, you know, since adapting, the Wim Hof Method practice, I don't take any medication at all, I

was also taking naproxen just for, you know, inflammation, I was taking that every day, probably twice a day. And I no longer take that anymore either.

P6 disclosed:

There were definitely moments where I think I was going to end my life. And I didn't, because I had the moment to do the breath work [...] And then and then I'd be like, okay, and I and it was like, it gave me a clear ahead. And I'd be like, okay, okay, all right, settle down.

### **Profound Experience**

Participants reported a profound experience as a result of the WHM. For some this occurred through the breathwork, others while immersed in the cold. Profound experiences spanned a spectrum of human function. This included, but was not limited to: transcendental states, life changing realizations, improved inter and intra personal relationships; enhanced mental, physical, emotional, social, and/or spiritual function, as well as the healing and/or symptomatic reduction of biopsychosocial, emotional, social, and/or spiritual malady. P1 stated:

For me, the most profound was in the ice bath. I was sitting in the ice bath [...] I had some questions about what was going on sort of relationally at the time with me [...] and then probably for the next two or three minutes, and maybe it wasn't even that long, it just seemed like time stood still, for me, and I got some really profound knowings about what choices I was going to make relationally over the next, you know, couple of months, when I returned from Poland. I got real clarity around, you know, relationship with my wife got some real clarity around, you

know, I, it wasn't a big business decision, but we were looking at doing one thing in our business, and it was almost like, asked and answered, right, like, in that moment.

### **Examples of Transformation**

All participants experienced some degree of transformation as a result of practicing the WHM. This included: enhanced cognitive, physiological, neurological, social, and spiritual function; as well as improved inter and intra personal relationships, an altered life path, shift in worldview, and a healing and/or symptomatic reduction in malady. P8 detailed:

First, it feels like you're more awake, it feels like you're more alert, it feels like you're clearer in terms of clarity of thought [...] You're able to focus more [...] you're able to feel the bumps and bruises heal much more easily and your recovery time is cut a lot. So that was a huge notice. The other two things are, they're both like intertwined together, where how I slept and how I would wake up, and I would sleep deeper and I would wake up more refreshed [...] So, you know, so that the mental aspect was changed, the physical aspect was changed. And it also to, you know, starting your day like that or being able to go through that it definitely aids in compassion, you know, it definitely helps with patience, stresses aren't as stressful, you know, you start to retrain your neurology to deal with stresses much easier. So, there were many factors, there are many different areas that I would see beneficial results.

P4 reported:

And that really opened my eyes to like, oh, shit. So, my health is totally in my hands. And my mental well-being. So, I guess it did in one aspect heal a misconception I had, that the doctors were going to [...] take care of me. The insulin was going to take care of me. All these pills, were going to take care of me. And it may have healed that aspect of my mind that realized I need to take care of me for any of those things to have any effect.

### **Discrepant Cases and Findings**

Of the 10 participants, only one was not a certified WHM instructor. Of the 9 instructors, one was no longer holding workshops. The remaining 8 instructors were active in leading workshops and/or retreats; though this had become inhibited due to the global pandemic. One of the participants who went on to become an instructor, was not impressed with her first workshop. She had a positive experience, but her motivation for studying the WHM was to understand how Wim and his trainees had succeeded in the bacterial endotoxin study. She felt there was more to the method than what the original instructor had taught, in terms of accomplishing the aforementioned feat, and so attended the next available workshop led by Wim. Following which, she gained a deeper understanding and eventually chose to become a certified WHM instructor.

### **Summary and Transition**

I interviewed 10 participants regarding their experience with healing and meditation through the WHM. Nine of the 10 participants, were certified WHM instructors. Each participant reported a profound experience through the practice. This included, but was not limited to, a healing, transformative, and/or transcendental

experiences. Saturation of the data was achieved following interview of the seventh participant.

A narrative analysis of the data revealed 13 common themes. Participants' stories were contextualized into the following time frames: prior to, during, and following their practice of the WHM. The themes showed a positive outcome had occurred from the participants' practice of the WHM. Every participant reported continuing their practice following the WHM workshop. However, the frequency and duration of the practice varied per participant. At minimum, each participant utilized the practice as a coping strategy and/or biopsychosocial enhancement.

Chapter 5 examines the key findings and their relationship to the theoretical framework guiding this study. Limitations impacting the trustworthiness of the research are further detailed. Further, chapter 5 will provide recommendations for future research grounded in the strengths and limitations of this study, as well as any other relevant research recently discovered or explored in chapter 2. Next, the potential for this research to impact positive social change will be assessed. Chapter 5 will conclude by examining the central essence of this study.

## Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this qualitative study was to explore the experience of healing and meditation in practitioners of the WHM. The research was guided by transpersonal theory, and a narrative analysis design was used to guide the data collection and analysis process.

Ten participants were interviewed for this study. Structural and thematic analyses were conducted to organize, summarize, and interpret the data. Structural analysis revealed distinct positive changes in the participants prior to, during, and following their practice of the WHM. These changes were related to the biopsychosocial and/or emotional well-being of the participants. Thirteen themes were identified through thematic analysis. Many of these changes were reported as profound and transformative.

- Each participant reported experiencing some form of healing attributed to their practice of the WHM. This was related to their biopsychosocial, emotional, and/or spiritual well-being.
- Nine of the 10 participants became certified WHM instructors following their practice of the method.
- Every participant regarded the WHM as a useful stress management tool.
- All participants had a strong apprehension and/or dislike for cold immersion practices prior to beginning the WHM.
- Seven of the 10 participants reported a spiritually transformative or transcendental experience as a result of the practice. All profound experiences were preceded by a surrender/relaxation into the moment.



- Most reported positive changes in physical health; mental and/or emotional well-being; inter and/or intrapersonal relationships; and/or spirituality.
- All participants believed the WHM would serve as a benefit and useful tool in the lives of others.

One of the more profound instances was described by Participant #6, who, when contemplating suicide, incorporated the breathwork learned through the WHM to calm down and ground into the present moment, eliminating suicidal ideation. P6 reported:

It definitely helped me in those brief moments of where I thought, you know, there was no future for me, or there was the, you know, I didn't want to live in this world or things like that [...] there were definitely moments where I think I was going to end my life. And I didn't, because I had the moment to do the breath work [...] it gave me a clear head. And I'd be like, okay, okay, all right, settle down.

### **Interpretation of the Findings**

The results of this study reaffirmed much of the research previously discussed in Chapter 2. In essence, the results of this study are consistent with other results reporting that transcendental experiences can often improve life satisfaction of the experiencer (Sedlmeir et al., 2012; Kass, 2015). These experiences can affect all aspects of biopsychosocial and spiritual function: greater feelings of connectedness with a universal oneness, God, and/or the cosmos (Boorstein, 2000; Khoury et al., 2016); reduction in stress, leading to feelings of peace, compassion, and/or euphoria; and recognition of

oneself as separate from ego (Kass, 2015). Research indicated that transcendental experiences led to greater improvements in the following outcomes: nonattachment, mystical experiences, and psycho-spiritual well-being (Van Gordon et al., 2018).

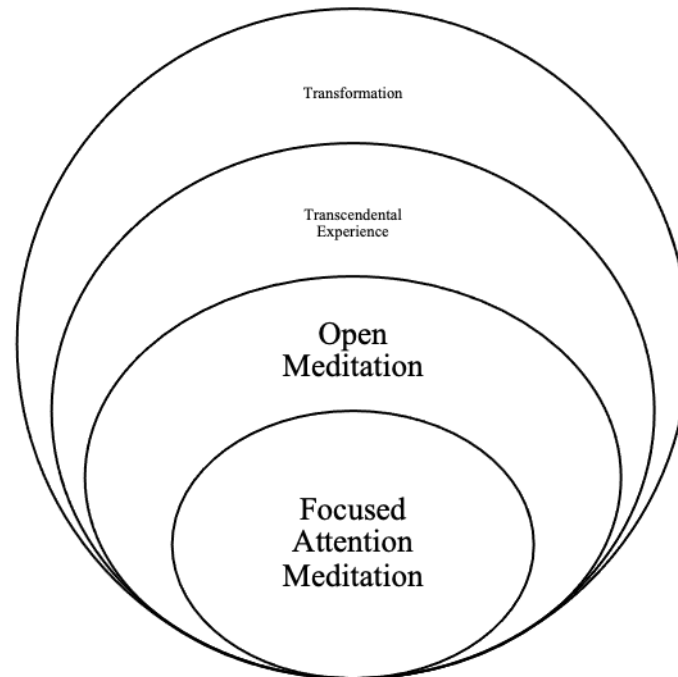
In this study, the described shifts in consciousness often led to a transformation in physiological, mental, emotional, social, spiritual, and/or occupational realms. For instance, all participants reported improvements in their interpersonal relationships after the WHM. Each participant also reported experiencing a deeper sense of calmness in their life, with a greater ability to cope with daily stressors. Further, all participants disclosed improved intrapersonal relationships. This included but was not limited to a more optimistic worldview; increased self-compassion; kinder inner dialogue; as well as an enhanced ability to recognize and alchemize negative self-talk. This is in alignment with the research which indicates that transcendental experiences often lead to positive psychological changes in the individual (Sedlmeir et al., 2012).

The WHM is composed of three pillars: breathwork, cold immersion, and mindset. Meditation is a key component of the method, and is often utilized through the aforementioned pillars. For example, P4 reported, “breathing is meditation.” P9 recognized, “that meditative state that I was looking for, that kind of parasympathetic, or you know, theta wave state of calmness, presence; I was able to easily find that during the breathing and also in the cold-water therapy.” Although the WHM does not directly state that it is incorporating meditation techniques, it utilizes both FAM and OMM techniques through the breathwork and cold immersion. For instance, when engaging in the hyperventilation technique, the practitioner is first instructed to focus on the inhalation

and exhalation throughout the body and entirety of its cycle. This is an example of FAM, which directs the practitioner to hone their focus on a single stimulus (i.e., the breath, sound, or an object), without judgment, desire, and/or expectation (Lutz et al., 2008). Once the hyperventilation repetitions have been completed, the practitioner is instructed to hold their breath as best they can for a specific duration of time. While engaging in the hold, the participant is then guided to engage in open monitoring meditation. Watching the mind, body, and emotions; and allowing them to move as they may in the fullness of each moment (Boorstein, 2000; Sedlmeir et al., 2012; Osho, 1976; Cahn & Polich, 2009). While entering an ice bath, the participants are again guided in FAM and OMM techniques. Practitioners reported experiencing transcendental states, both during the breathwork and/or cold immersion, once engaging in OMM techniques. This was often referred to as surrendering or relaxing into the moment. Participants reported being forever transformed as a result of the transcendental experience. Figure 2 shows the process by which a transformative experience occurred through various meditation techniques (FAM and OMM).

**Figure 2**

*Stages of Meditation Leading to a Transcendental and Transformative Experience*



Participants reported that various other factors positively impacted their experience of the WHM. Some of these reported perceived benefits resulted from receiving instruction in the physiological effects of practicing the method. For example, simply by performing the breathwork and cold immersion, participants are: oxygenating and carbonating their blood and muscle fibers; alkalizing the blood; as well as engaging their intercostal and large muscle groups. All of which would lead to the release of endorphins in the bloodstream. Participants also reported visualization, increased interoceptive abilities, competence and/or trustworthiness of the facilitator, and/or group dynamics to have influenced the psychological outcome of the method.

The hyperventilation and breath hold techniques of the WHM engage the sympathetic and parasympathetic nervous system (Zaccaro et al., 2018). Research

indicated that deliberate hyperventilation will release too much carbon dioxide, thereby narrowing the blood vessels and decreasing circulation of blood throughout the body and into the brain by 40% (Nestor, 2021). This reduction in blood flow to the brain's hippocampus and frontal, occipital, and parieto-occipital cortices are reported to induce profound hallucinations, as well as altering sensory and information processing functions (Nestor, 2021). P1 stated, "you almost trip over some sort of spiritual experience by the nature of the breath work."

Further, research has shown that the breath holds performed through the WHM may increase the carbon dioxide levels in the bloodstream. Carbon dioxide therapy, though rarely used today, has demonstrated an ability to treat patients with anxiety, schizophrenia, strokes, asthma, pneumonia, and, but not limited to, asphyxia (Hof, 2020; Nestor, 2021). Data suggests the carbonization of the blood enhances muscle endurance. Exemplified by P10, a former Marine, who reported that he increased the number of pushups he could perform in a row from the high sixties to over 150 his first time performing three rounds of the WHM breathwork. After 7-weeks that number increased to over 200 pushups in a row while still maintaining his original breath hold.

As 9 of the 10 participants were certified WHM instructors, each was well-versed in communicating the physiological and neurological effects of the method from a science-based lexicon. Although these participants would get excited communicating the science-based effects of the method, this did interfere with their ability to articulate the profound events that occurred through their first workshop experience. However, it should not be ruled out that this understanding may have a positive impact, or even

further enhance, the experience of the practitioner/instructor in future encounters (Myers et al., 2015; Shonin et al., 2014).

Participants reported a greater likelihood of a profound experience occurring in a group setting led by a trusted facilitator when first exploring the WHM. Participants explained that the facilitator and other group members provided a support system for them to surrender/relax fully into the moment. This eliminated any need to keep count of breaths or time in the water, as when engaging in these practices on their own. Further, the participants reported feeling safer to push past their limits in a group setting, crediting the readily available assistance should need be. Participants reported that facilitated group practices allowed them to move from their mind to their bodies into the present moment seamlessly. When the method was practiced individually, outside of a group setting, participants reported difficulty relaxing into their bodies and the present moment; as they were too mentally engaged monitoring pace, effort, repetitions, and/or duration.

WHM workshops provided a favorable environment for the practitioner to move from a FAM to an OMM practice while engaging in the WHM. FAM and OMM meditation practices activate various cortical regions of the brain, with OMM stimulating an increase in theta brainwave activity (Lippelt et al., 2014). Thus, allowing for greater blood flow into various cortices of the brain while performing the method (Cahn et al., 2009). Lippelt et al.'s research also indicated that theta brainwave activity is associated with higher connectivity to one's creativity, intuition, and/or spiritual awareness; and often accessed through spiritual practices such as prayer or meditation.

Participants also reported a great bond with the community that was formed with other practitioners of the WHM. P5 attributed the acceleration of her progress to performing the breathwork in a group setting. Stating, “there is a lot of power in community breathing, you know. And I think the reason why my journey accelerated as much as it has is because I genuinely think it's because of the community breathing.” Some even referred to the community as the fourth pillar of the WHM. P10 explained:

The other main thing that it's provided me with and I think it's, you know, the fourth, you know, hidden pillar of the Wim Hof Method, and it's, you know, the tribe community that Wim has created, and, you know, welcomed me into it wholeheartedly [...] he's created this community where it is, you know, okay, and it's a safe space where people can laugh and cry and yell and scream, and no one's gonna judge you, no one's gonna look at you funny. And so, it's beautiful, when you can see, you know, a group of people who come together.

### **Theoretical Analysis of Findings**

Transpersonal theory provided a framework for understanding how participants experienced their transcendental experiences through the WHM (Ferrer, 2011). In this model, transcending the ego was identified in the literature as a state of optimal human functioning (Boorstein, 2000; Khoury et al., 2016). A key concept of the framework indicates that acceptance and surrender to the experience provide a means to release attachment to one's preformed conceptualization of self. This was demonstrated according to the reports of the participants. Practitioners of the WHM reported numerous examples of feats of strength, healing, intuition, transformation, and endurance through

transcendence of their ego while functioning from a higher realm of consciousness. This realm of higher consciousness was often described as a feeling of oneness with the universe and/or God, interconnectedness with all of life, and/or instantaneous knowing outside of time, space, and/or thought. Participants further correlated their ability to reach this state of being, with their access to, and functioning from, the flow state (Moore, 2013; Swann et al., 2016).

As this study explored the experience of individual healing related to the practice of a specific modality; placebo theory served as a secondary theoretical orientation guiding this research. This explored the beliefs held by the participants prior to, during, and following the use of the method. Further, the participants' belief in the competence of the facilitator was revealed through narrative recollection of their experience. As many participants were originally skeptics of Wim Hof and the method, this suggests that the reported successful outcomes expand beyond what could be relegated to the placebo effect. Also, every participant reported continued use of the method following their participation in a WHM workshop; further indicating a value and usefulness to the practice outside the influence of an instructor. Placebo theory indicates that faith in the practitioner and/or the intervention are vital components when predicting the successful outcome of a treatment (Faasse et al., 2014). The majority of participants reported initial skepticism of Wim Hof and the method prior to trying it. P1, a former skeptic, addressed this possibility stating, "I don't care if it's the placebo effect, or the fact that I think it will work. It works for me."



As research indicates the breathwork and cold immersion create an immediate physiological effect in the individual, and therefore cannot be solely allocated to a placebo effect; it would still be of interest to assess the level of influence the placebo-by-proxy effect has in a group setting (Whalley et al., 2013). Relatedly, P4, another initial critic, addressed the ability of the WHM to serve as a quick biohack strategy for reaching a calm, meditative state as follows:

So, I just I follow that breath work. I've never been able to sit quietly. I've tried. I've tried after the Wim Hof Method. I can follow my breath. But I don't know I prefer doing the Wim Hof Method breath work to reach that state. That may be cheating in some people's eyes but dammit it works for me.

### **Limitations of the Study**

I used a narrative approach of inquiry. There were several limitations that should be considered when conducting any future research regarding the experience of healing and meditation in practitioners of the Wim Hof Method. First, the transferability of the study was limited as nine of the 10 participants were certified instructors of the WHM. Second, although this was a cross-cultural study, all of the participants currently resided in the United States. Two participants communicated that they were born and raised outside of the USA. Third, there was an inequality of female representation in the study. The sample consisted of two women and 8 men. Also, the study did not consider the educational background of the participants. Finally, the research did not explore the duration of time individuals practiced, and/or were certified instructors of the WHM.

Further, the dependability of the research was impacted through purposeful and snowball sampling in the recruitment of volunteers. Although it is not a certainty; these individuals are likely to have a proclivity to portray the WHM favorably. Research indicates that individuals are three times more likely to report a positive experience with a favorable brand, than they are a negative one (East et. al., 2007). Further, the certified instructors would have greater knowledge and experience of the method. However, the one participant who was not a certified instructor, still reported experiencing a healing as a result of the method. Finally, the credibility of the study was limited as the medical records of the individuals were not asked for or provided, thereby relying heavily on the trustworthiness of the volunteers.

### **Recommendations**

This qualitative study explored the experience of healing and meditation in practitioners of the WHM. The study highlighted the mental, physical, emotional, social, and spiritual benefits of the practice. Some benefits may be considered relevant across all spectrums of human activity. For instance, stress management will positively impact the neuro-biopsychosocial and emotional function of the practitioner.

I recommend further research exploring the qualitative experience of the individuals who have participated in the bacterial endotoxin experiment (Kox et al., 2014). Wim demonstrated an ability to train individuals in his method in under 10 days to influence their autonomic nervous system, produce adrenaline higher than that of a bungee jumper pre-jump, and fight off the fever and flu-like symptoms associated with the injection of the bacterial endotoxin better than that of the control group.

Understanding the lived experience of the participants in this study will provide greater insight into the cognitive and physiological processes of the WHM in the purposeful healing of a malady in real-time. Including, but not limited to, the potential for self-healing immune system responses. Future research should also include more women and individuals who are not certified WHM instructors. The research indicates that greater sensitivity and an ability to surrender are paramount in the amplification of the positive effects experienced through this practice. Research suggests that women are more likely than men to experience and express intense emotion (Kret & De Gelder, 2012; Barrett et al., 1998). Therefore, future research sampling more women would provide greater insight into the ease, applicability, and transformative power of the method to members of the general population. Future research would also benefit by seeking more volunteers outside of the United States, as different cultures are often regarded as having variant levels of emotional intelligence and sensitivity as compared to individuals born and raised in the States. Further, a closer examination into the percentages of female and male participants and certified instructors of the WHM would provide insight into the method's appeal across the sexes. If there is a noticeable preference, why does that exist. Also, a personality survey assessing a likelihood, and/or willingness to participate in various forms of meditation, including, but not limited to: the WHM, yoga, and/or mindfulness would provide guidance to recommending various methods to across a variety of personality types.

The current study revealed that the processes for maintaining one's composure while immersed in the cold became transformative tools the practitioners were able to

incorporate in other stressful life events. This included, but was not limited to, a realignment with the breath, acceptance of the uncomfortable emotion, and surrendering the need to control a stressful event's outcome. Through the practice, several participants were further able to distinguish between the pain and tangible danger of an uncomfortable experience. Providing for greater acceptance to that which was of no real physical threat. Given the transformative power of this practice, further research is recommended which explores participants' worldviews prior to, during, and following the practice of the WHM. Future quantitative research assessing personality type, educational background, and belief in the effectiveness of the practice prior to commencement of the practice would be beneficial in examining the usefulness and applicability of the WHM. Further, it is recommended for future research to assess the increased and/or diminishing returns of the WHM based upon frequency, duration, and expertise. Therefore, future research should also explore the longevity of the individual's practice.

The extensive work of James Nestor (2021) has provided great insight into the science behind various breathing techniques, including, but not limited to, the WHM. It would further be beneficial to research the effects of the WHM through the lens of a pulmonary research. This could help to correlate, and perhaps eventually even predict, the experiential outcome of a vast array of breathing techniques.

Finally, given its many benefits, future research is needed on the appropriate age to begin practice of the WHM. In Russia, Iceland, and Siberia children are exposed to the cold at an early age and it is suggested to strengthen the body's immune system. This

information came from several news sources, but has yet to be substantiated scientifically (BBC, 2013). In other research on children, year-long study of 100 children in the third grade found significant gain scores in reading skills, academic performance, and self-regulatory behavior after learning and incorporating pranayama breathing (deep breathing and alternate nostril breathing) techniques (Abha et al., 2014). Participants suggested that children are fine to engage in the breathing exercises, without the retentions. There is some research to support this idea, even suggesting that brief breath holds may still be beneficial for children as young as 8 years old (Nelson et al., 2021; Sessa, 2007). Future research would be helpful to investigate if the method is applicable to a younger population, while modifying some of its practices, such as the breath holds. Due to the body's rapid increase in oxygen from the breathwork, and the initial physiological and psychological shock of the cold immersion; greater research is needed into the appropriate age to begin practice of the WHM to experience its benefits, while preventing any negative outcomes to the young practitioner.

### **Implications**

The medical system in the United States is in dire need of reform (LiPuma et al., 2020; Porter, 2009). Cost has made access to this system and its medical advances difficult and divisive amongst the population (LiPuma et al., 2020). In 2012, over 54 million people in the US lived in families who had difficulty paying medical bills, often resulting in the foregoing of treatment (Baughman, et al., 2015).

The treatment of most ailments through Western medicine requires the patient to seek external remedy. This may include the ingestion of a pill, and/or partaking in a

procedure or therapy. The practitioners of the Wim Hof Method have demonstrated that they have the power and ability to positively influence their neuro-biopsychosocial and emotional well-being through the use of breath, cold-immersion, and/or meditation. The participants emphasized that their practice was simple and could be used by the majority of adults. This study demonstrated that the method is a useful tool in reducing the negative effects of stress; which is regarded as one of the leading causes of disease (Bostock et al., 2018). The research also indicates that the WHM serves as an excellent means for symptomatic reduction of malady, pain management, and the healing of emotional trauma.

Through narrative inquiry the following three components were considered while investigating the stories of the participants: interaction (personal and social); continuity (past, present, and future); and situation (place) (Clandinin, 2006). The participants came to study the Wim Hof Method through a personal choice resulting from the encouragement of an external catalyst. Curiosity and/or remedy to an ailment were the driving force influencing each participants' choice to explore the practice. They were made aware and/or encouraged to explore the WHM by family, friends, associates, advertisements, and/or information found on the internet. All of the participants reported hesitancy with at least some aspect of the cold immersion prior to beginning the practice. Many had doubts related to the authenticity of Wim Hof prior to meeting him. At which time, this immediately changed, and since; consider him a genuine, kind, loving individual, and hold him in the highest regard. All participants reported at least some positive biopsychosocial and/or emotional effect resulting from the practice. Further, all

participants reported continuing the WHM after being introduced to the method due to the many benefits of an ongoing practice. Each of the practitioners had participated in at least one, in-person WHM workshop facilitated by a certified WHM instructor.

In addition, the results of this study indicated the WHM provides a means to enhance one's life across a spectrum of human function. This included, but was not limited to: an increase in mental clarity and focus; greater access to the flow state; more compassion, openness, and empathy; improved social relationships; increased strength and endurance; positive self-talk and understanding; greater capacity to remain present in the moment; increase in interoception and control over one's physiological processes; improved ability to influence one's physiology; altered brainwave states resulting in a positive and/or transcendent experience; improved emotional regulation; and increased mental, physical, and emotional homeostasis.

As the prolonged consequences of the recent global pandemic are yet known, it is important for individuals to have a readily available means to remain calm in stressful situations. The WHM provides practitioners with a sense of community and belonging, as well as practices for well-being. Thereby, reducing feelings of isolation and expanding their social support network.

Not only did participants describe a reduction of malady; the WHM was reported as an excellent means for enhancing one's neuro-biopsychosocial and emotional function. Providing a readily available means for any individual interested in improving their health, strength, endurance, and/or holistic well-being. As P10 detailed, "from a strength and conditioning perspective, you know, you tell an athlete, you can give them a 1%

gain, and that's, you know, the difference between first place and seventeenth place in the Olympics. That's huge.”

Specifically, this study may add to the current body of knowledge by providing further insight into healing and meditation in practitioners of the WHM using transpersonal theory. The benefits in understanding the transcendental experiences of the practitioners brings to light the need for further research into the capacity, benefits, and abilities of human function beyond an egoic state. The research indicates it is from here, that peace and a deeper understanding of our interconnectedness is experienced.

### **Conclusion**

The rising cost of healthcare, corruption of the medical system, greater reliance upon pharmacology, and risks of its prolonged use in the treatment of illness have inspired individuals to look elsewhere for their well-being. Participants were led to the WHM for a variety of reasons. This included but was not limited to: curiosity; the treatment of malady; and/or the enhancement of their biopsychosocial function. All participants reported experiencing some form of healing through the WHM. However, several quickly clarified that their healing was better understood as a symptomatic reduction. Meaning, that if they were to cease their practice, the condition would return. This was often related to illnesses associated with inflammation, as it is reported that the method serves as an excellent means to reduce inflammation.

All participants continued their practice following the workshop. Using the breathwork and/or cold immersion as readily available tool to regulate their mental and/or emotional well-being. Nine of the 10 participants enjoyed the practice so much, they



chose to become certified WHM instructors. The tenth participant was already serving as a yoga and Pilates instructor. The majority of participants further reported spontaneous healings occurring through the method. For instance, at one workshop a participant found answers that led to the healing of his relationship with his wife. Another participant had suffered a debilitating sciatic flare for well over a month. This was instantly healed after a single session in an ice bath. Another healed an unbeknownst issue with his toxic masculinity.

Each profound experience was prefaced by a common theme: surrender. This surrender was explained as a relaxation into the moment. The cathartic nature of the WHM encourages participants out of their minds and into their bodies; connecting deeper into their primal nature. Participants reported that the increased interoceptive abilities gained through practicing the method, allowed for deeper releases of debilitating thoughts, feelings, and experiences stored in their physical and emotional bodies. When released, participants reported greater feelings of peace and euphoria; often accompanied by profound realizations. What was found, transformed the lives of every single participant. For some, it was God or universal oneness. Others developed a greater sense of compassion and understanding for those around them. While all of them found an undeniable strength and faith in themselves that had previously lain dormant.

Participants reported an ability to positively alter their mental, physical, and/or emotional well-being through conscious breathing. It is recommended that future research assess the biopsychosocial impacts of the WHM with younger participants, and determine at what age is appropriate and ideal to begin this practice. This study supports

the current literature exploring the benefits of meditation on the holistic function of the individual from a transpersonal lens. Further, this research echoes the wisdom proffered by mystics, monks, tribes, and shamans for ages. All change begins from within, and it begins when all humans learn to become comfortable in our discomfort and surrender/relax into the here and now. Although there are infinite paths leading into this moment, Wim has devised a method that is readily available and accessible to everyone, anywhere in the world. Breathe. For how we breathe, is how we live.

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## Appendix A: Informed Consent Letter

You are invited to take part in a research study of healing through the Wim Hof Method. The researcher is inviting individuals who have experienced any kind of healing through the Wim Hof Method to be in the study. This form is part of a process called “informed consent” to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Chad McKinney, who is a doctoral student at Walden University.

### **Background Information:**

The purpose of this study is to understand the experience of the individual healing themselves through the Wim Hof Method.

### **Procedures:**

If you agree to be in this study, you will be asked to:

- Have a readily available internet connection and participate in a single, one hour interview through video conference.
- Participants will then be asked for their feedback regarding the accuracy of the interviewer’s synopsis.

Here are some sample questions:

1. Tell me about how you came to study the Wim Hof method.
2. Tell me about your training experience with the WHM.
3. Tell me about what happened after you completed the training.

### **Voluntary Nature of the Study:**

This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. No one at the Wim Hof Group or Walden University will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time.

**Risks and Benefits of Being in the Study:**

Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue, stress, or becoming upset. Being in this study would not pose risk to your safety or wellbeing.

Participating in this study provided a much needed, and deeper understanding into the experience of healing through the Wim Hof Method.

**Payment:**

To ensure willful and unbiased participation, participants will not be provided with gifts or payment.

**Privacy:**

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by encryption and password protection. Further, hard copies of the data will be stored in a lockable safe, accessible only to the researcher. Data will be kept for a period of at least 5 years, as required by the university.

**Contacts and Questions:**

You may ask any questions you have now. Or if you have questions later, you may contact the researcher via +1 (619) 634-3566 and/or [chad.mckinney@waldenu.edu](mailto:chad.mckinney@waldenu.edu). If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210 (for US based participants) OR 001-612-312-1210 (for participants outside the US). Walden University's approval number for this study is 08-31-20-0544304 and it expires on August 30th, 2021. Please print or save this consent form for your records. (for online research)

**Statement of Consent:**

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By replying to this email with the words, "I consent", I understand that I am agreeing to the terms described above.

## Appendix B: Invitation to Participate

**Invitation Flyer** (will be posted at meetings, and distributed to potential participants via paper and electronic form by the Wim Hof Group, who have agreed to serve as a distribution channel. This flyer will also be posted to the Wim Hof Method private group on Facebook which has over 151K active members):

You are invited to take part in a research study seeking an understanding into the experience of healing through the Wim Hof Method. The researcher is inviting men and women ages between 18 and 65, who have experienced a healing as a result of the Wim Hof Method. This is a dissertation study which is a requirement towards earning a doctoral degree at Walden University.

This will be an informal interview with the researcher, where the participant will tell their experience with healing through the Wim Hof Method. This will be a one-time interview, lasting no more than an hour. If you are between the ages 18 - 65, and have experienced a healing through the Wim Hof Method, and would like to participate, please contact Chad McKinney by phone (619) 634-3566 or email [chad.mckinney@waldenu.edu](mailto:chad.mckinney@waldenu.edu).

## Curriculum Vitae

**Chad D McKinney**

815 Diamond St • San Diego, CA 92109  
 (619) 634-3566 • chad.mckinney@waldenu.edu  
<https://www.linkedin.com/in/chad-mckinney-95a84a4a/>

**Summary Of Qualifications**

- Educator, nonprofit manager, coach, and mentor with over 15 years of experience in child and adult learning environments.
- Knowledge areas include psychology, sociology, philosophy, fundraising, as well as community organizing and development.
- Designed, implemented and managed community programs that focused on education and/or rehabilitation with at-risk youth and adult populations for over 8 years.
- Skilled in Learning Management Systems such as Blackboard, Canvas, SPSS, Zoom, Sales Force, My Taskstream, MyDr, Photoshop, Audition, Premiere Pro, Microsoft Office, APA formatting

**Education**

<b>Doctor of Philosophy in Psychology</b> Specialization in General Teaching Walden University, Minneapolis, MN	Expected 2022
<b>Master of Science in Counseling/Marriage, Family, and Child Therapy</b> University of Phoenix, San Diego, CA	2010
<b>Bachelor of Science in Psychology</b> Minors in Sociology and Philosophy Illinois State University, Normal, IL	2004

**Certifications**

Professional Certificate in Fundraising and Development

**Teaching Experience**

<b>Southwestern College</b> San Diego, CA Teacher	2021-Present
<ul style="list-style-type: none"> <li>• Developed and implemented a college bound general psychology course for San Ysidro High School.</li> </ul>	

<b>Chance for Hope, Inc.</b> San Diego, CA	2006-2014
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Nonprofit organization

Teacher

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Facilitated coursework for underserved populations (15 – 60 y/o) focused in psychology. Courses included: introduction to psychology, emotional regulation, job skills, mindfulness, life satisfaction, and optimal performance.

**Ota English School** Gunma, Japan

2005-2006

Language and business school

Teacher

- Developed and implemented a business English curriculum to Subaru, as well as a variety of classroom sizes, ages, and varying levels of proficiency.

### **Additional Experience**

Curriculum Consultant, Bright Future Learning, Guangzhou, China	2021-Present
Coach, One Love Holistic Health, San Diego, CA	2014-Present
Director of Operations, Dry Start, San Diego, CA	2016-Present
Founder & Director of Operations, Chance for Hope, Inc. San Diego, CA	2006-2014

### **Workshops Delivered**

Mindfulness & the Flow State, Pacific College of Health and Science	Sept, 2019
Tantra and Human Sexuality, City College, San Diego, CA	July, 2016
Optimal Human Performance, Palomar High School, San Diego, CA	April 2014
Holistic Health & Life Meaning, Lincoln High School, San Diego, CA	Nov, 2013

### **CONFERENCE PRESENTATIONS**

McKinney, C. (2021, May). *Dissertation Process*. Advisor Panel at Walden University Colloquium, Residency 4, online.

McKinney, C. (2012, April). *Life Satisfaction Through Community Involvement*. A presentation at the San Diego Chamber of Commerce, San Diego, CA.

McKinney, C. (2011, January). *Collaboration and Green Technology in Reducing Homelessness*. A presentation at the San Diego Downtown Partnership, San Diego, CA.

### **PUBLICATIONS**

McKinney, C. (2021). "The experience of healing and meditation in practitioners of the Wim Hof Method". (in progress).

McKinney, C. (2021). *Heaven in the now: A journey through mind, body, & soul*. One Love Publishing.

**COMMUNITY INVOLVEMENT**

Manager & Program Developer, Labor to Recovery Program, C4H	2009-2014
Mentor & Program Developer, Youth Empowerment Program, C4H	2009-2014
DOO, Community Garden Program, C4H	2011-2014

**PROFESSIONAL AFFILIATIONS**

Member, Society for Police and Criminal Psychology	2021-Present
Member, American Association of Marriage and Family Therapy	2010-Present
San Diego Chamber of Commerce	2006-Present
Steering Committee, San Diego Reuse and Repair Committee	2012-2014

**PROFESSIONAL DEVELOPMENT**

Operational Considerations	2021
Stress and Wellness Related Issues	2021
Diverse Thinking in Industrial Organization Psychology	2021
Treatment/Intervention Considerations	2021
Considerations in Police and Public Safety Selections	2021
Trauma Intervention	2021
Threat Assessment	2021
Crisis Response	2021
Advancements in Protective Services Assessments	2021
Research Dissemination, Walden	2021
Qualitative Interview Strategy and Methodology, Walden	2021
Qualitative Data Analysis, Walden	2020
Secondary Data Analysis, Walden	2020
Adobe Premiere Pro, SDCC	2020
Adobe Photoshop I, SDCC	2020
Adobe Photoshop II, SDCC	2020
Argument Development, Walden	2018
Designing Research Study, Walden	2018
Conceptualizing Qualitative Studies, Walden	2018
Developing a Literature Review Plan, Walden	2018
Navigating Blackboard, Walden	2014
Professional Certificate in Fundraising and Development, UCSD	2012