

**THROUGH THE EYES OF SHE: EXPLORING WOMENS' STEWARDSHIP
AND CONNECTION TO NATURE USING MINDFULNESS AND PHOTO
ELICITATION IN NEWFOUNDLAND AND LABRADOR PARKS AND
PROTECTED AREAS**

by © Laura Bass A Thesis submitted

to the School of Graduate Studies in partial fulfillment of the

requirements for the degree of

Master of Science in Kinesiology (Socio-cultural studies of physical activity and health)

Memorial University of Newfoundland

March 2022

St. John's, Newfoundland and Labrador

ABSTRACT

Urbanization contributes to a collective disconnection from nature and an increase in mental health-related illnesses. Women were chosen as the focus for this research, as they suffer disproportionately from anxiety, depression, phobias, and experience comorbidity of conditions. It is well established that spending time in nature is beneficial for an individual's overall well-being. This study aimed to determine the mental health benefits of practicing mindfulness in nature, and the influence of mindfulness on stewardship for women in Newfoundland and Labrador Parks and Protected areas. This qualitative research used a framework of feminist narrative inquiry to explore ten women's stories from parks and nature-based experiences using their photographs. Drawing on the influences of Attention Restoration Theory, shinrin-yoku, and mindfulness, this research used photo elicitation and semi-structured interviews to explore natural features that provoked feelings of mindfulness. Gender issues influence women's experiences in the outdoors. Barriers and facilitators to participation were explored through the sharing of lived experiences. Feelings of fear, the ethic of care, and financial and time constraints were prominent barriers, while participation was facilitated by relationships and community, empowerment, and green exercise. Practicing mindfulness in natural spaces influenced feelings of deeper connection and environmental stewardship.

Keywords: stewardship, parks, mindfulness, mental health, women, barriers, green exercise, photo elicitation, ecofeminism, attention restoration

GENERAL SUMMARY

This thesis investigated the mental health benefits of practicing mindfulness in parks and protected areas in Newfoundland and Labrador. The relationship between our collective disconnection from nature and the increase in mental health-related illnesses was also explored. Mindfulness is an effective way to establish a connection to nature and increase actions of pro-environmental behaviour and feelings of stewardship. Nature-based mindfulness tools such as Attention Restoration Theory and shinrin-yoku were used as a framework for this study. Using mindfulness can deepen feelings of nature connectedness and bridge the gap between taking care of our own personal health and well-being, as well as the environment. This research and other literature reviewed suggested that the further we distance ourselves from nature, the more our environmental and personal health is at risk. Women were chosen for this study as they experience higher occurrences of mental health-related illness and barriers to participation in nature-based leisure.

ACKNOWLEDGEMENTS

I respectfully acknowledge the land that we gather and explore on as the unceded and traditional territory of the Beothuk and Mi'kmaq, as well as the ancestral homelands of the Innu of Nitassinan and the Inuit of Nunatsiavut and NunatuKavut. May we work toward respectful stewardship, collective healing, and reconciliation.

This work would not have been possible without the guidance and expertise from Dr. TA Loeffler. Thank you for your patience and invaluable advice during this journey. Your kindred snow globe spirit, visualizations, and the ability to guide me right back to center are deeply treasured. Thank you to Dr. Anne-Marie Sullivan for your support, advice, and humour along this journey. Thank you both for believing in me and providing opportunities to help me keep growing and learning.

I am grateful to my mother and father for their dedication to their life's work; an influence and inspiration to help others, for their unwavering love and support, and for always believing in any winding path I choose. Your support means the world.

I would like to thank my fellow graduate students for the support, advice, and company throughout this journey and to my dear friends CN, FK, and JH for your friendship, insight, advocacy, and strength—you inspire me.

To women who get out despite the barriers and women who are still held back, I see you. To those who support and advocate for women and the marginalized- thank you. Thank you to the participants of this study for your trust and your vulnerability.

And finally, I am grateful for this beautiful land in which I've found solace between the ocean and the tuckamore.

“There's really no such thing as the 'voiceless.' There are only the deliberately silenced or the preferably unheard.”

-Arundhati Roy

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CHAPTER ONE: Introduction

It is widely believed that humans have a deeply intrinsic connection to nature. This connection is supported by Indigenous traditional ecological knowledge, and more modernly, the biophilia hypothesis. The biophilia hypothesis suggests that we are profoundly connected to nature on an evolutionary and biological level (Wilson, 1984). Other research suggests that this connection is so deeply embedded in humans because we are designed to be part of nature, and therefore, it is critical to our overall health to maintain this connection (Lee et al., 2012; Mantler & Logan, 2015; Schutte & Mlouff, 2018). Through evolution and urbanization, we have become more and more disconnected from the natural world we were once rooted in (Mayer & McPherson Frantz, 2004; Nisbet & Lem, 2015). We have made significant advancements in technology that, in many ways, have made our lives more convenient, but as a result, they have caused us to move further away from natural cycles and ways of living (Annerstedt & Wahrbord, 2011). A significant portion of our population has moved into more densely populated areas set apart from natural settings and greenery. As a collective, we spend most of our time indoors (Bratman et al., 2015; Mayer & McPherson Frantz, 2004). Some may argue that we are addicted to technology and, as a result, spend most of our time in front of screens due to work, school, and leisure, which propels us to continue to lose our connection to nature (Maller et al., 2009). As a result of this disconnection, mental health-related symptoms have come to the forefront as increased screen time has left us anxious and depressed and has been contributing to brain fog, mental fatigue, and a lack

of physical activity (Mayer & McPherson Frantz, 2004; Swami et al., 2020; Ulrich et al., 1991; Yu et al., 2017).

Mental health-related illnesses affect the quality of life for many individuals in Canada (Statistics Canada, 2021; World Health Organization, 2000). A significant portion of this population is women, and that number continues to rise (Barton et al., 2016; World Health Organization, 2000). We know now that mindfulness is a tool that can help to alleviate some of the symptoms experienced by those struggling with mental health-related symptoms (Kabat-Zinn, 2015; Olson et al., 2020). Further to this, practicing mindfulness in nature is also an impactful way to benefit an individuals' mental health and well-being. Practicing mindfulness is about drawing one's awareness to the present moment through focusing on the senses and the natural world around them (Kabat-Zinn, 2015; Olson et al., 2020). Mindfulness can be an intentional practice or a passive benefit. For example, sitting in nature to be still and practicing meditation through breathing techniques is one common method. Another is through forest bathing, or shinrin-yoku, where one spends time in nature to passively notice what's happening around them. Thirdly, green exercise is a way that many people experience mindfulness in nature by focusing on the task at hand and experiencing embodiment through physical exertion. Green exercise is the act of partaking in physical activity while being immersed in a natural setting (Pretty et al., 2005).

Nature-based mindfulness is also a powerful way to combat symptoms of anxiety, stress, and depression (Gabrielsen & Harper, 2018; Hansen et al., 2017). Many studies have shown that simply viewing photographs of nature and natural scenes positively

impacts our psyche (Ulrich et al., 1991). Physically spending time in nature has an even more positive impact and practicing mindfulness in nature deepens the benefits even further (Olson et al., 2020; Tracey et al., 2018). It is becoming more apparent that nature-based mindfulness and positive mental health attributes are deeply connected (Barbaro & Pickett, 2016).

As we continue to grow and advance in technologies, it seems the evolutionary divide between humans and nature is getting deeper. Although many cities are beginning to consider the benefits of bringing green into urban landscapes, access to parks and protected areas are becoming less convenient. As we become more conscious about nature's benefits, it is also crucial to consider the longevity and well-being of the natural spaces we spend time in. Without continued protection of our natural spaces, they are at risk of being degraded or lost (Wright & Matthews, 2014). This relationship can be mutually beneficial, but there is more work to be done. To continue receiving the positive mental health benefits of spending time in nature, we need to protect it. As Louv (2012) states in his work, we can't protect what we do not understand or appreciate. Barbaro and Pickett (2016) also suggest that individuals who practice mindfulness in nature are more likely to have feelings of pro-environmental behaviour.

1.1 Biophilia

Many researchers believe that there is an inherent interconnectedness between people and nature. Wilson (1984) coined the term biophilia to describe this innate "emotional affiliation of human beings to other living organisms" (p.31). Lee et al. (2012) suggested that the further we distance ourselves from natural experiences and

features, the more our mental health and wellness suffer. Mayer and McPherson Frantz (2004) found that personal well-being positively correlates with feeling connected to nature. Collectively, these studies support the belief that the human-to-environment relationship is critical for well-being and overall health.

Feelings of being connected to nature can cause more significant concern for nature (Newman et al., 2018). Thus, strengthening our connection to nature can be seen as mutually beneficial (Olson et al., 2020). Louv (2012) poetically describes the importance of stewardship and the innate connectedness that we have with nature, “We cannot protect something we do not love, we cannot love what we do not know, and we cannot know what we do not see. Or hear. Or sense” (p. 104). This thesis explores our increasing urbanization and disconnection from nature, the mental health benefits of spending time in nature, the role parks play in creating community and promoting health, the benefits of mindfulness on mental health, and gender-related barriers and facilitators of nature experiences.

1.2 Parks

Parks and green spaces have a long history of providing value through health and wellness benefits for users. In the early 1900s, parks and protected areas were viewed as sacred spaces, places of refuge in modern-day society, and a place to enhance and promote physical, mental, and spiritual health (Newman et al., 2018; Powch, 1994; Wright & Matthews, 2014). Improved attention restoration, increased physical activity, and a sense of spiritual renewal are benefits people who use parks can experience (Kaplan, 1995; Newman et al., 2018). Parks also offer a health service value; they can

help mitigate feelings of stress and anxiety. Individuals who visit parks more frequently in early life are more likely to continue throughout adulthood, making it essential to foster meaningful experiences through building a connection with nature early on (Buckley et al., 2019). The outcome is two-fold; such a connection can benefit mental well-being and help promote stewardship to protect biodiversity through further conservation and nature appreciation. It can help to strengthen bonds within the community and connection to place (Wright & Matthews, 2014).

Whether urban or natural, the physical environment impacts an individual's behaviour, mental state, and overall health and well-being (Bratman et al., 2015; Mayer & McPherson Frantz, 2004). Depending on the state of the environment, an individual's surroundings can positively or negatively correlate with their health. For example, research shows that connection to nature results in more positive health outcomes, and inversely, the more disconnected, or the more integrated a person is into an urban setting, the more negative health impacts are evident (Mayer & McPherson Frantz, 2004; Ulrich et al., 1991). Pretty et al. (2005) has indicated that time spent in nature can help manage existing stress levels and prevent future stressors from having negative health consequences. Time spent in nature can help concentration levels and improve mental clarity (Ray & Jakubec, 2014). Although it is a burgeoning area of study, it is evident that the existence and usage of parks and natural areas are critical to our overall health and well-being as a species.

1.3 Nature-based Leisure

Nature-based leisure can positively influence women's mental and physical health, self-esteem, feelings of empowerment, and connectedness to others (Henderson & Allen, 1991; Pohl et al., 2000; Powch, 1994). Outdoor recreation also challenges gender stereotypes (Henderson & Allen, 1991; Pohl et al., 2000). In their article, Pohl et al. (2000) identified outdoor recreation as a way that women can discover their sense of self through experiencing personal empowerment, self-reliance, and an improved sense of body image. Nature-based experiences also provide opportunities for women to step outside of the social norm and try something that they otherwise may feel limited in. Henderson (1996, p.196) informs that, "In nature, conformity to traditional female roles is not required. In the outdoors, women often discover aspects of themselves that they did not know existed prior to challenging themselves in this environment."

1.4 Background and Rationale

It appears that mental health-related illnesses have risen in recent years. Evidence suggests that increasing urbanization and lack of nature exposure could be contributing factors (Bratman et al., 2015). The physiological and psychological benefits of spending time in nature have been studied and advocated for decades. Kaplan and Talbot (1983) were leaders in investigating the restorative effects that spending time in nature has on mental health and well-being. In 1995, Kaplan created the Attention Restoration Theory, which frames much of the research on nature and mental health restoration today. Similarly, Hartig et al., (1991) investigated the mental health benefits of time spent in the wilderness. Ulrich (1984) proved that simply viewing nature compared to an urban environment could profoundly affect the healing time of individuals in hospitals. As a

result of this information, interventions using nature therapy have shown therapeutic outcomes in many populations (Kamitsis & Simmonds, 2017; Park et al., 2001; Poulsen et al., 2018; Swami et al., 2020). Mindfulness, however, is a newer concept in the mental health field that could benefit from further research. With this in mind, I explored the effects of incorporating the practice of mindfulness in a nature-based setting, similar to the method of shinrin-yoku, for adult women in National and Provincial Parks in Newfoundland and Labrador. This research used a gendered lens to investigate the impact of practicing mindfulness and women's connection in three contexts: connection to self through mental health, connection to community, and connection to nature through feelings of stewardship. Previous research has suggested that all three components are intertwined, and therefore I believe they are essential to consider holistically.

In their research, Rogers and Rose (2019) investigated gender norms and highlighted that outdoor experiences are often male-dominated. By using photo elicitation, my goal was to give women a different voice to share their experiences. Wang and Burris (1994) describe photovoice as a method "by which people create and discuss photographs as a means of catalyzing personal and community change" (p. 175). I used the photo elicitation process with participants during semi-structured interviews to investigate social influences and barriers that impact women's access to nature. The findings can inform decision-makers, stakeholders, and social organizations to address barriers to accessing nature for this demographic.

A wealth of literature supports nature-based therapy as beneficial for individuals in various domains. My research investigated these benefits and was centered around

“nature experiences” rather than the traditional definition of “therapy.” The literature cited regarding “nature therapy” supports physical and mental health benefits for a less structured or targeted intervention.

1.5 Research Question and Objectives

Deeper connections to nature are beneficial for both individuals and the environment (Olson et al., 2020). Increased feelings of connection can foster more powerful feelings of stewardship (Capaldi et al., 2014). With increased feelings of stewardship and pro-environmental behaviour, perhaps more awareness can be created around nature-based opportunities for women, including better access and addressing and eliminating barriers. Practicing mindfulness in natural spaces through traditional means and shinrin-yoku (forest bathing) has been shown to positively impact an individual’s mental health (Hansen et al., 2017; Olson et al., 2020; Yu et al., 2017). I examined the connections between nature experiences, mindfulness, mental health, and stewardship for women in Newfoundland and Labrador using the following research question: “What is the influence of mindfulness practice in nature on mental wellness and environmental stewardship?” In answering this question, the following sub-questions were also addressed:

1. What are the perceived mental wellness outcomes after practicing mindfulness in natural areas?
2. How do participants understand their connection to nature through practicing nature-based mindfulness?
3. How does using mindfulness in parks influence a sense of community or a deeper connection to the place?

4. What are the barriers that women experience in being able to access/spend time in nature?

Each of these questions contributed to a greater understanding of the interconnection between mental health, stewardship, and barriers that affect women in Newfoundland and Labrador Parks and Protected areas. The following chapter discusses the influence of nature on mental health, the impact of urbanization on our collective health and growing disconnection from nature, the history, role and importance of parks, barriers that women face in accessing nature-based leisure, and benefits of mindfulness for mental health. This review outlines my interpretation of their holistic connection.

CHAPTER 2: Literature Review

In this literature review, I outline the role of nature and health and the increasing urbanization and disconnection from nature that we face as a society. I have introduced the role of and importance of parks and how they are a cornerstone in creating intentional community, and how this connects with pro-environmental attitudes and feelings of environmental stewardship. Then, I have discussed mental health, the benefits of practicing mindfulness, and the benefits that nature offers in both domains. Finally, I explored why it is important to consider women in this type of research.

Over the past few years, the social stigma towards mental health has become less prominent and is becoming more acceptable to talk about. Because of this, we are learning that many people experience challenges with their mental health and that women suffer disproportionately from mental health-related illnesses (Barton et al., 2016; Kessler et al., 1994; World Health Organization, 2000). In Canada alone, in 2020, 1,809,200 women reported having a mood disorder (Statistics Canada, 2021). Women tend to suffer more commonly when compared to men, from depression, anxiety, and comorbidity of mood disorders (Statistics Canada, 2021; World Health Organization, 2000). Much of the literature states that the method of practicing mindfulness can contribute to improved feelings of mental health and well-being, and others say that nature can positively influence our overall well-being. To understand the benefit of integrating the two, I investigated the role of practicing mindfulness in nature on feelings of stewardship. Finally, I reviewed the benefits of using photo elicitation for this research. While there has been much research on connection to nature and the role of mindfulness, few

researchers have considered the impact of mindfulness on feelings of stewardship for women, specifically. When I started my literature review, I searched using the terms: mindfulness, nature therapy, mental health, photo elicitation, and women. To get more specific, I used terms including stewardship, gender-related barriers, shinrin-yoku, forest therapy, and outdoor recreation. I reviewed over 300 articles but chose 91 that were the most appropriate for my research. Articles that focused primarily on physical health benefits of outdoor recreation and topics focused on mixed-gender or males were excluded. I included articles that were qualitative and quantitative.

2.1 Nature and Health

Connection to nature is critical for our overall health and well-being, as humans are wired to be part of nature (Schutte & Mlouff, 2018). Spending time in nature has been shown to have a multitude of health benefits, including physical, social, and psychological factors, an overall positive affect and satisfaction, as well as restorative effects on the body and mind (Hartig et al., 1991; Howell et al., 2013; Kaplan, 1995; Mayer & McPherson Frantz, 2004; Schutte & Mlouff, 2018; Ulrich et al., 1991). Mantler and Logan (2015) found that life satisfaction and overall vitality resulted from being more connected to nature. On the contrary, a lack of connection to nature was found to cause feelings of anger and anxiety in individuals (Bratman et al., 2015; Gabrielsen & Harper, 2018). Over the past few decades, research has proven there is a link between an individual's health and their environmental health, and as a result, nature-based therapies were created (Franco et al., 2017; Hart, 2016; Jung et al., 2015).

Because of the therapeutic qualities natural features have, natural environments can be effective for therapeutic intervention (Kamitsis & Simmonds, 2017; Park et al., 2001). Nature-based therapy aims to rehabilitate or treat individuals suffering from illness, disease, or chronic health conditions (Annerstedt & Wahrbord, 2011). Hansen et al. (2017) describe nature-based therapy as "a set of practices aimed at achieving 'preventive medical effects' through exposure to natural stimuli that render a state of physiological relaxation and boost the weakened immune functions to prevent diseases" (p. 853). Nature therapy is increasingly recognized as preventative medicine (Hart, 2016).

Past research has focused on the mental wellness benefits of nature in general, but there is a gap regarding mindfulness and gender in nature. This area of research is vital to explore further because if there is a correlation between time spent in nature and benefits to mental wellness, action can be taken to alleviate symptoms for women who struggle. The possibility of nature therapy becoming a mainstream therapeutic option for depression, anxiety, and other mental health conditions can potentially help many people. There is also substantial evidence that mindfulness is a helpful tool in supporting mental health and well-being, but limited research for women practicing mindfulness in natural spaces.

Strengthening the bond with parks and natural areas can also help develop feelings of stewardship. Mayer and McPherson Frantz (2004) argued that "if people feel connected to nature, then they will be less likely to harm it, for harming it would, in essence, be harming their very self" (p. 512). Barbaro and Pickett (2016) found that practicing mindfulness deepened experiences and could change or influence an

individual's behaviour. Additionally, they found that people who practiced mindfulness had a deeper connection to nature and tended to practice pro-environmental behaviour while simultaneously minimizing negative impacts to self and environment. Additionally, using mindfulness in nature led to a stronger feeling of connectedness to nature.

Experiences shared among others in nature can help foster feelings of community, kinship, connection, and belonging while improving overall psychological well-being (Wolsko & Lindberg, 2013). Connecting these pieces may serve as an integrated approach in supporting mental wellness while building strong connections and support for parks and protected areas. Olson et al. (2020) support the notion that practicing mindfulness in nature can help to strengthen the bond with our environment. They state that "[s]upporting mindfulness in nature will result in a symbiotic relationship that is beneficial to both human well-being and nature, rather than destructive of both" (p. 10).

2.2 Nature as Therapy

Nature therapy works to address the detachment from nature we are experiencing as a society. It emphasizes that our current lifestyle as a collective does not support a connection to our natural environment (Berger & Tiry, 2012). Nature therapy is a collection of activities, practices, and techniques that focus on building the relationship between an individual and the natural environment through two types of connection: passive and active (Kamitsis & Simmonds, 2017). Passive connections include enjoying nature for aesthetic appreciation, while active activities include horticultural therapy, wilderness therapy, and animal-assisted therapies. Both passive and active modalities have successfully produced positive health outcomes compared to human-made and have

proven to positively affect psychological health (Kamitsis & Simmonds, 2017). Nature-based therapy interactions have shown to be therapeutic and preventative, claiming restorative effects both physiologically, emotionally, mentally, and spiritually (Park et al., 2001; Swami et al., 2020). Interactions with nature can help stimulate attention span and cognitive function, increase feelings of relaxation and positive emotions, and may assist in a quicker recovery for those who may be ill (Jung et al., 2015; Swami et al., 2020). Using aspects of the natural environment can help reduce symptoms of attention disorders, anxiety, and depression (Kamitsis & Simmonds, 2017).

Park et al. (2001) found that mindfulness techniques using visual, olfactory, auditory, and tactile senses helped solidify connection to nature and others and increase our capacity for understanding. Other research suggests that using the principles of mindfulness through a deeper relationship with our five senses can help to improve our connectedness to nature (Franco et al., 2017). Park et al. (2001) demonstrated that simply smelling the oils from the bark in the trees had a calming effect on participants and effectively lowered their blood pressure.

Socially, time spent in nature can help individuals feel like part of a community and increase feelings of belonging (Hawkins et al., 2016). This type of leisure can also help establish and foster interpersonal relationships through building meaningful connections (Tracey et al., 2018). An individual's sense of identity can often be compromised when mental health concerns are forefront. Time spent in nature can help bridge the disconnection to self and strengthen a person's sense of self by embracing

creativity and imagination while focusing on emotions and the physical body (Berger & Tiry, 2012; Burls, 2007).

Hart (2016) found that spending time in nature by walking through a forested park helped lower blood pressure, stress hormones, anxiety, depression, confusion, and anger in participants. Further, time in nature improved immune function and balanced participants' sympathetic and parasympathetic nervous systems. Time spent outdoors and exercising outdoors have been shown to help individuals suffering from mood disorders, low self-esteem, and poor physical health (Hansen et al., 2017). Hart (2016) found that individuals who suffer from depression and other mental health conditions are less likely to spend time in nature. Likewise, research shows that individuals who spend less time outside often present higher rates of depression (Hart, 2016). Higher levels of depression were found in individuals who only went outside two or three days a week. Because time spent in nature can help mitigate feelings of depression, this can create a vicious cycle.

2.3 Urbanization and Disconnection from Nature

With a shift away from rural areas into urban, densely built environments over the past hundreds of years, humans have become progressively more disconnected from nature (Bratman et al., 2015; Hart, 2016; Louv, 2012; Ulrich et al., 1991). As a result of urbanization, we are estimated to spend up to 90% of our leisure and work time indoors (Mayer & McPherson Frantz, 2004). Urbanization and disconnection from natural spaces have been associated with physiological and psychological detriments to health and well-being. In fact, there is a direct link between an increase in mental illness and decreased time outdoors (Swami et al., 2020; Yu et al., 2017). Lack of contact with nature is

associated with chronic illnesses such as heart disease, respiratory illness, lower immunity, lower birth rates, higher mortality, and mental health diagnoses such as depression and anxiety (Nisbet & Lem, 2015; Swami et al., 2020; Yu et al., 2017).

Factors such as technology and urbanization have a disruptive effect on our psychological, physical, and social health (Annerstedt & Wahrbord, 2011). A lack of contact with nature replaced by artificial stimuli has led to mental and physical exhaustion and an overall loss of health and well-being among our population (Maller et al., 2009; Ulrich et al., 1991). These factors can lead to a condition known as "burn-out syndrome," where the body and mind become exhausted physically, emotionally, and mentally. Research shows that burnout can happen when emotional needs are overlooked for an extended period of time (Jung et al., 2015).

While our bodies are still physiologically customized to natural settings, a significant amount of our population lives in densely populated urban centers with high amounts of artificialization and limited access to nature (Bratman et al., 2015). As a result, our sympathetic nervous system becomes overstimulated by these stressors, which leads to mental fatigue, anxiety, and depression. In turn, this can make our sympathetic nervous systems overactive, which can compound stressors within our bodies, and therefore harm our ability to regulate emotions (Mantler & Logan, 2015; Ulrich et al., 1991).

In urban environments, people tend to carry more stress because most of our environments are artificial, while physiologically, our bodies are still geared toward nature and natural processes (Hart, 2016; Mao et al., 2012; Park et al., 2001). Hart (2016)

suggests that the closer we get back to nature, the more the body can heal and improve from disease and stress-related illness. Stress and chronic fatigue are common conditions that affect individuals living in urban environments, which have been shown to amplify these conditions (Mao et al., 2012). Urban environments also breed stressors caused by noise pollution and pressures from work and other modern obligations (Park et al., 2001). Tracey et al. (2018) identify outdoor leisure activities as a way to help mitigate stress and improve overall wellness and quality of life.

Individuals living in urban environments have a higher occurrence of adverse health effects such as mood disorders, occurrences of schizophrenia, and a lower capacity to cope with social stresses (Gabrielsen & Harper, 2018). Along with increasing urbanization is an increase in the use of technology which is linked to rates of diagnosed anxiety, depression, behavioural disorders, and mood disorders which are climbing at an alarming rate. Coupled with a lack of time spent outdoors and being physically active, this is a great cause for concern (Bratman et al., 2015; Gabrielsen & Harper, 2018). Young people are not spending as much time in nature and, as a result, are becoming increasingly disconnected from (Barton et al., 2016). Richard Louv addressed similar findings in his book titled *Nature-Deficit Disorder*. He coined the term to describe the disconnection that our society has with our natural spaces and their impact on our health and well-being. He describes the term as, "Nature-deficit disorder describes the human costs of alienation from nature, among them: diminished use of the senses, attention difficulties, and higher rates of physical and emotional illnesses. The disorder can be detected in individuals, families, and communities" (p. 36).

According to Gabrielsen and Harper (2018), contact with nature in younger years is critical to minimize psychological stress impacts while supporting the likelihood of cognitive rejuvenation. To support mental health, youth need to "escape" from the daily urban hustle created by technology, activity, and noise and replace it with inward-looking activities. It is essential to take time for reflective activities for better mental health, which is something mindfulness can help with. Mindful-based activities can help alleviate symptoms of depression and anxiety that may be influenced by lack of time spent in nature (Gabrielsen & Harper, 2018).

2.4 Role of Parks

Parks are a way of protecting and preserving the natural environment for biodiversity, ecosystem health, connectivity, aesthetic enjoyment, and for the benefit of human leisure (Newman et al., 2018; Wright & Matthews, 2014). They serve a purpose for preserving ecological integrity, creating, and promoting feelings of community, and providing a forum for encouraging physical activity for various abilities, interests, and backgrounds. Park development has proven to eliminate stresses related to living in densely populated areas and has helped create recreation opportunities and promote physical health overall (Maller et al., 2009). Parks reduce crime, disease, social unrest while increasing immunity, enhancing productivity, and improving psychological well-being (Maller et al., 2009). Psychologically, time spent in nature can help to strengthen social bonds, improve concentration, and help with problem solving and cognition (Nisbet & Lem, 2015).

According to Reese and Myers (2012), individuals who spent time in nature in their childhood have an increased likelihood of having strong environmental identities, positive attitudes toward nature, feel more connected to nature in adulthood, and show more qualities of generosity and consideration toward others. Connecting with nature helps an individual empathize with the needs of other living things, translating to relationships and interactions with others. As a result, it helps create connectedness and a sense of community (Innes & Heintzman, 2012). With a rise in mental health-related issues and an increasing disconnectedness to experiences in natural areas, it is essential to recognize the preventative value that parks serve, and therefore begin to invest more time and money into conservation and outdoor recreation experiences (Buckley et al., 2019; Nisbet & Lem, 2015; Wolsko & Lindberg, 2013).

2.41 Indigenous History & Parks

Newfoundland and Labradorians live in the traditional unceded territory of the Beothuk, Mi'Kma'ki, Innu, and Inuit people. In today's social and political climate, it is especially critical to understand and educate ourselves on this history. It is impossible to talk about stewardship and respect for the land we live and play on without acknowledging the history of Indigenous Peoples and parks and protected areas. Although we celebrate parks for conservation, education, and places to recreate, they have a darker past. Many parks and protected areas in Canada have a contentious history, as they exist on the traditional territories of Indigenous Peoples. We know now that Indigenous people were displaced and sometimes violently removed from their homes

and territories to create the "peopleless" landscape we see in many parks today (Youdelis et al., 2020).

Canada's first park was created in the late 1800s in southwestern Canada, known today as Banff National Park. Settlers created parks to keep the landscape "wild," and free of human development in inhabitation. Their mandate was to have the land completely separate from civilization, to start tourism to the area, and to serve conservation purposes. Colonization of parks eradicated and displaced entire populations of Indigenous People from their traditional territories to meet their mandate of creating a "wild" park space to create recreation opportunities, encourage tourism, and protect from human development (Youdelis et al., 2020, p. 232).

The creation of these defined regions, which continue to act as conservation enclosures, intentionally removed Indigenous peoples from their lands and dispossessed them of their territories and perpetuated the illusion of "wilderness," as being pure and devoid of human life and influence (Zurba et al., 2019, p. 4).

Zurba et al. (2019) argue that when we focus on conservation in a defined space, like parks, it sends a message that conservation, behaviours, and attitudes within urban areas are not as important. In this sense, it further disconnects us from nature. Whereas Indigenous Traditional Ecological Knowledge informs that humans are part of nature, and until we can align our attitudes, behaviours, and actions in a positive way toward nature, the integrity of our environment is at risk (Zurba et al., 2019).

Historically, parks have been used by white, male, middle-class people to participate in capitalistic activities such as sport hunting and other forms of recreation

(Youdelis et al., 2020; Zurba et al., 2019). Youdelis (et al. 2020, p. 234) describe the origins of parks and their usage as "Wilderness is socially exclusionary as a historically white, male, middle-class playground." Parks have an exclusionary history towards Indigenous people and have also been described as "exclusionary along racial, gendered, and class lines. Wilderness has been associated with lone white male heroes, conquering the wild" (Youdelis et al., 2020, p. 235). This association is problematic, as perpetuating the image of "wilderness," is inaccurate to the histories of Indigenous people who have lived in these areas integrated with the ecosystem, with a wealth of Traditional Ecological Knowledge, for thousands of years. To work toward reconciliation and respect the land we habituate, work, and play on, we need to honour the true roots of conservation, which stems from Traditional Ecological Knowledge, and the people who were here first. It's critical to begin to see ourselves as part of nature, intertwined in the ecosystem instead of in control of or above nature.

2.5 Why Women?

The World Health Organization (2000) released their report on women's mental health, which detailed that mental health diagnoses such as depression rank as the number one health problem for women, double the rate of men. Not only does depression for women show up as the most prevalent health condition, but it is also frequently comorbid with other mental health conditions such as anxiety, social phobias, and other phobias (World Health Organization, 2000). Women suffer disproportionately from affective disorders over a lifetime, and the frequency of comorbidity of disorders was higher in women. For example, up to 60% of women who suffered from a disorder also had three

other conditions or disorders (Kessler et al., 1994). Research from Barton et al. (2016) indicates that women are at greater risk for developing depression and anxiety. As a result, they also suffer from poor self-esteem and other mental health conditions.

Other barriers to participation are strongly tied to gender influences. In their work, Henderson and Allen (1991) discuss the "ethic of care," which outlines the societal expectations levied on women to care for others first. The notion that to participate in leisure indicates selfishness. Therefore, social conditioning for women has often conflicted with taking care of self and participating in activities that are pleasurable for the sake of leisure and enjoyment (Henderson & Allen, 1991).

In leisure-based experiences, women empower themselves and one another (Henderson & Allen, 1991). The natural challenges that can present themselves in a wilderness setting can help individuals who identify as women shake self-limiting and social expectations, fostering growth and self-confidence (Barton et al., 2016). Research by Pohl et al. (2000) found that wilderness experiences served to empower women, help promote healthy self-esteem, develop a stronger social identity, self-assertiveness, and a positive body image, among many other therapeutic benefits. Women who have participated in nature-based therapy have also shown increased feelings of empowerment, self-esteem, a sense of belonging, and anxiety reduction (Powch, 1994; Swami et al., 2020). In a study by Pohl et al. (2000), participants reported that they found relief through escapism, self-sufficiency, change in perspective, connection to others, and mental clarity through solitude and revitalization.

Barton et al. (2016) also support that women are at a greater risk for suffering from mental health-related disorders. They found that women who suffer from low self-esteem at a young age are less able to cope with stressful life events, are at a higher risk of developing other mental health conditions, and demonstrate a low level of life satisfaction. Nature-based experiences have been shown to influence women's overall mental wellness and self-esteem positively and have been equated to higher levels of life satisfaction (Gabrielsen & Harper, 2018; Swami et al., 2020). These positive outcomes are thought to be prevalent because nature-based experiences allow women to challenge societal norms of being feminine or a woman. As a result, the adolescent women in the study by Barton et al., (2016) showed feelings of self-determination, self-confidence, an improved self-image, perseverance, strength, a greater sense of pride, accomplishment, and determination. The women felt empowerment through leadership, stewardship, and character building. Spending time in nature has been positively correlated with a restorative experience for women and as a result has resulted in improved cognitive functioning, increased concentration, a reduction in psychological and physiological stress symptoms, enhanced use of the senses, improved body image, and overall better feeling of well-being (Barton et al., 2016; Swami et al., 2020).

Although spending time in nature has been shown to have many mental health benefits for women, there are many gender-related barriers to accessing nature (Botta & Fitzgerald, 2020). Participation has increased over the years; however, it is still lower when compared to male participation rates (Botta & Fitzgerald, 2020). Interestingly, it was found that women's participation in outdoor leisure declines with age, whereas it

does not drop off for men. In a study from Botta and Fitzgerald (2020) some constraints highlighted by women included fear around an injury, a low self-perception of fitness and ability, lack of confidence, sexual harassment, financial responsibilities, and family commitments (Botta & Fitzgerald, 2020). In addition, research from Stanley (2020) found that many women name vulnerability, fear, and isolation as reasons they will not hike alone due to fears of being attacked by men.

Women are often underrepresented in advertisements for the outdoors. As a result, how gender is portrayed in advertising influences women's participation (Botta & Fitzgerald, 2020; Rogers & Rose, 2019). When women's images appear in outdoor advertisements, they typically depict a more passive role than males and are often overtly made to look more feminine (Stanley, 2020). Although the underrepresentation in the media is evident, Weatherby and Vidon (2018) see a growing trend that women are challenging this gender norm. They state that, "Women are beginning to challenge the normative perception of wilderness' masculine identity, inserting the feminine and becoming a more visible element of the wilderness landscape" (p. 11).

Many participation constraints are supported by Henderson and Allen (1991), who highlight the "ethic of care," for women, indicating that women often feel a societal pressure to put their own leisure needs on pause while prioritizing the care of others. Henderson and Allen (1991) explain that women often feel a moral obligation to take care of the needs of others before taking care of their own needs, such as leisure and enjoyment, especially when it comes to family obligations. Many of these caregiving roles that women take on include motherhood but do not necessarily end when their

children are grown. Henderson and Allen (1991) point out that many women continue to be the primary caregiver of family pets, care for adult children who move home, care for aging parents, and care for their marital partner who may be going through life changes. A continuous level of giving care to others often minimizes the importance of their self-care, especially in leisure pursuits (Henderson & Allen, 1991). Pohl et al. (2000) concluded from their research that:

"Wilderness and wilderness recreation can contribute to rectifying some of the social injustices and inequities from which women suffer today. These injustices are socialized within society and lead to oppression for women and other marginalized people. This socialization affects women's: self-esteem, authority, freedom, and independence," (p. 429).

This helps to support the notion of the social and community-level impact that nature-based experiences can have on women.

2.51 *Ecofeminism*

It is difficult to discuss the degradation and disconnection we are experiencing from nature without acknowledging that women face similar injustices. Like nature, women are similarly influenced by structures of power. By investigating this connection, we can begin to understand the detrimental impacts on mental health. Ecofeminism is a concept popularized in the 1970s and explores the connection between nature and women. It focuses on the power dynamic and patriarchal influence that often controls, oppresses, and exploits both women and the environment (Besthorn & McMillen, 2002; Klemmer & McNamara, 2020). Both injustices are separate issues, but they are deeply

integrated. These ideologies are so interconnected that through ecofeminism, it is thought if one issue is brought to light and moves toward positive change, the other would also be free from oppression (Besthorn & McMillen, 2002). Finally, it posits that humans have lost connectedness to nature and the unity of all things through modern living and the social impact of a patriarchal society. This disconnection can be felt in how we use language to understand the world around us, which is said to reflect our social, historical, and cultural values (Berman, 1994). Berman (1994) states that, "language perpetuates patriarchal traditions and domination" (p. 173). Instead of trees, we refer to them as "timber." We refer to wild animals for our consumption as "game." We refer to the untouched forest as "virgin." It is even thought that using the term "Mother Earth," can be seen as problematic, as we've assigned gender to something that isn't binary (Berman, 1994). Berman (1994) defines ecofeminism as:

The recognition that the oppression of women and the domination of nature in a patriarchal society are interconnected and mutually reinforcing. It's not that women are "closer" to nature, but have been subject historically to mutual subordination. ...Human beings are only one constituent of a much larger community: a community that includes all life and living systems (p. 172).

Through the lens of ecofeminism, by perpetuating this binary frame of thought, we further distance ourselves from becoming equal and a part of nature and equal in terms of gender. By having an anthropocentric view of our environment and asserting dominance over our natural resources, we continue to feel the division between us and nature. By

focusing on women's lived experiences in nature-based leisure, perhaps we can begin to understand the inherent connection between humans and nature on a deeper level.

2.6 Mental Health

Although we know rates of mental illness are climbing, it is unknown why these occurrences are on the rise. Some have argued that at the root of this is our modern lifestyle. Still, there is a significant movement to help destigmatize, treat and prevent symptoms of anxiety and depression. Collectively, we are over-worked, under-active, and arguably more disconnected from nature than we ever have experienced as a global population, perhaps more so in North America. Our lifestyles have become highly urbanized and have eliminated the need to relate to nature (Annerstedt & Wahrbord, 2011). As a result, we no longer need to access nature every day for subsistence or other needs. Because of this divide, we feel disconnected from nature, community, and our overall wellness.

There is substantial evidence to support the benefits of nature-based experiences on individuals' mental health and wellness (Burls, 2007). Recent research by Tracey et al. (2018) confirmed that therapeutic nature visits helped improve mental health for individuals by finding an increase in positive affect and a reduction in negative moods compared to when in an urban setting. Further, it was found that occurrences of anxiety and depression showed improvement for some participants when spending time outdoors. In a study by Mao et al. (2012), three groups of participants took part in nature-based activities in an urban environment and a forest environment. Serum cortisol levels were taken from participants in both groups and a control group to evaluate stress markers.

Researchers found that the serum cortisol levels were significantly lower in participants of the forest group. A Profile of Mood States assessment (POMS) was applied for participants to self-assess from a psychological measure. There were notable decreases in several mental health areas, including tension, anxiety, anger and hostility, fatigue, confusion, and overall negative mood (Mao et al., 2012).

Not only do nature-based activities help to improve attention span by using meaningful engagement, but they also help to stimulate positive emotions and produce a calming effect in individuals. This has been found to help towards the recovery of an individual's mental health (Hawkins et al., 2016). In a study looking at the health of cancer survivors, Ray and Jakubec (2014) name nature-based experiences as an approach to address the quality of a survivor's physical and psychosocial health. Nature-based experiences can provide opportunities for enhanced social connection, improved self-esteem, mood, and vitality (Ray & Jakubec, 2014). In a study by Swami et al. (2020), it was also found that spending time in nature helped deepen a connection to nature and helped focus the individual's attention on what their body could do rather than what it looked like. Focusing on body capability and time spent in nature can help influence a healthy body image by practicing self-care and shifting thoughts to body function over appearance. It was found that individuals felt more mindful, self-compassionate, appreciative of their bodies, and as a result, had a greater acceptance of self (Swami et al., 2020). Overall, the literature illustrates that nature-based experiences have many positive outcomes for individuals who are symptomatic of stress, anxiety, depression, and low self-esteem. This evidence provides a supportive framework to integrate mindfulness

methods in a park setting to investigate the relationship of connection through self, community, and nature for women.

2.7 Mindfulness

Mindfulness has ancient roots in Buddhism, but more recently has been popularized by the works of Jon Kabat-Zinn. He describes the practice as "moment-to-moment, non-judgmental awareness, cultivated by paying attention in a specific way, that is, in the present moment, and as non-reactively, as non-judgmentally, and as openheartedly as possible" (Kabat-Zinn, 2015, p. 104). Mindfulness is a practice and a state of being that encourages individuals to focus on their environment to help ground and calm the mind and body, using all five senses (Tracey et al., 2018). In their research around mindfulness and the practice of shinrin-yoku, Olson et al. (2020) describe mindfulness as, "an attempt to pay attention, to listen, and to be aware by simply noticing your breathing" (p. 2). This criterion lends itself well to nature-based activities. Mindfulness is a tool that effectively mitigates chronic stress, depression, and anxiety for many practitioners (Newman et al., 2018). Practicing mindfulness in natural environments can help to maximize the benefits (Park et al., 2001). Integrating the benefits of mindfulness and nature has been shown to promote feelings of interconnectedness with others and the environment, psychological well-being, and improved perceptions, attitudes, and behaviours toward nature (Unsworth et al., 2016). In a study by Bennett et al. (2017), the benefits of practicing mindful meditation while in natural areas helped individuals feel more connected to the natural world around them through a measure of nature connectedness. Using mindfulness has helped individuals

learn skills to develop their self-identity, build confidence, and foster acceptance around their situations.

2.7.1 *Shinrin-yoku*

Mindfulness is a technique used in many parts of the world to help improve mental health, anxiety, and depression. In Japan, mindfulness is used hand in hand with nature-based therapy through the practice of shinrin-yoku. Shinrin-yoku, also known as forest bathing, is an art that was developed in the 1980s in Japan in response to citizens' stress created from highly urbanized environments (Hansen et al., 2017; Olson et al., 2020; Yu et al., 2017). It requires the practitioner to spend time in a forested area, either walking or sitting and meditating. A focus on the five senses is the goal. It is a traditional practice that involves using all five senses while being immersed in nature (Hansen et al., 2017; Olson et al., 2020; Yu et al., 2017). The benefits of shinrin-yoku are both physiological and mental. Physiologically, the benefits of forest bathing help improve immune system function, decrease hypertension, and improve the respiratory system. Mentally, it has been demonstrated to help improve depression, anxiety, and stress symptoms, promote relaxation, reduce symptoms of ADHD, and increase feelings and the practice of gratitude (Hansen et al., 2017; Yu et al., 2017). By taking part in shinrin-yoku, one may experience improved immunity and respiration, mental relaxation, and feelings of deeper connection and spirituality (Hansen et al., 2017).

Shinrin-yoku is often tied closely to mindfulness and shares similar characteristics. Many have practiced both mindfulness and shinrin-yoku deliberately and incidentally for decades. Much of the research delineates them to be separate practices.

Shinrin-yoku facilitates the use of the senses to take in the natural world and fosters a sense of mindfulness in an individual. Whereas mindfulness is more of an inward-looking practice, forest bathing focuses more on the external. I argue that they are one and the same despite this difference. By focusing on the senses (inner work), mindfulness may be a byproduct. Sitting in stillness and accessing mindfulness via deliberate meditation also focuses on the senses. For example, imagine you are sitting, preparing to meditate. You may employ grounding techniques like noticing the weight of your body on the ground, or the feeling of your feet in your shoes. Maybe you are focusing on areas of the body that directly connect to the ground. You may notice the feeling of the air against your skin. By focusing inward, we must also acknowledge the outer world. Shinrin-yoku only differs in the sense that it takes place in a natural or forested area. Both modalities boast incredible mental health and physiological benefits to the practitioner.

2.7.2 Attention Restoration

Attention restoration theory is a type of nature-based mindfulness that looks at an individuals' attention patterns, whether described as directed or soft fascination (Hartig et al., 1991; Kaplan, 1995; Poulsen et al., 2018). Soft fascination is practiced during therapeutic nature interventions and can be described as something that easily captures someone's attention. An example of soft fascination is allowing ones' attention to be captured by natural features such as branches blowing in the wind, clouds moving across the sky, or watching the patterns of ocean waves. In comparison, directed attention such as working at a computer or reading text requires a large amount of concentration, which can build stress and anxiety. Like the qualities of mindfulness, soft fascination as a

practice can help to calm the mind and provide relief from stress (Hartig et al., 1991; Poulsen et al., 2018).

It is well supported that visual aspects of nature have been found to have many mental health benefits for individuals. These better-known benefits include increased directed attention, stress reduction, reduced anxious thoughts and feelings, and a lower heart rate (Franco et al., 2017). Similar to the practice of mindfulness, which focuses on the use of all senses, Franco et al. (2017) outline the benefits of spending time in nature with our other senses that often do not get as much attention (Franco et al., 2017). Designs found in natural spaces help foster these feelings. Franco et al. (2017) suggest that when compared to urban spaces, natural features host a variety of interesting shapes, colours and textures that appeal to our senses. For example, natural features often have curvature instead of straight lines, and vivid and saturated colours instead of grey, which is more innately interesting to the human mind.

Looking at our sense of hearing, sound from natural areas is the preference over urban sounds. Sound in natural areas can help individuals feel connected to the place, feel a stronger attachment to the environment, and foster the practice of mindfulness. It has been shown to help sympathetic nervous system recovery, which aids in a reduction of anxious thoughts and feelings and agitation (Franco et al., 2017). Natural smells elevate mood, alertness, and illicit feelings of calm and happiness in individuals. They have also been proven to impact cognition and brain activity in a positive manner (Franco et al., 2017).

Some of the other psychological effects of using mindfulness include feeling a sense of escapism, awe, and developing a sense of place. These effects can create an attachment to place and provide an emotional connection. Hawkins et al. (2016) discuss the concept of nature having a buffering effect, which indicates the ability of nature to help provide a buffer from negative emotions and related stress, acting as an emotional safeguard. Having positive emotional benefits may allow participants to experience therapeutic interventions in a context that feels more forgiving or safe for them to participate. Practicing mindfulness in natural areas over 30 days strengthened the practitioner's connection to nature and helped to improve their practice of mindfulness (Schutte & Mlouff, 2018).

2.8 Stewardship

Parks and protected areas promote many social benefits, but at their core, they are essential for protecting biodiversity and conservation efforts. Without fostering stewardship and understanding for these areas, they could be at risk for degradation due to tourism, economic factors, climate change, and misuse. Buckley et al. (2019) argue that the link between health and parks can help drive political influence to help influence continued conservation efforts. Because parks can offer a direct health-related outcome, parks hold economic value and, therefore, should be invested in (Buckley et al., 2019). Parks are acknowledged for helping improve aspects of an individual's social, physical, cognitive, and spiritual wellness and can help secure an individual's sense of identity and life purpose (Hawkins et al., 2016). Capaldi et al. (2014) state a strong link between nature connectedness and pro-environmental attitudes and behaviour. Their study on

nature connectedness and well-being stated, "As nature connectedness predicts sustainable attitudes and behaviours, this suggests that the relationship between nature connectedness and eudaimonic well-being may be even stronger" (p. 11). This relationship demonstrates the connection toward improved sustainability.

The province of Newfoundland and Labrador has no shortage of natural spaces to explore. It is home to twenty-two provincial parks with mixed camping and day use, ten provincial park reserves, and three national parks. These protected areas have varying access levels and offer different attributes for recreation and conservation purposes and economics, as many larger parks employ the tourism sector (Innes & Heintzman, 2012). In their study in Gros Morne National Park, Innes and Heintzman (2012) found that parks can help foster and support community ties. The park's growth and development have helped connect the community and surrounding communities, literally and figuratively. Their study implemented in-depth interviews using qualitative data analysis. The questions inquired about what changes occurred and whether the residents perceived them positively or negatively. It was found that the creation of the park facilitated the creation of better infrastructure, improved access through new and upgraded roads connecting isolated communities, and created employment. It has also helped restore and maintain old heritage buildings that hold memories and are a source of pride for locals (Innes & Heintzman, 2012). The purpose of this review of literature was to establish what is already well known and researched in relation to women's experiences with mindfulness and mental health, nature connection, and stewardship. Although there is much research on these topics as separate entities, limited research integrates them all. It

is evident that there is a growing mental health crisis with women specifically, and a growing environmental crisis that we are facing because of an increasing disconnect with nature. There is also limited research that investigates the relationship between women's mental health and the practice of mindfulness in nature. With the framework of this literature review, I have outlined gaps in research in relation to gendered experiences with mindfulness and feelings of stewardship. Drawing upon the theoretical framework of Attention Restoration Theory, this research investigated the connections between these topics. Using photo elicitation and a feminist narrative inquiry for analysis, the results focused on women's lived experiences.

CHAPTER 3: Methods

This research used a participant-based approach that utilized photo elicitation informed by feminist narrative inquiry. I used semi-structured interviews for qualitative data collection. Using a qualitative research approach informed by feminist narrative inquiry, I collected data from 10 participants who self-identified as women and as practitioners of mindfulness. To participate in the interview, each participant supplied five photographs that they had taken in Newfoundland Parks and Protected areas that prompted feelings of mindfulness. Participants were also asked to describe how they defined and understood mindfulness. Interviews were held virtually and were semi-structured to allow for an organic flow of conversation. During the interviews, participants were asked to discuss their motivations behind taking the photographs; more specifically, what natural features of the photographs prompted feelings of mindfulness, and what inspired them to take the photos. The interviews were analyzed using qualitative data analysis and were coded and defined by themes. Below, I introduce the study design and rationale, the recruitment process, and provide pertinent definitions for data collection. Then, I discuss how the data was collected and analyzed, followed by ethical considerations. This research offers a unique perspective in this field, as much of the research in this field is quantitative. Lived experiences and qualitative inquiry can potentially provide a deeper understanding of our relationships with pro-environmental behaviour and stewardship (Beery & Wolf-Watz, 2014). In the following sections, I situate myself in the research, outline the methods I used to conduct this research, and discuss some associated strengths and weaknesses of the methods chosen.

3.1 About the Researcher

I grew up in a small suburb of Vancouver, British Columbia and spent much of my childhood outdoors and camping on summer holidays. Developing a love of the outdoors, I became interested in environmentalism and decided to attend the University of Northern British Columbia in Prince George, BC to complete a Bachelor of Science in Natural Resource Management with a focus in Outdoor Recreation and Conservation with an independent minor in Global Environmental Change. Prince George is a community with ample wild space and opportunities for outdoor recreation, and where I fell in love with exploring the backcountry. After working for a couple of years in conservation and environmental work, I became interested in the therapeutic aspects of recreation and completed a diploma in therapeutic recreation. Along with being an active yoga teacher and practitioner for several years, this path lent itself nicely to work in this field with youth at risk and also in long term care, delivering therapeutic recreation programs.

Along with my formal education, I have taken several courses in mental health-related topics such as Mental Health First Aid, Acceptance and Commitment Therapy, and several other courses that incorporate mindfulness, including several yoga teacher trainings. I am a per-course instructor in the School of Human Kinetics and Recreation at Memorial University. I volunteer in therapeutic recreation with a focus on animal-assisted therapy and work in mental health and therapeutic recreation with vulnerable populations within the community. I see the positive impacts that time spent in nature can have on an individual. My passion is working in mental health, specifically with women

and other marginalized populations. I have a strong mindfulness practice on and off of my yoga mat and spend most of my free time outdoors where I enjoy hiking, paddling, camping, winter sports, exploring with my dogs, and just being in the presence and awe of nature.

I chose to do this research because I believe the mental, emotional, and spiritual benefits of spending time in nature are profound. I was curious as to what motivates and constrains women from accessing tools such as mindfulness, and if feeling deeply connected to nature facilitates a desire to protect it. I was also called to find deeper understanding of what inspires stewardship and pro-environmental attitudes and behaviour.

3.2 Study Design and Rationale

This research used a qualitative approach rooted in feminist narrative inquiry and photo elicitation. Feminist narrative inquiry is a methodology that seeks to hear stories, understand women's perspectives, and therefore help improve their lives and enact social change (Budig et al., 2018; Woodiwiss et al., 2017). This approach provides an opportunity for women to share rich and personal experiences and offers an opportunity for women's stories to be heard and make connections with their narratives (Woodiwiss et al., 2017). Simmonds et al. (2015) describe this methodology as beneficial as it focuses on lived experiences and greater meaning. As stated by Grimwood (2017), it "honours peoples' stories as data that can stand on their own as pure description of experience" (p. 510). Budig et al. (2018) also name the value of using this approach to tease out the stories and experiences from women's rich lived experiences and life histories. There is

limited research in nature connectedness and stewardship from a qualitative lens; the majority of connectedness to nature and stewardship research is quantitative (Beery & Wolf-Watz, 2014).

Women were the chosen focus of this study, as they belong to an equity-seeking group and are often underrepresented in research regarding outdoor recreational pursuits (Botta & Fitzgerald, 2020; Rogers & Rose, 2019). Further, women characteristically face more barriers in accessing nature-based activities and suffer disproportionately from mental health-related illness (CAMH, 2022).

3.2.1. Photo Elicitation

This research used photo elicitation by using participants' photographs of natural features or memories taken in Newfoundland and Labrador parks to help guide the interviews. Participants provided five photographs that provoked feelings of mindfulness in them. The use of photographs to query themes related to the embodiment of mindfulness and the impact on mental health in natural spaces helps bring meaning to something otherwise intangible. The stories that came through this photo elicitation process offered a richness and deeper substance to participants' reflections. The participants were asked to describe what aspects of mindfulness inspired them to take the photographs and tell the stories behind them. Throughout this process, the data from the interviews was deep and rich. In analyzing the content of the photographs, I discerned four themes. Participants most often captured the photographs to commemorate one or more of the following: special moments, natural features that triggered feelings of beauty

or awe, “selfies,” to celebrate feelings of inspiration and empowerment, and their connection and relationship to others.

Photo elicitation can create a deeper understanding and interpretation of the knowledge provided and exchanged between researcher and participant (Allen-Craig et al., 2020; Simmonds et al., 2015). It is a powerful way to highlight social issues and injustices while giving a voice and, therefore, power to participants to share their stories in a meaningful way (Allen-Craig et al., 2020). This methodology is similar to photovoice, created by Wang and Burris (1994). Photovoice is a visual participatory research method that has participants take photographs to document aspects of their life, or of a particular subject, to empower them to show their outlook. It uses photographs taken from the participant to help guide the researcher in the interview process and allow the participant to share their experiences through imagery and personal reflection and perspective (Loeffler, 2004). It is considered a branch of participatory research and can prompt topics that require social focus or a need for change (Murray & Nash, 2016). Its focus is rooted in the participant’s lived experiences and can enrich the dialogue of an interview. Discussing imagery can help trigger memories and have the ability to facilitate metaphor and create more profound meaning and discussion, which can provide data that a verbal interview is not capable of (Murray & Nash, 2016). Because art can be open to interpretation, it is essential to recognize that both the researcher and participant will be subject to their own biases and interpretations, where the discussion exchange becomes important. Through photographs, important symbology can be explored and interpreted on a deeper level than words alone (Loeffler, 2004). Harper (2002, p. 13) explains the

potency of photo elicitation since “images evoke deeper elements of human consciousness than do words; exchanges based on words alone utilize less of the brain’s capacity than do exchanges in which the brain is processing images as well as words.” In this sense, it adds a richness and holistic lens to the interview process. It facilitates creating trust between the researcher and participant and assists in the dialogue and discussion between the two parties (Murray & Nash, 2016).

A strength of using photography for research is that it can create discussion and awareness around an issue. Secondly, it has the potential to influence policymakers (Wang, 1999). Wang describes the images produced by using this methodology as being able to, “... influence our definition of the situation regarding the social, cultural, and economic conditions that affect women’s health. They can further contribute to how we see health status, differences, and outcomes” (p. 186). There are many benefits to using photovoice and photo elicitation for research with a female population. This method offers an advantage to participants with less power, offering them an opportunity for their voices to be heard. It also empowers women to give meaning and bring awareness to what is important to them, allowing them to consciously choose the story of what they see and experience (Murray & Nash, 2016). Because the population I am looking at focuses on women, who belong to a marginalized group, I feel this is an appropriate fit (Pohl et al., 2000). It also allows individuals to share their voices and experiences through personal stories (Pohl et al., 2000). Murray and Nash (2016) state that this is especially important for populations who may be marginalized or vulnerable.

Wang et al. (1998) state that photovoice can help improve feelings of self-esteem, make personal connections, build community, and increase personal feelings of power. In other research, Wang and Burris (1994) describe photovoice as a participatory action research method, “by which people create and discuss photographs as a means of catalyzing personal and community change” (Wang & Burris, 1994, p. 75). Because of the social benefits of photovoice, I used photo elicitation to obtain similar outcomes. With many individuals having photo technology at their fingertips, photo elicitation is more accessible than ever. Participants have power over what they choose to share and do so creatively through social media sharing and editing (Murray & Nash, 2016).

Using photo elicitation allowed participants to convey their thoughts and feelings about a particular subject, a powerful tool to offer women to share their perspectives and how they see the world (Budig et al., 2018; Wang, 1999). Harper (2002) states that the use of photographs during an interview, “produces a different kind of information, feelings and memories that are due to the photographs particular form of representation” (p. 13). Photographs can also help expand understanding of participants’ stories, as the visual center of our brain is evolutionarily better at understanding than the verbal center (Harper, 2002).

Moreover, as imagery is often more effective at recalling memories, it helps to bring more detail to the discussion than a formal interview (Murray & Nash, 2016). There is also benefit to the participant, as moving through their memories using this method can also help to prompt understanding and offer new views to their existence and experiences (Pohl et al., 2000). The imagery from the photographs prompted questions and, therefore,

worked as a medium to guide the conversation. In research from Allen-Craig et al. (2020), they described visual descriptors as, “stories told through, by or with images,” (p. 91), and that this type of methodology helps to offer “rich and often deep understandings of the social context and the complex layers of participants’ worlds” (p. 124). Exploring the women's barriers in accessing a state of mindfulness helped create a well-rounded understanding of their experiences.

Photo elicitation is a collaborative interview process between the researcher and the participant that uses photographs to help guide the discussion. It focuses on lived experiences and can often gather data that verbal interactions alone cannot (Murray & Nash, 2016). Giving the participant a larger role can be invaluable. By allowing the participant to take the lead as the expert, the researcher can gain direct insight into the participants’ lived experience, thoughts and feelings on a theme being discussed (Budig et al., 2018). In addition, it can help uncover parts of the unconscious mind by prompting memories and details that may otherwise not be discovered. By allowing an open-ended question about the meaning of their photographs, the participants could guide me through their stories and experiences, which allowed for open and deep sharing.

Photo elicitation lends itself to balancing any power dynamics in the interview process, which is essential when working with vulnerable or marginalized populations. The photographs and storytelling put the power into the participants’ hands and allowed their voices to be heard (Pohl et al., 2000). Further, photography gives the participants choice in how their stories are told and weight to how they may be perceived by others and helps to build trust and connection between the researcher and the participant

(Murray & Nash, 2016). It has also been a catalyst for creating social change (Budig et al., 2018).

Over the past several years, women have increasingly challenged the rhetoric that nature is a male-dominated landscape (Weatherby & Vidon, 2018). One way that this is taking shape is through photography. In their research, Weatherby and Vidon (2018) looked at the influence of social media and photography on how women are portrayed in the outdoors. They found that women posing in “power” poses in nature helps to challenge the preconceived notions that males dominate the wilderness. They explain that when others see this visual representation of a social issue, it helps counter pre-existing ideas that have shaped our society’s view of women and their limitations. The woman chooses how she presents herself and her accomplishments to the world. Weatherby and Vidon (2018) assert that these visuals can act as a visual tool to gain societal recognition that women are capable of nature-based accomplishments and feats typically attributed to male characteristics and strengths. This sentiment of capability helps challenge the viewer’s perceptions and creates an empowered sense of identity for the woman. Weatherby and Vidon (2018, p. 11) state that “By actively putting themselves in these powerful and dynamic poses, women are framing the way they see themselves in the wilderness and are changing the way others see them as well.”

3.2.2. Defining Mindfulness

Mindfulness is often described as a state of being or a state of mind obtained by being attentive to the present moment (Barbaro & Pickett, 2016; Franco et al., 2017; Olson et al., 2020). Because it is a state of mind, it is difficult to predict exactly what

activity or practice allows the participant to obtain mindfulness. For that reason, it was up to the individual to decide when they had obtained a state of mindfulness when they felt immersed in the present moment. Work by Brown and Ryan (2003) supports that mindfulness is, “most commonly defined as the state of being attentive to and aware of what is taking place in the present” (p. 822). More importantly, participants needed to be immersed in nature. As Newfoundland and Labrador has many urban centers and smaller communities, one way to ensure an immersive experience is to access a Provincial or National Park or nature reserve. This research loosely followed the framework of the practice of *shinrin-yoku*, in which being immersed in nature is an essential component. As described in research from Hansen et al., (2017), *shinrin-yoku* is, “a traditional Japanese practice of immersing oneself in nature by mindfully using all five senses.” (p.1). This was chosen because it places the focus of the activity to be immersed in nature and observing the senses of ones’ surroundings, making it accessible to and approachable to newer practitioners of mindfulness.

3.3 Participant Recruitment and Study Procedures

Participants recruited for this study were required to have a baseline understanding or current practice of mindfulness to participate. Participants were aged 19 or older, identified as women, had access to parks and protected areas in Newfoundland and Labrador, and had access to a camera or phone to take photos. Participants were recruited using convenience sampling through social media as a platform. I shared a recruitment poster on several Facebook groups, including hiking groups, mother groups, and outdoor experience groups. The recruitment poster can be found in Appendix A.

Women in this study were located throughout the province of Newfoundland and Labrador. I aimed to recruit between 6 and ten participants based on the sample size suggested by Braun and Clarke (2006) to gain sufficient information to see patterns and themes in the data. Once participants were recruited, I emailed the participants the research details, purpose, and objectives, a list of Newfoundland and Labrador National and Provincial Parks included within the study's scope, and a definition of mindfulness to ensure understanding of the objectives further described below.

Photo elicitation was used during the interviews to enable participants to illustrate their experiences. Participants were asked to email a minimum of five photos that elicited feelings of mindfulness and were taken in Newfoundland and Labrador Parks and Protected areas to discuss along with other questions in semi-structured interviews. They were asked to choose photos of objects, features, or people that made them feel mindful and their overall experiences while participating in nature-based activities. I suggested that participants choose photos from a past experience rather than to interrupt a current mindful experience by taking a photograph.

Once participants were recruited, they were provided information about the research objectives, expectations of participating, and the consent forms. The consent form can be found in Appendix B. The interview times were coordinated between the participants and me and took place virtually using Zoom. I attempted to create a safe and supportive space by introducing the purpose of my research as a means to empower women to share their stories and experiences. Participants were encouraged to skip any questions that they did not feel comfortable answering. Lastly, I checked in with

participants to ensure they didn't have any questions or concerns about the conversation and assured them that their responses would be confidential. After the tenth interview, I felt that I reached data saturation, and no new themes were emerging from the interviews (Braun & Clarke, 2006).

3.4 Data Collection and Analysis

Interview questions addressed five themes: demographics, mental health and mindfulness, connection to nature, barriers and facilitators to accessing nature based leisure, and their photographs. The interview guide can be found in Appendix C. Interviews lasted between 35 minutes and one hour and 15 minutes and spanned from June 21, 2021, until September 10, 2021. During the virtual interview, participants were asked to describe their understanding of mindfulness and their method to achieve a state of mindfulness for the exercise. Participants discussed the objects of the photographs, feelings that arise while looking at them, reasons that the natural object was selected for focus, and traits of mindfulness that were prompted. They were asked to discuss the features of the images that evoke feelings of mindfulness for them and what prompted them to capture that image. I used this information to understand and delineate themes. In addition, participants were asked to discuss barriers to nature and experiencing mindfulness in nature that they faced as a woman.

The research activity in this study required participants to reflect on feelings of mindfulness. Mindfulness was described as a state of mind or being and is the practice of being fully engaged in the present moment, whether intentionally or spontaneously (Brown & Ryan, 2003; Kabat-Zinn, 2015). As discussed earlier, there are many effective

ways to practice mindfulness and many different techniques. Participants came into the study with an understanding of mindfulness and have practiced it in some form or another before the interview. They self-identified as having an understanding of mindfulness and gave a definition that closely aligned to the definition used for this research. Because the object of mindfulness is in the present moment, it can be spontaneously cultivated, as in something that has captured the participant's attention, or more intentional, such as a directed focus on an object or a specific practice (Kabat-Zinn, 2015). As the researcher, I provided a definition of mindfulness to align with the participants' understanding. Mindfulness for this study included any practice or state of mind that the participant felt they were rooted in the present moment. This could be accessed by observing the five senses in their natural surroundings, allowing their attention to follow features that stimulate soft fascination, or by the traditional approach of *shinrin-yoku* (forest bathing), which is walking or sitting in meditation to elicit feelings of presence and mindful state of being. They were required to take photos on their own devices or use photographs from a previous experience.

In an attempt to eliminate the power dynamic between the researcher and the participant, the interviews were semi-structured. The interview style also allowed for an organic flow of conversation and enabled the participant to discuss what mattered to them most. Data was collected from the interviews as well as the photographs during the activity. As outlined in Appendix C, I used the questions and allowed the conversation to move to other areas of interest when relevant. In some interviews, this led to different exploratory questions. During the interviews, I checked my understanding of the

participants' statements by asking for further detail and clarification when necessary. Participants were encouraged to reach out if they felt anything they'd like to add or change from the interview. After the interviews were transcribed coded, participants were sent a copy of the transcription for member checking to ensure the validity of my understanding and interpretation of themes. This was also to ensure their voice was heard correctly and to offer the opportunity to clarify, edit, or omit certain information. Most participants did not request changes, aside from minor errors found during the transcription process. One participant requested to leave out information she shared regarding her family, which was deleted from the transcript and not used in the data analysis.

Once member checking was complete, and participants were satisfied with the transcripts, I began to analyze the data, following the process of thematic analysis from Braun and Clarke (2006). The benefit of using thematic analysis is that it offers flexibility in creating themes and codes and analyzing the data. The first step in thematic analysis is to familiarize with the data. Part of the familiarization occurred during the transcription step, where I listened to the interviews carefully to ensure accurate interpretation. I read all transcripts several times to accomplish this, where themes began to present themselves naturally. Braun and Clarke (2006) assert that transcription helps to inform the beginning stages of data analysis and interpretation.

Step two of thematic analysis was to generate codes to begin the process of organizing the data (Braun & Clarke, 2006). I coded the transcripts to delineate meaningful statements, which was accomplished by using NVivo software. Once I

uploaded the transcripts to NVivo, I assigned statements and key ideas to codes that I created. Some examples of codes I found most frequently included: anxiety, stress, relaxation, mental clarity, financial, distance, peace, fear, solitude, and self-esteem. I had 24 main codes with many containing sub-codes to further organize the dataset, totaling over 100 unique codes. These initial codes helped to organize the data in a meaningful way, which helped to shape the next step: delineating themes.

Step three in thematic analysis searched for themes within the dataset (Braun & Clarke, 2006). This step involved sorting through the codes and making connections between similar codes. I categorized the codes by creating overarching themes, main themes, and sub-themes to organize the data thoroughly. An example of this was mindfulness as the over-arching theme, natural features that elicit mindfulness as the main theme, and water as the sub-theme. I created mind-maps in my field notebook to determine the relationships between codes and themes.

Step four of analyzing the data was reviewing the themes (Braun & Clarke, 2006). This phase involved combining similar themes to further streamline and organize the dataset and eliminate any themes that did not contain sufficient data. The data strongly supported most of the themes that were originally created, and as a result, I did not feel it was necessary to eliminate any. However, many related themes evolved to coincide with others.

The next step in thematic analysis was defining and naming the themes (Braun & Clarke, 2006). As Braun and Clarke suggest, “it is important not to try and get a theme to do too much, or to be too diverse and complex” (2006, p. 92). At this stage, I went back

and separated some themes to be more concise. For example, I started with a theme called “outdoor activities” and further defined it as, “green exercise,” as the first was too general. Creating more specific themes allowed my data to be more organized. From this stage, I could further specify detail by creating sub-themes. With the example of “green exercise,” sub-themes included hiking, swimming, biking, and rock climbing.

The sixth and final stage of thematic analysis was to write the results, using the themes as a guide (Braun & Clarke, 2006). For this stage, the themes I chose needed to have sufficient data to discuss the main themes and make connections. The overarching themes included mental health, mindfulness, community, barriers, facilitators, and empowerment.

3.5 Ethical considerations

This research went through the Interdisciplinary Committee on Ethics in Human Research for ethical review and approval and was approved on June 15, 2021. Ethical approval can be found in Appendix D. Practicing mindfulness can bring up painful memories and emotional triggers when discussing experiences. As this is not a clinical program and there was no clinical support available during the interviews, external resources and supports were made available to participants. Participant confidentiality was a crucial consideration to conduct this research. I emphasized that everything shared in the interview was confidential within the limitations of the law. Ownership around the photographs was discussed with the participants to understand that their photos may be used in a further publication (Simmonds et al., 2015). If the photographs are used for future publications, the participants’ identities will be protected by covering faces on the

images and not including names or identifying features. Along with their signed consent, participants also gave verbal confirmation of their consent to participate in the study at the beginning of the interview. Participants were given pseudonyms for the written results of this research.

Feminist narrative inquiry and photo elicitation provided a framework to gather qualitative data for this research. I believe that these methods helped facilitate this thesis' purpose, which was to explore women's connection to stewardship through practicing mindfulness in Newfoundland and Labrador Parks and Protected areas. In the next chapter, I discuss the significant findings from the research.

CHAPTER 4: Results

The results of this study cover a range of topics that are interrelated to nature-based connections. I will first introduce the women who took part in this research. Topics discussed include their childhood connection with nature, where they currently live, work, and play, and how they identify in connection to nature. In relation to connection to nature, the women shared how they like to access nature and where they perceive and feel barriers in access. Then, I discuss the geography of the island of Newfoundland and how parks are set up and accessed within the province. As mental health and mindfulness are largely influenced by nature-based therapy, I look at mental health and the practice of mindfulness, the embodiment, and benefits of the interrelation with nature. Finally, I look at how these components affect stewardship.

Along with discussion and analysis of the photographs, was exploring the connection these women have to nature. Connection points were evident in many different areas and presented several themes. The themes that emerged from the conversation included a variety of barriers and facilitators to nature-based experiences. Topics discussed were centered around the participants' connection to nature as influenced by their childhood experiences, motivations to getting outside and into parks, barriers to access, history of mental health, feelings, and embodiment of spending time in nature, and fostering feelings of stewardship.

These topics are all interconnected and can be better understood by using the analogy of a spider and her web. The entirety of the web represents our connection to nature; the quality, the strength, how it's rooted in its' environment. All of the intricacies

of the web are the aspects of what influence this connection. If you can imagine, every individual has a unique framework for the beginnings of her web. All of the structural components are the same, but the way they take form is distinctive and individualistically shaped from experiences, situational circumstances, and personality. It can be assumed that a spider, like a human, can only do their best with what they know, the tools they have, and the knowledge they've acquired. Each spider begins their web by anchoring points to something fixed in its surrounding environment. The foundation can greatly influence the strength and outcome of the web. This foundational piece can be imagined as childhood experiences. Wrapped within childhood experiences and development are situational circumstances. A strong foundation would be indicated by forging connections to natural spaces from a young age, having ease of access due to financial stability, and being surrounded by community and guardians who value nature-based experiences. In contrast, a shaky foundation can be likened to a lack of access to natural spaces, growing up in a household without the disposable income to access parks, having guardians who do not visit natural spaces, themselves, or living in a heavy urban setting with limited access to green spaces. The beginnings of the web set the foundation for what's to come. Without a strong foundation, a successful web is still possible, but it does not set the spider up with ease for experiencing connection to nature.

Emerging from this foundation are the anchor strands. Each anchor strand is an essential support in how the web becomes shaped. The anchors are attached first to help shape the inner framework of the web. These strands will be the guide in how the spider weaves her web, which will ultimately reflect the success and well-being of the spider.

The anchor points begin as mutually exclusive characteristics or influences, and as the web progresses, they become more and more intertwined as they move toward the center. Anchor points can be pictured like a continuum in the web and represent mental health, mindfulness, community, relationships, and environmental stewardship. Each is an intrinsic and complex part of the web, and all are intricately interconnected and are arguably equally important. From the anchors, the spider continues to weave inward, beginning to make the connections between the anchoring strands. How she connects to nature is reflected by the strength of these ties. For example, practicing mindfulness in nature can contribute to better mental health. Practicing mindfulness can lead to feelings of stewardship; taking part in stewardship actions can lead to better environmental protection and the continued benefit of spending time in nature. The benefits of these practices strengthen the integrity web, and therefore, the connections the spider weaves between these strands become stronger.

Barriers can be pictured as an entanglement or a blockage, a physical disturbance in the structure and quality of the web. They can be described as anything that harms the strand itself. The type of barrier is unique to the individual and her web but can include things such as traumatic experiences, addictions, anxiety, depression, and fear of accessing parks and protected areas. When one of the strands becomes entangled or impacted, it can cause disturbance to another strand, which inherently impacts the integrity of the web as a whole. For example, if the strand of mental health is weakened or broken, it will have a ripple effect somewhere else on the web. It may influence the strand representing relationships, or it could result from a shaky foundation.

When all aspects of the web are balanced, they contribute to the quality of the structure as a whole. As a result, the integrity of the web is strengthened. Although no web is completely perfect, all strands of the web serve a purpose and contribute to our well-being. Our webs are not static and fixed. A spider can continue to work on her web, making adjustments, strengthening connections, and making repairs. This is not unlike us and our connection with nature; it is something that can be improved upon once realized. With this analogy, we can see that we are not separate from nature, but we are intimately integrated within it. The women shared how these aspects came together from their personal experiences and the memories shared.

4.1 Meeting the Women and Where they Live

Ten individuals who identified as women with various backgrounds, experiences in nature, and histories with mental health were interviewed. They ranged in age from 26 to 60 years old. Nine of these women identified as White and one identified as Black. Seven out of the ten women were born and raised on the island of Newfoundland and two had lived away and returned to the island. Eight of the ten women currently lived in the urban area of St. John’s or surrounding area, and the other two resided on the island's west coast, in a rural area outside the city of Corner Brook. Nine of the ten women had post-secondary education, and all were working full-time in their careers.

Table 1.

Demographics of the women interviewed.

Age	Current Location	Ethnicity	Pseudonym
36	Avalon Peninsula	White	Hannah
35	Avalon Peninsula	White	Emily

60	West Coast	White	Anna
26	Avalon Peninsula	White	Deirdre
33	Avalon Peninsula	Black	Gillian
39	Avalon Peninsula	White	Farah
48	Avalon Peninsula	White	Jade
33	West Coast	White	Christa
39	Avalon Peninsula	White	Isabelle
35	Avalon Peninsula	White	Bridgette

The island of Newfoundland is unique to many places in Canada because even the largest city of St. John’s is quite small compared to others in the rest of Canada. The urban center of St. John’s and its surroundings is home to approximately 170,000 people and is surrounded by green space, municipal parks, and an extensive trail system. Many participants cited urban living as contributing to their stress, anxiety, and poor mental health. Factors of urban living shaped participants’ quality of mindfulness practice as well. Jade described the stresses of living in the city and often feeling like she can’t keep up with the demands of our urban society, “Our world right now. The way it's set up to keep us working and buying and doing more, and all the rest.” Emily had similar thoughts and discussed the embodiment and the toll that stress of urban living can take:

I got very burnt out and I stopped hiking and biking and doing things that I love...It felt like a chore to walk my dog. [I] was really burnt out. And I could see, reflecting back, I just stopped doing everything I love so I've learned a lot of lessons through experience and burdens.

Many of the women discussed the urban features that caused them to feel mental overwhelm and over-stimulation, including traffic, noise, smells, pollution, litter, a high density of people, and visuals of human impact, including urban sprawl and new development. Feeling the overwhelm of urban environments was a common reason these women sought comfort in natural spaces. Stimulants of urban living tend to overwhelm Deirdre, who prefers natural environments.

It's just often easier to breathe outdoors. I find it just more comfortable to exist in my body outdoors. I feel like I don't like a lot of the sensory experiences associated with indoor environments. I don't like bright lights or air conditioning, or spontaneous dinging noises. I often just feel instantly relieved outdoors. It is just more comfortable to occupy my body.

Because of the lower population density, it was perceived by many participants as easier to "getaway," from urban noise and distraction. Farah reflected on the ability to find peace and silence in this province. She recently moved back to St. John's after living in a large city in another province for many years. Farah reflected that she didn't notice the importance of the ability to find peace and silence until she returned to the island of Newfoundland and that she now appreciates the ability to seek it out with ease.

I wouldn't be able to live in a big city because of the noise, the stimulus. There are so many ways to escape mindfulness in cities. It's so distracting. You really don't have to be with yourself in cities, like with your feelings or your body or, you know? I just think it's so important specifically to Newfoundland to be in silence.

Despite the availability of crown land and green space surrounding the cities of St. John's and Corner Brook, most participants still acknowledged that urban living was a source of stress and anxiety. Many participants stated the need to get away from the urban soundscape and get into natural areas to facilitate mindfulness and relaxation.

4.1.2 Childhood Connections to Nature

Most of the women interviewed had spent a lot of their childhood in nature, and many had grown up experiencing the parks with their family on camping trips. Newfoundland and Labrador Parks especially held a lot of nostalgia for the women. The parks mentioned most frequently were Butter Pot Provincial Park, Terra Nova National Park, and Gros Morne National Park. Several of the women said they had cabins that they would spend summers at, which allowed them to spend a significant amount of their time partaking in nature-based activities as children.

Frequent access in early childhood development and feelings of deep nostalgia of nature seems to have contributed to their motivations to continue returning to these spaces as adults. Participants shared that they currently access Newfoundland and Labrador Parks and Protected Areas between two and 16 times per year. Many acknowledged that they access other natural spaces now due to barriers such as time constraints and distance. The women who lived on the west coast of the island indicated that they access parks more frequently. Anna shared that she now takes her grandchildren to the same places she took her children to and where she went as a child.

Many of the participants acknowledged that people who live in the province of Newfoundland and Labrador are fortunate to have ready access to so many nearby natural

spaces. Farah noted that accessing nature used to be more much difficult in the city she used to live. After moving back to the island of Newfoundland, she expressed, “But that's why I stayed because I knew that that's what I needed some softness and solitude. It's fucking¹ amazing.”

Bridgette also felt a deep sense of connection to place when discussing the local parks she frequented as a child. She noted that what she now knows as practicing mindfulness, is something she had been experiencing in nature as a child all along. Most of the participants also experienced a feeling of nostalgia when reflecting on the parks they visited as children. These places now foster connection as an adult. Bridgette recalled her experiences as a child and noted that she had been practicing mindfulness in nature at a young age.

And they are places that from a very young age, I knew that I was mindfully walking and meditating. And they very much have this feeling of nostalgia for me. I'll crave them sometimes. I need to drive to my parents and go for a walk in these particular spots.

Christa also expressed the importance of nostalgia when visiting parks that she explored in her childhood. As an adult, she feels more motivated to access the areas she once visited with her family, “I have a lot of family memories from times in Terra Nova, and Gros Morne, in particular. So visiting them has a nostalgic component as well.” Hearing about these shared histories, it is clear that connection to place in these spaces is tied to memories, emotions, relationships, and days past.

¹ Using exact quotes was important to convey the authentic emotion from the participant.

4.2 Geography of Newfoundland and Labrador Parks

As a province, Newfoundland and Labrador has an abundance of natural spaces and is home to 60 parks and protected areas for conservation, research, recreation, education, and ecotourism (Government of Newfoundland and Labrador, n.d.). Although there are several parks to visit scattered throughout the island of Newfoundland, many of the more frequently visited parks are at least an hour's drive away from the largest urban center of St. John's. These beloved parks are popular in the summer and early fall for activities such as camping, paddling, and hiking. Because of the distance and time commitment, many women choose to access nearby nature out of convenience. With a plethora of other options for trail systems and municipal parks just a short drive out of the city of St. John's, this offers a great alternative when time is limited.

The province of Newfoundland and Labrador has approximately 520,000 residents. A significant portion of the population resides in the urban area of St. John's, of approximately 185,565 people (Statistics Canada, 2022). Another large population resides on the west coast of the island, in Corner Brook with a population of 19,129 (Statistics Canada, 2022). Because of the large discrepancy in population density between both cities, where the participants live could potentially impact their view of what "urban" means to them. Many women mentioned they don't always make an effort to recreate in a designated park, as the city of St. John's is so close to open natural spaces, including a large urban trail system, municipal and regional parks, and the very popular East Coast Trail. Deirdre feels that living in Newfoundland and Labrador is advantageous for accessing ample natural spaces without having to access parks, specifically.

I think that living in Newfoundland, I am really spoiled and very privileged when it comes to access to nature, open space, and green space. I think that parks would be a more important part of my life if I wasn't so surrounded by lots of undeveloped crown land.

Ease of access to these locations was an important motivator in getting out to enjoy nature, while taking the time to visit a Provincial or National Park was considered more difficult or time-consuming for women who reside on the Avalon Peninsula. While most women shared memories of visiting parks regularly in their childhood, they did not access them as frequently as adults. However, all women are still taking time to access nature outside of parks and protected areas. Women who reside on the Avalon Peninsula more often choose nearby nature to spend time outdoors, while the women on the west coast of the island prefer to access the parks. This finding was surprising; however, with the geography and distribution of parks on the island of Newfoundland, Provincial and National parks are not as easily accessible.

4.3 Barriers and Facilitators

A barrier can be described as, "any factor which prevents an individual's participation in a recreation activity or limits the frequency, intensity, duration or quality of their leisure experience" (Coble et al., 2003, p. 3). All the women expressed a strong desire to get outside into parks and natural spaces for recreational, relaxation, and mental health-related motivations during the interviews. Despite having this goal, several barriers to outdoor participation became evident as they described their experiences. The participants emphasized financial and time constraints, lack of confidence, lack of

knowledge and experience, the ethic of care, and fear-based limitations as barriers. All the participants related to at least one barrier to participation in nature-based activities; however, women with more skills and experience in nature-based leisure identified with fewer barriers to access and participation.

4.3.1 Financial and Time Constraints

During the interviews, financial and time constraints were the most discussed barrier. All participants worked full-time in their careers, and as a result, the entire group acknowledged time and financial constraints as a limitation or barrier to accessing nature. These can be seen as stand-alone but are also interrelated barriers. It was evident that the cost of gear was a financial commitment and the ability and cost of getting time off work. Having limited time was mentioned by all participants. Many women who work full-time were not able to spend as much time participating in leisure or time in nature. To access areas further from their home, they must have vacation leave or take time off unpaid from work. This barrier was further outlined by the amount of time needed to travel to parks, as many are located a great distance from St. John's, where most participants live. Costs to consider when being able to access parks not only include the ability to take time off work, but also the cost of fuel for transportation, gear, park passes, and camping fees, among others. Most participants recognized that they would pursue parks-based endeavors more frequently if time and financial constraints were not an issue. Several women acknowledged that because provincial and national parks were at such a great distance, they often used nearby nature more frequently.

Farah recently started recreating in parks alone but shared that she was not always comfortable doing so because of financial barriers. She reflected, “Because before, I would depend on men to bring me places because I didn’t have money to buy a car.” Recently, she started taking trips on her own. She reflected and summarized a trip she took by herself for the first time to the Tablelands in Gros Morne after leaving a relationship. She shared that she felt empowered and inspired to do more on her own after that trip. She stated, “I think women, reclaiming spaces, reclaiming nature...your own experience in nature, it’s so powerful. So powerful.”

When asked about barriers she felt she faced as a woman accessing parks, Hannah named economic barriers, namely financial constraints. She felt if she had enough money to take time off work and to purchase quality equipment, she would be able to participate in more outdoor activities. She referred to the reality of the gender pay gap and feels women must work more to get their basic needs met.

Financial constraints. I do feel like if I had more free time without having to do that hustle for money. Oh, my God, I would definitely be hanging out in the woods and go camping way, way more. I really think, especially if I could afford good camping gear, I’d feel great. Women have to work so much to pay the rent. So, when do you have time to go camping, you know?

Jade also felt the pressure of being a single-income family with a busy schedule, but her main barrier to accessing parks was time. She is one of two participants interviewed who has a child and is a single mother who works full time. “Number one would be time. I’m a single mother and we always seem to be short on time.” She shared that she wished her

daughter wanted to spend as much time in nature as she did. She expressed that she enjoys spending time in nature-based activities with her daughter, but her daughter is at an age where she'd rather spend time with her friends. Jade said this impacted her choices around nature-based leisure and time spent in parks because of commitments and time constraints. She shared that now that her daughter is older, she feels more comfortable letting her stay with friends while she pursues outdoor activities, but it wasn't always that way.

She doesn't really accompany me anymore. She used to. She's a teenager now.

She likes time in nature, but way less of it than me. She only wants to go on short hikes. I want to go for like an hour and a half or maybe longer, but she only wants half an hour. She's going with a friend tomorrow, but she won't go with me.

Although children and family commitments can change how women access nature, it is clear that the desire to participate in nature-based activities is still present. Familial commitments are certainly a barrier that two women in this study faced but has not changed their motivations to get outside. It seemed that during a child's adolescence is the most difficult for women to take part, which is compounded by commitments to career, partners, or lack of, and other responsibilities levied onto women. At times it limited their access through lack of time, accessibility, and financial constraints. Both women shared how the activities they took part in with their children were different than how they would recreate on their own. For example, a hike may not be possible with a small child, but a short walk on the beach may be more reasonable. Anna shared how she had fears taking her grandchildren on hikes on parts of the East Coast Trail, as the trail

often runs along the cliffside. As their children got older, both women began to start accessing parks and outdoor-related pursuits more frequently and with more ease.

4.3.2 Community and Relationships

Community played a role in fostering connections to nature and bolstering confidence. Four women discussed the benefit of having guided excursions to help build their confidence and practice with skill and technique. Others mentioned the importance of the role of relationships and connection with other like-minded people. Sharing the experience of nature with others was a significant theme. Anna talked about the positive impact of a women's group she participated in called "Becoming an Outdoors Woman," which is a group that teaches women safety skills related to outdoor recreation. She attributed participation in that group and spending time in nature as having a substantial impact on increasing her confidence over the years. She believes that the messages that women are exposed to can impact confidence in trying new things. She saw the impact of barriers in women that she'd spent time with over the years. Although she still struggles with some anxiety, she is no longer triggered by fear of the unknown, and she feels safe and competent enough to hike alone without her husband. Christa described the significance of relationship and friendship in her connection with nature. She touched on the importance of shared connection and interest to strengthen and maintain relational ties. Of all women interviewed, Christa seemed to experience the least amount of limiting barriers and expressed confidence in all pursuits discussed:

I've always just kind of spent time with other females who have just done the same thing that I did. And I guess as, as I've gotten older, and evolved, I've

grown in and out of people and friendships and things like that. So as I've evolved and participated in all these activities... it was harder to maintain relationships and friendships with females who didn't participate in the same activities, and I guess we just grew apart over time.

The participants had varying knowledge, skills, and experience in outdoor recreation. Four out of the ten women interviewed had extensive knowledge and experience, and as a result, they felt that they did not experience significant barriers in access to participation. The remaining six participants identified activities they would like to participate in if they felt more confident and knowledgeable. The women shared feeling lack knowledge and confidence in outdoor pursuits as a barrier that prevented them from pursuing activities that they would like to take part in.

All the participants described sharing nature time with others, such as their partners, friends, dogs, and within-group instruction. Anna identified her husband as the person with whom she likes to experience outdoor pursuits, and Bridgette mentioned her friends and her dogs. Christa has a group of women that enjoy trail running together, and when she goes out on her own, she feels safer and more confident with her dogs. Deirdre enjoyed spending time with a friend in parks or with people from her climbing community. Emily liked to explore parks with her partner and her dog. Farah is used to exploring parks with past partners, although recently has started exploring more on her own. Gillian likes to get outside to hike and snowshoe with friends, and Hannah prefers trips with the company of her boyfriend. Isabelle enjoyed hiking during the daytime by herself, but also enjoyed spending time outdoors with family and friends. Jade preferred

to hike with her daughter and her friends but is becoming more comfortable doing shorter hikes independently.

Bridgette expressed that she did not let barriers associated with being a woman stop her from participating in the activities she wants to. She has learned to feel more comfortable by making connections in new communities or new activity settings. Although she felt intimidated at first, this is how she found confidence and community in the rock-climbing community.

I don't usually shy away from something. If I really want to do it, and there's not a lot of women doing it, I try not to let that stop me. It can be intimidating to try something new at first. But my way of managing that is buddying up really quickly with someone and finding a close pal or a group. And I find that there are those people in every activity, you're always going to find someone willing to be open and inclusive.

Like Bridgette, some of the women stated that learning about outdoor activities in a group setting helped get them outside and empowered them to learn new skills and gain a sense of confidence. Being around other women who were also learning was seen as supportive and helpful. Jade took part in a local program—Becoming an Outdoors Woman—that focuses on teaching women outdoor skills in a group setting. She felt that this helped teach her the skills and confidence she needed to break down barriers and to help her feel secure:

I don't have all the right gear and no experience doing it on my own. I'm sure there are other things I'd love to do if there was a setup. I did Becoming an

Outdoors Woman years ago. I learned skills like cross country skiing, snowshoeing, and ice fishing. That sort of thing is really empowering, and I would enjoy those sorts of guided experiences.

Anna also took part in this group over the years and shared that she learned many valuable skills. However, outside of a group setting, she still feels most comfortable exploring parks with her husband:

You know, and a belief that as silly as this sounds, now in perspective, I feel much safer with my husband, than if I was out with a group of women. Unless I knew that someone in the group was very skilled in navigation.

She expressed that she was brought up to believe that it was safer to be with men in the outdoors than with other women. She also expressed that she believes there are more men than women who partake in outdoor recreational pursuits:

Because there are more barriers to women, and that's why I believe there are more men. First of all, I believe it's innate in them more so than women. And second of all, culturally, I've been taught anyway, that it's safer to go with a male than a group of females.

She concluded this thought with what she has learned over the past few years, "Now I know it's just going with skilled people who know how to navigate." Upon reflecting on her experience with Becoming an Outdoors Woman, she expressed the significance of women coming together to learn and accomplish something. She challenges some of her past beliefs and attributes them to social conditioning such that many women are brought up to believe that they are not strong enough or cannot do something:

They didn't see themselves as being that strong. I didn't either until I tried it. And I realized by finding a group of like-minded people, that yeah, I can do this. I can enjoy it. So it's something I believe it's just our conditioning, our upbringing, messages that we've received, that we didn't even realize we were receiving. Because I'm a woman, I can't do this. The social messages, the beliefs that we are not strong enough.

Isabelle had experience in leading women's groups on hiking trips and overnight excursions. She has seen firsthand the positive impact that recreating in a supportive group setting can have on someone's confidence. Her mindset is that women are capable of anything they'd like to try and sometimes just need a boost of confidence, "I think it's important to create spaces for women to see that they're capable and enable and empower them." She has seen the influence of perceived gender roles out on the trail with the women she's worked with, especially with building fires and setting up the camp.

I think one of the things at a very simple level is, if you have a husband who will do that stuff, then you don't. You don't ever need to do it. I think that there are very specific gender roles, especially in camping and the outdoors. Society gives us these gender roles that I think transfer onto camping trips. So, if these women have been out camping, the man will traditionally set up the tent, and the fire, and I'm generalizing, but the woman won't learn how to do these things unless she asks.

Part of Isabelle's goal is to help empower women interested in learning to try these skills for themselves in a supportive and inclusive atmosphere. She believes that they don't

often take time for themselves, and when they do, they feel guilty that they have left their family for the weekend and are doing something for themselves. She explained that they often feel the need to check-in at home. She has seen many women push through these boundaries and feel proud and empowered by the skills they have learned, and the barriers they have pushed through both physically and mentally.

As previously discussed, both Anna and Jade noted that caring for a child limited the amount of time they were able to spend in leisure time outdoors, as well as the types of activities they took part in. Anna lamented how much the benefit of nature has helped her over the past several years, and that she wished she had taken part in nature-based activities all along.

I regret that it took me so long. I regret that I was 50 years old before I realized how beautiful nature is and the benefits of being in it. That's all. I wish I'd started what I really did as a kid, but looking back now, I wish when my kids were smaller, I had found ways to take them out in nature and to get around the inconvenience of it. It's more challenging when you have small kids.

Participants didn't just mention human companions as being important additions to their experiences in the outdoors. A few of the women also named their dogs as being facilitators of outdoor recreation pursuits. Dogs, by their nature, are closely connected to the natural world, and it appears for a few women, their dogs helped connect them more deeply to nature. Four out of the ten women identified their dogs as motivators for getting outdoors and into parks and natural spaces. They also acknowledged that their dogs helped to facilitate feelings of mindfulness by helping to bring them into the present

moment. A few participants mentioned that they are more motivated to get outside because of their dogs and the enjoyment that they experience. Seeing this enjoyment through their dogs' eyes helped to bring these participants into the present moment. Christa talks about how her dog helps her to get outside more, and what their relationship means to her:

He reminds me of the woman that I want to be when I'm out in nature. He's from Nitassinan so he's a real wolf dog. He's awesome. He's hardy and strong. And he perseveres all the time, doesn't care about the weather, none of that stuff. And he's my big motivator to kind of like, get out and go and do stuff. So, I love having him around.

Emily shares a similar sentiment about recreating in nature with her dogs. She discusses that they not only motivate her to get outside, but she also enjoys watching them experience nature. She talks about how she enjoys seeing her dogs in nature, and how it helps bring her into the present moment.

Life with dogs is a big part of my mindfulness and at times, just being with the animals and their energy too, and seeing how they love it so much. And the joy you get from them being able to just be dogs. One of our dogs was rescued out from Labrador, and so he came from the woods. He had some cool skills and stuff, so it's just cool to see. I love animals as much as I love nature. A big piece of us being out in nature was usually being there with our dogs when they were younger.

Along with being motivators to get outside, dogs also brought a feeling of safety while spending time in parks and natural spaces for a few participants. Christa discusses how her dog has been important emotional support and that spending time in nature with her dog also helps her feel safe to do things on her own.

He's helped me through some of the hardest times. He's been there for pretty much everything. When he's not with me it just doesn't feel right. I kind of feel like he's part of me and he's helped boost my confidence in nature and things like that. My accessibility to certain trails and certain places because I do still have fears, and I'm fearful of certain things, and I definitely wouldn't access some of the places that I have without him.

Through their stories, these women have illustrated that relationships and a sense of community help weave the motivations for accessing parks and natural spaces and support the confidence to follow through. Whether the relationship is with a child, friend, partner, beloved pet, or with a community group, it is evident that these relationships help to empower and support them. For most women, accessing parks and natural spaces with others helped them to overcome their barriers of fear and bolster their confidence in skill and knowledge while increasing feelings of safety.

4.3.3 Fear

In the context of this research, fear is defined as an emotional response to which someone may be concerned for their emotional or physical safety (Coble 2003). To varying degrees, every participant identified fear as a feeling experienced in some capacity while taking part in nature-based activities. Fears discussed were getting lost,

being unprepared, wildlife, and men. As a barrier, fear did not significantly impact some women and their choice to access parks and natural spaces. However, fear was something they stated was always present in their minds while spending time in parks. For a few women, it did affect their decision-making in participating in certain activities alone and after dark. Christa expressed fear of wildlife, namely bears. Although fearful of wildlife, only four women said that this fear has impacted their choices about recreating in parks.

Nine women expressed that they had experienced fear of men and/or fear of being attacked or sexually assaulted by men while recreating in parks. Jade stated that she would like to feel comfortable enough to camp alone one day but had fears due to potential encounters with wildlife or men: “I would just feel too vulnerable with just a little bit of nylon tenting material in between me and most likely a man, but also animals, like a coyote. It’s mostly men. It’s just an awareness.”

When discussing her fears about encountering men in parks and natural spaces, Farah recognized she struggled with finding balance in her decision-making around her fears and what held her back from doing what she would like to. She reflected, “I would depend on men to bring me places because I didn’t feel safe to go camping by myself.” Although she has stated she is still not comfortable doing all things alone, she feels empowered to be exploring parks like Gros Morne as a single woman, with her own agenda. She grappled with the dichotomy of acting out of fear versus acting with assurance and a sense of belonging in nature:

I don’t like that I’m so fear-based, but I always find it hard to find a balance between, alright name the reality, and then also like, how can you still be free? So

it's kind of interesting. It's a balance I've always been trying to figure out, but I do think – and I wouldn't want to end this interview without saying this. I do think we should go fucking camping.

Emily shared that although she has lots of experience camping with friends and with her partner, that she does not feel safe, and has never solo camped. She identified this fear as a barrier to her accessing the outdoors; “It's a barrier and it's not a fear of nature, it's more a fear of men. It's an acknowledgment of the potential vulnerability of a woman alone in that circumstance.” Anna also shared a similar view. She felt as though her fears stemmed from the way that many young women are conditioned.

My fear was of being attacked. The conditioning as a kid, I learned of women who have gotten attacked by men, some are murdered, and some were beaten. I was so afraid of the dark, of being out in the wilderness. What if people tried to take advantage of us? Those fears kept me from going because I perceived that if I stayed in my house, I was safe. And my perception was that I am not safe when I'm out in the wilderness. I didn't realize I carried it right into my adulthood.

Anna acknowledged that she had missed out on participating in outdoor experiences because of her fears. As a result, she expressed regret. She reflected that she once felt that she had no control over what could happen to her while in parks and natural spaces, which was a great source of discomfort and fear. She has been working through working on her anxiety around these fears and issues over the past several years. She no longer experiences panic attacks and anxiety when she's faced with the unknown.

Now, you know, all these years later, realizing how much joy and fulfillment that being in the outdoors brings to me and how relaxing it is. Now, I feel like why did I let those fears keep me back all those years, you know?

Anna still prefers camping and doing backcountry hiking with her husband, but she shared that she recently completed her first day-hike by herself and felt empowered to do more. She described the hike as physically and mentally challenging, and once she completed it, she felt a sense of satisfaction and accomplishment. She shared its impact on her, “It was very difficult, but I did it. And I was pretty proud of myself. It’s not something I would have done a long time ago.” Deirdre acknowledged similar fears, but they didn’t stop her from participating in the activities she enjoyed. When reflecting on a discussion she recently had with a friend regarding fear of camping alone at night, she shared, “Neither of us wants to let it hold us back. But it is just an awareness that we’re supposed to be careful alone at night because we’re women. It is a weird thing to grapple with.” Only one woman expressed that being alone in nature and fearing men was not something that she has experienced. Instead, she discussed fears around being faced with wildlife while recreating in parks.

Isabelle did not experience fear in the same way as many women interviewed. She felt empowered by her outdoor knowledge and had a lot of backcountry experience as a guide as well as in her leisure time. Additionally, she expressed a counterview to many of the women. Isabelle stated that she felt safer in the woods, rather than in an urban setting:

For me, I feel that fear is just a lack of information. And so, I just arm myself with information. And I’m tenacious, I’m like, well, this is what I want to do, so I’m

just going to go do it. My bigger concern would be other humans outside. Because people can be unpredictable. But I feel less safe in a city than I do when I'm in the woods. I think the woods are probably, for me one of the safest places I can be.

While some women can still partake in the nature-based activities they are inspired to, despite their fears, a few women expressed that they cannot fulfill their desires to take part in certain activities due to fear-based limitations. Jade shared, "I know that there's always the possibility that there is some inherent danger to being alone in nature." Many other women shared a similar sentiment. Hiking alone, camping alone, and being alone after dark were all shared concerns. While some women felt fear around being alone in parks and natural spaces, Emily felt as though she felt safest in the backcountry rather than in parks.

I have not done solo camping. I think I would have a level of alertness as a woman alone in a tent, maybe less so in the backcountry, but more so in a park where there are people around. I would have an underlying awareness about my surroundings as a woman sleeping in a tent alone in a populated area.

Emily has a friend who shares similar views, which she discussed in the interview. She shared a story from a friend who had just completed a hike that spans the length of the island of Newfoundland; the Provincial T'railway. This hiking trail is becoming increasingly popular as a thru-hike and is designated as a provincial park. It was created from the remnants of the old railway bed, and so at times, it moves through many communities, and at others, it stretches through more remote areas. To complete the whole hike would take many weeks and require sleeping along the trail in a tent. She

spoke about the anxiety about being a woman sleeping alone in a tent, close to communities, “So, I think that is not fear about nature, it’s a fear of men, and the acknowledgment of the potential vulnerability of a woman alone in that circumstance.” Safety while exploring parks and natural spaces as a solo woman was a common thread for Farah. In addition to having lived experience with mental health and trauma, Farah has been a facilitator of self-defense for women. She further discusses her struggle with wanting to feel safe and taking extra precautions when she explores natural areas. She expresses that she would like to feel safe and confident enough that she could do the activities she wants to:

I would really like to be in a mindful space where I’m safe in the world. I would love that to be my frame of thought, and I think I can get there with practice and mindfulness to not see it all as unsafe, but to practice safety and love in the world. But my goal forever has been to feel safe enough to camp by myself in a national park or something. But the barrier is safety. I do have hypervigilance, I teach self-defense, right? So obviously, that’s coming from the hypervigilance, but also kind of reality.

She struggles with knowing that she has the tools to keep herself safe but not wanting to find herself in a situation where she may have to use her self-defense skills. She is well versed in supporting women and marginalized genders to help feel safe in intimate partnerships and empowering these folks to use self-defense techniques if necessary.

We talk about the things that we need to do to feel safe. And pair that with the self-defense techniques, which would be incredibly effective if you ever have to

use them. But you know, it's kind of like a first aid course. We've got all these tools if someone is in danger, I hope I never have to use them. So, for me, I do know that I'd be able to defend myself. And I know that most women and marginalized genders already know how to defend themselves without having any type of training. We know we're smarter and stronger than the world tells us. But that doesn't move me into action with camping specifically, for example, because I just do not want to have to break someone's knee.

Deirdre didn't let fear hold her back, but she spoke about the thought process when making decisions to spend time in natural areas and parks. She expressed frustration with the juxtaposition of her confidence and the potential fear of being judged if something may happen to her. The weight of this struggle she faced was evident in the frustration she expressed:

I know that I can do anything as a woman. I don't have any reservations about hiking alone during the day. But sometimes I wonder if it is irresponsible for me to go camping alone in the middle of nowhere. That's not a fun way to feel...like, is this a reckless choice to sleep in the woods alone tonight? And it shouldn't feel like a reckless choice. It should just feel like a choice. It's not so much a fear that something could go wrong, but a fear that if anything were to happen that there would be little empathy because it would be perceived as reckless. It's kind of infuriating.

Other women shared this frustration. Bridgette is one of the women who has plenty of experience in outdoor recreation and spends a lot of time outdoors. She is often

comfortable being on her own in parks and natural spaces. She felt as though fear of her personal safety wasn't on top of her mind until others brought it to her attention.

It wasn't until I realized that people were genuinely concerned for my safety that I thought a bit about that [fear]. I know guys who have no concerns about going out and hiking and camping by themselves. I don't know many women who would do an overnight by themselves without extra precautions.

Sometimes deep-seated fear or a negative experience has left such a mark that women don't even think to access parks or natural spaces. This was the case for Farah's mother. Farah saw a positive shift in her mother after taking her to a park that she had been too fearful to go to. Farah feels that her perceived barriers and fear could stem from intergenerational trauma from her mother. Farah has found spending time in nature and parks to be very healing and hoped to share the same feeling with her mother. After seeing her mother experience what she described as mindfulness in the park, her mother expresses happiness and feelings of awe and beauty. Farah describes this experience with her mother:

So, I could tell like, maybe in the same way that I'm so conflicted with how I feel, I also have a fear. But I know it's amazing, and I saw that in her. So, I feel like this is really important, this discussion about women and our connection to nature. I do feel like connection to nature is connection of healing intergenerational trauma, and connection with each other, and safety with each other. And to be able to have access to the space that we do here, to facilitate that healing. I'm with that. And I've really noticed that mom wants that now too.

For some women, the benefits of spending time in nature are often shadowed by discomfort, fear, and negative experiences. Hannah shared a story of when she and a friend were approached by a man under the influence of alcohol while hiking on a remote trail in a park. She described her discomfort and how she felt unsafe in this interaction, “I could see him visibly sizing me up. And I felt like, am I supposed to cover up more? Is he going to follow me?” Hannah felt that her thoughts around her safety were overshadowing the experience she intended to have. Instead of spending quality time with her friend and enjoying her hike, her mind began to spiral with thoughts surrounding her personal safety, “And then my mind went in a spiral. Is he going to follow us? The trails aren’t super busy today, should we be worried?” With irritation in her voice, she concluded, “And that contradicts why we go in nature.” She and her friend decided to turn around and return to their vehicle, as they did not feel safe. Their fears and discomfort from this experience outweighed the potential benefit they had been seeking.

The fear-based barriers experienced by these women in accessing nature and parks were shared among most, to varying degrees. For some women, it stopped them from participating in certain activities, for others, it caused them to be more cautious while pursuing their hobbies, and for some women it infuriated and empowered them to push forward, despite the awareness that exists in the back of their minds. Although many women hope to feel comfortable enough to pursue certain activities alone, there appears to be a sense of understanding, unity, and empowerment in community and togetherness.

4.4 Mindfulness and Mental Health

Mindfulness can positively influence mental health. We now know that practicing mindfulness in nature can deepen this impact. Through hearing the stories and experiences from these women, it became apparent that every participant felt a strong connection to nature in one capacity or another. Whether it was from specific natural features or part of a memory, all women expressed that having a connection to nature is important to their overall health and mental well-being. Deirdre expressed the importance of her relationship and connection with nature and her desire to protect it:

Mindfulness of my thoughts and my feelings when I'm in nature really helps me understand my connection to the planet. And I think that like all of that, like falling in love and feeling connected, are like a big part of caring for something and feeling responsible for something and feeling a sense of duty toward the planet.

Nature-based experiences had a positive mental health impact on all participants. Many of the women described their experiences as providing a sense of empowerment, grounding, a sense of freedom, mental clarity, solitude, healing, and offering a dose of perspective. Emily finds her connection to nature empowering; “And it feels really, I also think there's a sense of empowerment as a woman to be doing this stuff to like it.” Jade became tearful when she began to describe how meaningful finding her connection to nature has been and how it has impacted her:

I feel lighter. I definitely feel more open. Taller, even. Especially when sometimes I just think I feel...I feel this overwhelming sense of love and connection. And

just those moments where everything just feels better and feels perfect. And you understand that everything is going to be fine. And how blessed I really am. I often think that almost every time I'm on the East Coast Trail, I think, oh my God, I'm so blessed to live in this part of the world, and this is my back door. I feel blessed. I feel alive.

Other participants echoed similar feelings of finding deep connections. Hannah described feeling a sense of awe and wonder as well as the importance of slowing down and searching deeper when connecting to nature:

And when I go out into nature if you really allow yourself to just breathe and smell the earth and touch a tree and just have this sense of wonder. Our essence comes from the earth, and from the trees, and from the stars and the ocean. And even in the winter, an icicle hanging on the tree, and the sun catches through it...it's humbling. If I ever feel anxious or stressed, I just know I'm going to go outside.

All women acknowledged having experienced some form of struggle with their mental health in the past and/or present. Stress, anxiety, depression, postpartum depression, phobias, and addiction were identified contributors. All sources of stress discussed during the interviews were tied to work, study, relationships, or a culmination of the above. As symptoms and feelings related to stress manifest differently for individuals, I felt it was important to explore the personification of these experiences for participants. Participants were asked to discuss the embodiment of stress and anxiety in their lives. Descriptors and experiences were wide-ranging but are best represented

through the women's words. Jade discusses the embodiment of stress and anxiety through muscle tightness, "I feel condensed... constricted. My whole stomach clenches. My whole body is tight. And I tend to speed up when I'm talking. My actions are very rigid." Deirdre had similar experiences but described the embodiment of stress and anxiety through having difficulty breathing.

I often will feel it in my chest. I feel like I can't breathe, like if I was prone to panic attacks. So, this feeling like I can't breathe, there's not enough oxygen on Earth, or that my lungs are too small or something like that. I also feel it in my stomach, I have a lot of anxious stomach aches, a lot of nausea. And in my muscles, I have a lot of muscle tension, a lot of clenching, and knots.

Participants described other effects such as chronic pain, TMJ, the inability to relax or slow down, staying too busy and distracted, teeth grinding, sweating, muscle tightness, fatigue, brain fog, and insomnia. Being mindful of the embodiment of stress and anxiety was something that most women could describe experiencing. Coping mechanisms of how to handle their feelings were discussed and included breathing techniques, reaching out to a loved one for support, taking time away from the task or the conversation causing stress, and above all, spending time in nature. All women named spending time outside a helpful coping strategy for feelings of stress and anxiety. Most said that just being outside helped relieve the symptoms, and a few discussed the benefits of green exercise for mental health.

4.4.1 Mental Health Benefits of Nature

Although all participants experience semi-chronic symptoms of stress and anxiety, they all identified spending time in nature as a helpful coping mechanism. Spending time in nature has been proven to help reduce feelings of stress and anxiety, help to calm and balance the sympathetic and parasympathetic nervous system, improve immune function, and lower blood pressure and stress hormones (Hart, 2016). It has also been shown to reduce anxiety, depression, symptoms of attention disorders, and have an emotionally, mentally, and spiritually restorative effect, which assists in elevated mood, cognitive function, and increased feelings of positive emotion and relaxation (Park et al., 2001; Swami et al., 2020). Jade feels almost immediate positive mental health effects when she spends time outside, participating in green exercise like walking or hiking.

I always feel better. Especially if I'm feeling stressed or angry, or all those negative feelings. Sometimes I will make a point of going for a walk, not in the city, but along the trail or for a hike. And the effects are almost immediate. As soon as I just get away and get to the trail, I feel better and progressively better as I walk.

Other participants related to the positive mental and physical benefits that spending even a short amount of time in parks and natural spaces can provide. Participants named mental clarity, perspective, rejuvenation, and a sense of grounding as the mental health benefits they experienced while spending time in parks and natural spaces. One of the participants described spending time in nature as a "complete reset," for their busy mind, and another as helping to center them and bring them "back to reality." The solitude and

a sense of being “away,” from urban life and personal commitments were themes that helped contribute to a positive mental state for participants. Emily finds that the natural features unique to the Newfoundland and Labrador landscape help bring her to a mindful state that facilitates a feeling of escape from the stresses of her life.

And it's the fjords and the severity of the rock. I love the kind of rugged beauty of Newfoundland and the features that we have. So, for me, it's like getting totally removed from life. And it feels like you're on such an adventure.

Nature-based experiences played a role for Deirdre in helping to manage her stress levels during the beginning of the pandemic and lockdowns. The stress of the current COVID-19 pandemic played a role in Deirdre's frequency of access to nature, as well as her motivation. She shared that she struggled to overcome intense feelings of stress and anxiety during this time. During a two-week visit to Burgeo Provincial Park, she had a powerful experience that positively impacted her mental health. Of note was a sunset that she caught while sitting on the beach by herself and reflecting.

I was so aware of the colours and their intensity, and it was just really nice to feel something again after the spring. And to feel really in awe at the magic and beauty of the planet, in the aftermath of the first lockdown of the pandemic. It was really powerful.

In the past, Emily has struggled with burn-out and poor mental health about her work. She found herself overburdened and didn't feel supported in her work environment, and as a result, developed some unhealthy coping mechanisms to deal with the stress. She was able to find healthier coping mechanisms through spending time in nature and was

able to overcome the self-sabotaging habits that she developed in response to her stressful work environment, “I lost my relationship with myself. And I think that’s what being in nature gives me- a relationship with myself through the relationship with nature.”

Spending time in natural spaces has offered these women the opportunity to take positive steps in reclaiming their personal power and autonomy of their own health and well-being. Whether viewing natural features that sparked interest, being away from urban distractions or being physically active in a natural setting, all women cited spending time in parks and natural spaces as an important coping mechanism for their mental health and well-being.

4.4.2 Mindfulness

The women interviewed for this study had a strong baseline understanding and practice of mindfulness. The participants were first asked to define what mindfulness meant to them, and they were given the definition that would provide the framework for this study. Mindfulness is defined as the act of being in the present moment and being aware of your senses. From their responses, a common theme of understanding of a mindfulness practice emerged as the act of being present with mental state, emotions, and senses. All ten participants identified with having a practice or experiences of mindfulness. These ranged from deliberate participation in mindfulness techniques through meditation to finding mindful moments incidentally. Jade connected mindfulness to her awareness of her breath, “and I can change things in one breath. It’s a very empowering practice.”

Each woman explained mindfulness as being engaged in the present moment. Bridgette described it as, “Being present and giving myself the space to work through things. I become aware of my body and my mind.” Many identified that they were familiar with mindfulness by simply spending time in nature, observing nature meditatively, and participating in green exercises such as hiking, rock climbing, paddling, and other outdoor pursuits. Others experienced it deliberately through practicing breathing techniques, meditation, and visualization exercises. Deirdre referred to mindfulness as a technique for paying attention to what emotions were coming up in her body and monitoring her thoughts. She describes mindfulness as, “being in the moment. Mindfulness is paying attention to what’s happening around me and also paying attention to what’s happening inside of me. It’s having a level of consciousness or awareness around what’s happening right now.” Other women identified it as part of slowing down and eliminating external chatter and disturbances. Emily named non-judgment as an essential aspect of mindfulness and expressed that it was a way of experiencing healing from trauma and feeling safe in her body, “That’s what mindfulness has been like for me. Just feeling safe in my body and learning to stick with whatever comes up.” By being present with her feelings and emotions, she could detach from judging them. Anna uses mindfulness as a way to define her relationship with nature more directly:

For me, mindfulness is when I get out of my vehicle and put on my hiking boots and my backpack. It's when I am in nature, and I can focus on what’s around me. The sound of the river puts me in a great place of mindfulness. The birds, the lack of electronics, always ringing communication with others. So, for me,

mindfulness is in a state of being fully aware of my surroundings and being comforted by the peacefulness of it.

Jade had a similar view of mindfulness and said she liked to access mindfulness from sitting in silence and meditating. Although she could access a peaceful state that way, she summarized, “But being outside in nature and hiking, that’s what brings me in the most. My mind still wanders, but I have more moments when I want to pause.” Jade found that the calming effects of nature -the sights and sounds- helped bring her to this state with the most ease. A state of awareness of emotion and thoughts was also mentioned as an important aspect of facilitating a mindful state. Hannah was one of the more experienced practitioners of mindfulness and shared that she practiced mindfulness through a meditation practice every morning to check in with her thoughts before her day began.

4.4.3 Green Exercise

Most women related to some mindfulness-based activities that included a green exercise component. Several adventure-based exercise pursuits were named, such as rock climbing, kayaking, hiking, and trail running. Many participants identified a feeling like they were in the present moment during these activities. Deirdre recognized that activities like polar dipping in the winter and biking on trails help put her into the moment and, “into my body, senses, and out of my head.” Bridgette shared how climbing helped facilitate the strongest connection to a mindful state.

Climbing is interesting because I find that it’s the one time that I am hyper-focused on what I am doing. I alluded to my busy mind numerous times, and climbing is the only activity where I feel that I am focused 100% using my body

to do something, but my mind is also not wandering, it's not thinking of anything else. My mind is 100% on where my hand is going next.

Deirdre also made a connection to the mindfulness that climbing provided her. She described it as being in a state of heightened awareness.

It's one of the things that I really like about rock climbing. I find that while I'm climbing, I'm very in the moment and I'm very aware of what I'm doing with my hands and what I'm doing with my feet. I'm very aware of the texture of the rock and the wind direction and all of that.

She also mentioned hiking as an activity that elicited mindfulness for her, as it captured her soft fascination. Although green exercise can elicit feelings of mindfulness through intense focus and physical effort, spending more relaxed time in nature without an objective was also beneficial for her mental health. Camping provided this feeling for her, where she describes the mindfulness of camping as:

I really like after dinner just strolling around and taking stuff in, and not for a purpose. Not to exercise or to accomplish an objective, but just to be outdoors. I really like waking up in the morning when I'm camping and just being outdoors and waiting for the water to boil and just hanging out with myself outside.

Hannah found comfort and release in biking. She discussed the mental health benefits of riding her bike in nature and experiencing exercise in an immersive and "intense way."

Emily also found that riding her bike to work through the trails helped her to manage her day-to-day stress and to create a healthy balance between her work and personal life, "Riding back and forth to work is great for mindfulness and mental health. I'm able to

shift out of work and not carry that home. Being outside helps keep me grounded and able to do the work I do.” A higher intensity of green exercise was also beneficial to Christa’s mental health. She discusses the importance of nature in managing her stress and anxiety symptoms through participating in green exercise.

So, for me spending time in nature lessens the impact that certain stressors and anxieties have on me. The more that my physical activity is regular, more routine, the better off I am, day-to-day. In terms of my mental health, that helps me just handle the day-to-day stressors a lot easier, and with ease more so than when I don't exercise. I really notice a difference in my mental health in the wintertime because I take winters off from running. I do cross country ski and snowshoe more, but I find that physical activity doesn't have the same effect on my body as what running does.

By experiencing physical activity outdoors, the positive impacts from both exercise and nature exposure were amplified for the participant. The two components work in harmony to positively influence all health domains, including physical, cognitive, spiritual, and emotional (Pretty et al., 2005).

Green exercise was a common means of experiencing mindfulness with the women. Many discussed how hiking, biking, swimming, and rock climbing helped to facilitate the greater awareness and presence they felt in their bodies and minds. Deirdre found that experiencing mindfulness in nature during green exercise brought her into the present moment by allowing her attention to be captured organically. She finds that part of mindfulness in nature is being at peace with going with the flow of nature and what

presents itself. An example she gave was while she was coaching children's outdoor rock climbing near the ocean, a pod of dolphins captured the children's attention. As a result of this experience, the group stopped what they were doing and watched in fascination. She describes this process as:

Just allowing yourself to be captivated by those kinds of moments. And to be deterred from your mission. And you know, distracted from your purpose by like the magic of what is happening around you. I think that is like part of falling in love with the places that you live and the places that you play.

Isabelle experienced mindfulness most during green exercise. Here, she reflects on a photograph she took of a sunset while riding her bike in Terra Nova National Park and stopped to capture it. She alludes to how mindfulness inspired by natural features is like finding peace and clarity within.

It's kind of like, things just settle. I think about the inner workings of a clock when like it comes together. Like that's what it feels like happens inside. It's like things just kind of like... they've all been fragmented, and they kind of all just come back together. And I feel clear, my mind feels clear, the fog goes away. I feel happiness in my stomach. I don't even know how to describe it. It's just a ball of happiness, like you don't need to be doing anything else.

Emily said she experiences a deep level of happiness while taking part in green exercise. She expressed what embodiment felt like to her. To Emily, being active elicits a state of mindfulness, which is amplified by experiencing it in nature.

When I'm in nature, I just feel happy, and it makes my body feel relaxed. I do like being active. I like how it feels when you've gone for a hike; being thankful to your body for getting you through something like that feels nice as well.

Emily found the traditional practice of mindfulness and meditation to be too difficult to concentrate, so she preferred to use green exercise to facilitate the experience.

4.4.3.1 Embodiment of Mindfulness in Nature

Spending time in nature as a mindfulness facilitator was a strong theme with all of the women interviewed. There was a strong correlation between spending time in natural spaces, namely parks, and perceived positive outcomes with their mental health.

Engaging in nature-based mindfulness can be experienced in the mind as well as in a felt sense in the body. Through this embodiment, individuals can experience greater awareness of their bodies. For some women, they experienced embodiment by simply observing natural features. For others, green exercise helped them to experience the embodiment of mindfulness. Whereas embodiment of stress and anxiety had a range of negative impacts on the mental and physical health of the women, the embodiment of experiencing mindfulness in nature was profoundly positive. Deirdre described how she experienced embodiment through a feeling of comfort and grounding.

If I could add anything to that it would be feeling grounded and connected. When I am outdoors, I'm often really aware of my feet on the earth and the earth supporting me and just feeling very directly connected to the planet. I'm often I'm often barefoot. And just feeling really connected to a giant organism is very comforting.

Participants described the embodiment of mindfulness as finding a state of complete relaxation, softness, ease, and being able to fully and completely exhale. Farah described peace and relaxation when she spends time outside, “I love lying down next to the ocean and just listening and feeling my body on the grass.” Most women identified difficulty in being able to access a state of mindfulness due to racing thoughts, stress, and an inability to focus. However, they expressed that mindfulness could bring them into the present moment and be aware of their surroundings. Bridgette finds that practicing mindfulness in nature brings her more in tune with her body. It helps her to appreciate her health and her strength.

I always marvel at the physical mechanics of my body and the capabilities of my legs. Sometimes when I’m hiking, I think about how impressive it is that my legs are powering me to keep moving forward and feeling that strength and level of health and capability. When I’ve been hiking for some time, then there is a quietening of the mind and more of an ease.

Anna also experienced mental and physical embodiment while spending time in natural spaces but found it difficult to verbalize. She stated that she becomes more aware of her body and mind when experiencing mindfulness in nature.

I’m more aware of my surroundings. I don’t know how to explain it, except to say that I become more aware of my body and my mind. I become very aware of the weight of my body. I can feel my limbs and my head and my neck.

4.4.3.2 *Natural Features*

As the women had varying levels of experience in nature, I felt it was important to discuss what natural features made the women feel most mindful or what features helped elicit mindfulness while viewing or experiencing it. Water features were the most frequently cited, the ocean, the beach, ponds, and the feeling of rain. Trees were mentioned second-most frequently, with tuckamore² trees given special attention. Jade explained that the twisting and turning of the knots, and the variation in the branches always captured her attention. She also described her attraction to organic shapes and lines of the trails:

I find [mindfulness] with winding trails a lot. I love the look of the soft lines curving with being surrounded by trees, where you can only see part of the trail, or the tall grass. I love the lines of the trail. And the ocean in the background, ocean, and hills. I love trees. Like especially the old trees with knots, the ones with lots of twists. There's a tree along the trail up there behind the hospital. And it's just beautiful. The trunk is all twisted and gnarly and the branches go up in every direction. It's gorgeous.

The wind and the fresh air were also contributors to feelings of reaching a state of mindfulness. Watching wildlife was also mentioned, with participants naming caribou, whales, dolphins, and birds as facilitators of instilling feelings of awe and mindfulness. Farah named the ocean as a powerful feature that helps connect her to a sense of solitude

² A tuckamore tree is a word local to Newfoundland and Labrador. It references a stunted black spruce tree that grows on the coast. These trees become stunted from the harsh coastal conditions.

as well as something greater, “And solitude next to the ocean. I’m definitely part of the world, and it’s a safe place. It’s a place of love. And that is where I get that clarity. I don’t know why, but I think it’s the vastness of it.” Spending time outdoors also served as a medium for processing difficult emotions. Isabelle describes it as, “whenever I’m feeling things that are hard to sit with, going outside, it doesn’t get rid of that feeling, but it helps me process it. And it feels like I’m with a good friend.”

Many participants described the experience of soft fascination while being in nature. Soft fascination is when natural features effortlessly capture ones’ attention. It helps to relax the mind and takes minimal effort (Kaplan, 1995). Emily described how being drawn to natural features helps her connect with all of her senses and become more mindful while spending time in nature.

I find myself noticing everything around me so much and almost just like drinking it in. It's so lovely, and even, you know, the smallest little spot of woods you're in there's so much to see. I love moss and I love mushrooms and I really enjoy foraging and berry picking. I just think there's so much beauty to see and it really...yeah just kind of feeds your soul to be around all of that. And the smells and sounds. So, I think being in nature for me almost forces me into the present moment.

A common theme with most women was that spending time immersed in parks and around natural features offered a feeling of perspective. Taking part in nature-based activities offered an opportunity to take a step back and come into the present moment, where uncomfortable feelings around work, relationships, school, and family obligations

could be scaled appropriately. Anna describes the impact of experiencing mindfulness in nature on her mental health:

It helps me to put in perspective, what's important to me in my life, and how unimportant things are that I was putting mental energy into. And it's when I'm in nature, and I can focus on what's around me. The sound of the river puts me in a great place of mindfulness...the birds, the lack of electronics, always ringing communication with others. So, for me, mindfulness is in a state of being fully aware of my surroundings and being comforted by my surroundings...the peacefulness of it.

Deirdre shared her struggle with her problems getting out of context and becoming so big that she would feel overwhelmed by their weight and size. She described how natural features helped facilitate a mindful state to bring her back to a place of grounding, where she can find her footing and allow things to shift back into perspective.

I feel that way when I look at the ocean. Anytime that I see the ocean it's just cool to realize that the ocean is big and that I am so small. But it's also cool when it feels like my feelings are really big, it often feels like they don't fit in my house or my life. But when I'm surrounded by several kilometers of open space and ocean, my feelings are proportionate. They're in proportion with my surroundings. When I'm surrounded by big things, my big feelings make more sense.

Gillian has a newly formed connection to nature and mindfulness. She shared that spending time in nature has only become a priority since moving to Canada. She identified that this discovery of nature and mindfulness has helped connect and appreciate

nature on a deeper and more meaningful level. Her experience of nature on her mental health is described as:

Relaxed. I kind of forget what I'm doing. And I feel like I'm kind of just focused on what I'm experiencing at the moment, and I don't think about anything else. I didn't have that connection with nature [at home]. And to come here and have these hikes...and at the end of every hike, you see an ocean, there's a mountain. That connection [helps me to] take some time to think about what is happening and to enjoy what is there and to appreciate the nature that I am seeing. Most of the time, I would want to go on a hike or go to some of these places if I have some challenges mentally.

Although the women all experienced mindfulness in their own unique ways, it is clear through their reflections that they experienced mindfulness in parks and nature-based settings. All women described the positive mental health impacts of experiencing mindfulness in nature in both body and mind. The description of how they experienced the embodiment of mindfulness was in stark contrast to how they embodied stress and anxiety. Many of the feelings described connected to clarity, peace, grounding, and positive physical sensations in their bodies.

Looking at the data collected from the conversations, all women expressed they had experienced a mindful state facilitated by time spent in nature or from their attention being captured by specific natural features. To investigate this further, how the women experienced mindfulness in their bodies and what inspired them to capture mindful moments through their photography was examined.

4.4.4 Photographs

Photo elicitation was used to explore the stories of the women through their photographs. Each participant provided a minimum of five photographs from their time spent in Newfoundland parks that elicited a feeling of mindfulness to discuss during their interview. The photos could have elicited feelings of mindfulness at the moment or elicited feelings of mindfulness when looking back at them. The photos contained themes; many with natural features, and others that displayed selfies, loved ones, special memories, or . The primary natural feature themes included water, trees or forests, and sunsets.

A total of 59 photographs were submitted by participants collectively. To determine themes, I looked at each one to choose the captured main features. These features were also discussed during the interview process. Some pictures had more than one feature that was accounted for in the chart below. Words from the “significance,” column are words used directly from the participants.

Table 2
Features photographed and meanings.

Feature	# Of appearances	Significance
Water feature (waterfall, river, ocean, pond)	19	Happiness, inspiration, beauty, mindfulness, peace
Landscape/Vista/Mountain top	18	Empowerment, peace, body appreciation, personal challenge, ruggedness, adventure, overcoming fears, spirituality
Selfies	17	Accomplishment, happiness, empowerment
Forest/trees	14	Perspective, spirituality, curiosity, ruggedness, energetic shifts, protection, wonder
Beach	11	Spirituality, beauty, solitude

Loved one (human or pet)	8	Community, memory, friendship
Sunset	6	Perspective, magic, fascination, spirituality, beauty, peace, transcendence, solitude, healing, awe
Green Exercise/Camping	6	Pride, accomplishment, empowerment
Wildlife	3	Awe, magic, beauty

All of the photographs chosen by the women contained features or stories that elicited feelings of mindfulness. During the interviews, they were asked to describe what features they were drawn to capture and what about them provoked feelings of mindfulness for them at that moment. Water features were the most photographed subjects and included waterfalls, the ocean, ponds, and rivers. Most women described water features as the most facilitating for a mindful state. Following closely behind were landscape photos of vistas. These photos were primarily associated with words such as empowerment, spirituality, and adventure. Many women chose to include photos of themselves, and all stories around the “selfies” included descriptors around achievement, empowerment, and happiness. Although many of the photos did not contain people, most of the stories from the photographs described a memory associated with a relationship with a partner, child, friend, or pet. In looking at the natural features that elicit and support mindfulness for these women, it is evident that mindfulness in natural spaces not only provides recreational and social rewards but is also instrumental in supporting positive mental health benefits.

Mindfulness appeared to have taken place two-fold; once while being in the moment of taking the picture, and once again during the interview while discussing the

features and reminiscing. Many women acknowledged that discussing the photographs and the memories made them want to return to that place. The major themes of feeling present in the photographs included peace, spirituality, happiness, empowerment, accomplishment, solitude, community, awe, and recognition of beauty. Many of these themes prompted the motivations behind taking the pictures.

Some participants captured sunsets because they prompted feelings of awe and a connection to their spirituality. Deirdre reflected on her photographs of the sunrise and sunset and marveled at the memory it stirred of her trip to Burgeo Provincial Park, “The sky always amazes me, the grandness of it.” The aspect of mindfulness that came into play for her was about the wind, and how it felt on her body: “I love the wind. I love the way that it feels to have the wind moving around me. I love the way that it smells outdoors, and it’s really easy to take a big deep breath.”

Bridgette was inspired to take photographs of natural features that she felt were beautiful and described as making her happy. These features included rugged cliffs, snow, sunsets, and blue skies. Curvature and organic lines inspired Jade to take photos. She enjoyed taking photos of winding paths and knotted trees with irregular branches. To her, that elicited a feeling of mindfulness.

Seeing wildlife in their natural habitat was a draw for many women to take photographs. One participant described what it was like seeing caribou for the first time and having the opportunity to be close enough to take a photograph of them. She described it as being in complete awe of their presence and being one of the most beautiful moments of her life.

Other motivations for taking the photos discussed were based on relationships and community. Many photos included other individuals, sometimes a partner, child, or a pet. The stories unfolded around these individuals and prompted the discussion of memories associated with the trip. Most of Anna's pictures were of her and her husband, and Christa had many pictures of her with her dog. Hannah had pictures of her friends recreating in parks. Although many of the photos did not have people as subjects, the stories surrounding the memories contained rich information on relationships and a sense of community while accessing parks and natural spaces.

Accomplishment was a theme that inspired photographs to be taken by Anna. She reflected on one of her photographs and the accomplishment finishing the hike she was on. In another photo, she had just learned how to ski with her husband. Revisiting these memories allowed her to reflect on the empowerment she experienced that day. Many other participants reflected on their photographs from trips with others, either a partner, a friend, or their pet.

4.5 Mindfulness and Stewardship

Mindfulness has the potential to help increase feelings of stewardship. During the interviews, stewardship was defined as feelings of wanting to protect the environment and taking action with pro-environmental behaviour. Using this definition, all participants felt they were stewards of the environment. Christa and her partner make an effort to clean up litter they see, have an at-home compost, and try to be as environmentally conscious as possible. Every participant felt that taking steps to protect parks and natural spaces was critical. All participants believed this sentiment who felt that mindfully

experiencing nature can help foster a desire to want to protect it. Engaging in mindfulness helped lead participants to appreciate natural spaces and parks. Without mindfulness, there is no appreciation, and without appreciation, there is no motivation for pro-environmental behaviour. Deirdre described her connection with mindfulness and stewardship as, “I think with mindfulness...when you realize that there is this connection and this respect of life and then that kind of spills over into wanting to protect the environment around you.” Hannah summarized her experience with the relationship between practicing stewardship, nature appreciation, and her mindfulness practice.

And I think the way mindfulness of your surroundings, and the small details around you, and the plants and the animals and the wind and the stars, I think that mindfulness of that detail has helped me to fall in love with the planet.

Christa found that when she experiences mindfulness in nature, it helps to improve aspects of her mental health and captures her focused attention and inspires feelings of appreciation for what is happening around her.

I find when I'm practicing mindfulness, those things typically contribute to better mental health for me. I think it is a great grounding exercise because depending on what time of the year it is, there's always something to catch your attention and to kind of marvel over, whether it's the snow, or you've just had freezing rain, and the way that the light catches the twigs that are now frozen. Or it's noticing the blueberry bushes or bakeapples starting to come out as berries and marveling at it.

Environmental protection through parks was also a theme for some of the women.

Although Deirdre preferred to spend time in undesignated green spaces, she recognized

the importance of parks and protected areas. She acknowledged how lucky people are on the island of Newfoundland to have so much undeveloped space, and compared to other provinces, there is a lot less need for protection due to our lower population and less need for development. When talking about one of her favourite places to hike, she and a friend realized that it was not a protected area and could potentially be at risk for development one day, “It should be protected. I like having this green space right outside the city and I definitely would not want to lose that, so I can see the advantage of protected areas.” When discussing her feelings around stewardship, Deirdre said she did not feel like she could identify with the word, itself.

I don't feel like it captures my relationship with the environment. It feels stiff and foreign. I feel very attached to the natural spaces that I frequent, and I feel very defensive of them. I feel that the idea of managing the environment is very loaded. It establishes a hierarchy where humans are above nature. And I definitely feel more like a very small part of nature. Like I am small part of a larger whole. And I try to define my duties through that mindset.

The mindfulness experiences that these women discussed have all helped to facilitate deeper understanding and connection to the natural world around them. As a result, it has led many to want to help advocate for protecting these areas. Through the interviews, many women felt a deep connection to certain parks and natural spaces that they frequented. Many felt a duty to protect these areas for the continued use and enjoyment, appreciation, and intrinsic value they hold. Jade feels it is important to share this message with others so that other people can experience the value that nature has to

offer, “We know this from experience that these things are very important and very healing. I would love to see more of an effort put into educating people and making protecting these natural spaces the priority.” She believes the answer could be getting families outside and participating in nature-based activities to help promote stewardship and pro-environmental behaviour.

4.5.1 Human Impact

Traces of human impact can be seen in many parks and natural spaces. Examples include litter, damage or overused of trails, noise disturbance, infrastructure, and development. Participants acknowledged that seeing traces of human impact while recreating or spending time in natural spaces impacted their experience and, ultimately, their mindfulness practice. The most frequently mentioned type of impact was litter. Jade expressed that she was surprised that other people did not have the same respect and reverence for nature and wanted to protect it like her. “And it's it I feel like every time I see it, it is as gut-wrenching as, as the first time it's, it is heartbreaking that we don't have more respect for the absolute beauty that we have around us.” Litter was the primary concern and included single-use plastics, toilet paper, and coffee cups. Most participants identified anger, frustration, heartbreak, disappointment, and sadness when seeing litter on the trail. Seeing these signs of human impact had a significant effect on the mindful state of participants while spending time in nature. Although other types of human disturbance were mentioned, including urban noise and pollution, most women identified seeing litter as the most negatively impacting experience. Bridgette felt like seeing litter impacted her mindfulness practice.

I feel frustrated. It interrupts your mindfulness and the progress that you've made. It definitely acts as a barrier to that. I don't know that it necessarily makes me regress, but it stalls it. So then your attention is changing, you're frustrated, and you're having that mental conversation of, "Why do people do this? Why couldn't they just bring it out with them?" And then you have to refocus to get back on track. And depending on the level of litter, that might take a while.

Isabelle took the concept of litter even further, and outside of parks space to a deeper issue regarding urbanization in our communities. She expressed frustration with urban buildings, empty lots, and big box stores as the "litter," we should most be concerned. She believes that as a society, we need to start thinking about stewardship not only within the boundaries of parks themselves but toward how we build our communities. She perceived large-scale development in urban areas as a bigger issue and as a reflection of our values as a society. Deirdre shared a similar sentiment that things like litter on the trails stem from a much larger issue and perhaps a larger disconnection.

I am aware that people dropping Tim Horton's cups on the trail is a smaller problem than the infinite production of more and more Tim Horton's cups. And it's sad to see them because it's a reminder of the state of things.

A few women mentioned disconnection from nature as being a precursor to lack of appreciation. How does one foster appreciation and pro-environmental behaviour if they don't love or understand what they are protecting? Isabelle describes this disconnect as;

I think society has become so disconnected, and we see nature as something separate from us. Nature is something we go and do. It's not something we're a

part of. It's something separate from us. And if you don't have time in your family to put in nature, I don't know what triggers that feeling of stewardship?

Other women said that seeing the results of human impact and litter interrupted their mindful state, which negatively influenced their overall experience. “It interrupts your mindfulness and all the progress that you've made, it acts as a barrier to that.” It was noted that since the pandemic began, more and more people are spending time exploring natural spaces. Christa recognized that higher usage of parks is ultimately more beneficial to our populations’ health and well-being, but also found it disheartening that many people appear unfamiliar with Leave No Trace principles³, a lack of knowledge around trail etiquette, or just have a general disregard for nature. Bridgette also felt this way and felt that the more people use the trails, the more litter we may continue to see.

And so that I find that equally frustrating because I definitely can see that more people are using the outdoors and that's a really good thing. More and more people are using our trails and our provincial parks. But it also that means there's more and more litter. And that's a bit disheartening to just have been someone who has been availing of the trails and the parks for so long to see the mass influx of people, and that a habit associated with a mass influx of litter is a bit frustrating.

Bridgette continues to discuss the impact of a lack of stewardship in our parks. Her perspective outlined the fact that Newfoundland and Labrador has an extensive parks

³ Leave No Trace is a set of principles that outline ways to minimize human impact while recreating in the outdoors.

system that we are fortunate to have, but it seems many people are not aware of how fortunate we are. She discusses the impact that it has on her experience and her mindset.

I have a lot of friends who are not from Newfoundland, and they come here, and they will talk about how Newfoundland is one of the most beautiful places that they've been to, and yet we treat our nature like shit. And sorry- we litter. We throw our pee-stained toilet paper into the woods, there are juice boxes and beer cans, and glass litter in our forests and our parks. And I feel like every time I see it, it is as gut-wrenching as the first time it's, it is heartbreaking that we don't have more respect for the absolute beauty that we have around us.

There is a clear consensus that finding litter in parks and natural spaces has a negative impact on several of the women. In her experience, Christa has found that littering in Newfoundland seems to be worse than in other parts of the country, and she finds it frustrating. It also impacts her experience while recreating and trying to enjoy her time outside.

There's absolutely nothing worse when you're in the backcountry and you see a Tim Horton's cup and you're wondering how the hell did that get all the way in here? And it blows my mind. The amount of garbage and trash that is in the woods is disgusting. And Newfoundlanders specifically are so bad at it. I find it worse here in places than I have in other places I've lived or visited for sure. It can have a negative effect on my experience of being in nature.

Bridgette echoes this sentiment and describes the importance of continuing to protect these areas and the importance of educating users. She outlines the important role that

parks play in protecting ecosystems while providing enjoyment for users and their role in advocating for citizens' physical and mental health outcomes.

Relationship plays a role in how Bridgette views feelings of stewardship. She shared how she learned the importance of it from her mother. "It's something that's very important to me, and it always has been. And I guess I can thank my mom specifically for that because I've learned a lot of those things from her." Having a mentor to help foster feelings of stewardship by example was also the experience of Emily, who shared it was her partner that helped connect her more deeply to the parks system. Christa was raised in a family who accessed nature frequently and had a deep love for the outdoors. In terms of stewardship and pro-environmental behaviour, she feels her behaviours are modeled from what she learned as a child and the relationship her parents had with nature.

My parents are much more environmentally concerned than their siblings, or people who didn't necessarily grow up with that same love of the outdoors. We are the type of people who really focus on leaving no trace, and how we can best follow what is outlined for us as to how to use the systems that we are blessed to have.

Other women identified influence from relationships in guiding their ideas and practice around stewardship and pro-environmental behaviour. For some, it was spending time around likeminded individuals, and for others, it was learning from those with lived experience. Relationships can be seen as part of the framework that supports pro-environmental behaviour in parks and protected areas, and mindfulness is the common thread weaving it together.

4.6 Connection to Nature

Nature connectedness can be defined as how individuals relate to nature as part of their identity, personal values, and how they interact (Howell et al., 2013; Wright & Matthews, 2014). In their work, Mayer and McPherson Frantz describe it as an “‘individuals’ experiential sense of oneness with the natural world” (2004, p. 504). The women interviewed for this study all demonstrated the importance of their connection to nature, whether it was through parks or natural spaces. Farah summarized the importance of this connection on an intrinsic level; that we are part of nature, and it is deeply embedded within us. She had trouble verbalizing it, but the sentiment was clear. “I don’t know how to name it because it’s beyond my understanding. We need to be like animals in the woods, next to the ocean. I need to give that to my body. I just know it’s really good.” This unnamed feeling of wanting and needing connection was felt by others, too. Since her recent move to Canada, Gillian has learned nature's importance in her life.

Realizing what nature means to me, and how I feel so happy when I’m in nature...It has made me realize how I’ve missed it, how I didn’t understand it, and now the importance that it’s playing in my life. I’m happy being here and happy realizing that nature has a lot to do for me. It’s new to me, and I am still learning, but it’s given me a different perspective.

Though stewardship and appreciation for parks and natural spaces may be learned from relationships, it is also, perhaps, innately embedded within us. Although many people may not recognize it, it seems that practicing mindfulness could be the thread to weave a connection to self through mental health, to nature through stewardship, and to others

through community. By actively being present with our senses and our surroundings, we can begin to build a greater appreciation for the environment around us. Perhaps this could be the link to building connection over time through experiencing embodiment and mindfulness in protected areas and parks.

Christa believes that there is an inherent connection between people who practice mindfulness and being a steward of the environment. From her experience, many of her close friends are like-minded and share the same values as her when it comes to nature. She explained that to have a desire to want to protect nature, you have to appreciate it.

When I think of my close circle of friends and the people that I spend the most time with- those are people who I would call very mindful people. And they're also really big stewards of nature. I find that people who are stewards of nature are also really mindful and draw from experiences in the same way that I do. I do think there's a connection there.

Deirdre also believes that there is a connection between caring for the environment and mindfulness. Without mindfulness of our surroundings, it is unlikely that we will understand it or desire to protect it. Hannah believes that a connection is important to facilitate pro-environmental behaviour: "I think that you need to have a certain level of connection to whatever it is you're trying to see. I think that it's difficult to care about things that you're not connected to in some way."

The findings from this research have shown a strong correlation between practicing mindfulness in parks and having feelings of stewardship toward the environment. A sense of deep connection to nature for all these women is evident.

Whether learned and conditioned from an early age or fostered through a relationship as an adult, it is apparent that this connection serves a greater good for the overall physical and mental health and well-being of these women. Further, it can be concluded that mindfulness in parks helps facilitate positive mental health attributes for women.

This study investigated the barriers that women face in accessing parks and outdoor leisure and its impact on perceived overall mental health and wellness. Factors impeding mindful interactions in nature for these women include fear, finances, time, impacts of urbanization and human impact, and the ethic of care. Despite the barriers that were present for these women and many others, the women in this study could navigate some of them through facilitators such as connection to community and relationships, access to skill-building, and seeking knowledge. It can be concluded that connection to nature is woven with the practice of mindfulness and strengthened by a willingness and desire to protect the spaces we love, play in, and explore.

CHAPTER 5: DISCUSSION

This research examined the influence of mindfulness on mental health and feelings of stewardship for women in parks and protected areas on the island of Newfoundland. This chapter will discuss the significant findings, how it relates to the literature, and what stands apart. Finally, I will conclude with limitations that I have found and suggest areas for future research where there appear to be gaps in knowledge and practice.

My objective was to research the connections between nature experiences, mindfulness, mental health, and stewardship for women in Newfoundland and Labrador. Although these topics have been studied independently, there is limited research that investigates how these factors are all interwoven. To understand how these topics are integrated from a holistic view, I also asked the women about barriers they felt they faced in accessing parks and natural spaces. My research question was: "What is the influence of mindfulness practice in nature on mental wellness and environmental stewardship?" In answering this question, the following sub-questions were addressed:

1. What were the perceived mental wellness outcomes after practicing mindfulness in natural areas?
2. How did participants understand their connection to nature through practicing nature-based mindfulness?
3. How did using mindfulness in parks influence a sense of community or a deeper connection to place?
4. What were the barriers that women experience in being able to access/spend time in nature?

The findings from this thesis show a strong correlation between practicing mindfulness in parks and having feelings of stewardship toward the environment. The results also support that practicing mindfulness in parks helps to facilitate positive mental health attributes for women. In addition, this research investigated the barriers that women face in accessing parks and outdoor leisure and the impact that those barriers have on their perceived overall mental health and wellness.

5.1 Reflections on Study Methods

Data was collected using semi-structured interviews that took place virtually using the Zoom platform. Using this platform was convenient, as I was able to interview women in a more comprehensive geographical range, including some who lived on the west coast of the island of Newfoundland. Using virtual interviewing was also convenient to organize times with other women who had busy schedules. The software was free for the participant to use, eliminating a participation barrier.

The results of this study would agree that photography aids in better memory recall and display of emotion. Furthermore, each participant recalled several specific details regarding the memory, including the feeling of mindfulness, what inspired them to take the photo, the people accompanying them, and the motivation for the trip. The participants in this study appeared to enjoy sharing their experiences through the photography from their time spent in Newfoundland and Labrador Parks and Protected areas. This was shown through their tone of voice, body language, and how they recalled the photograph's memories.

Many of the participants submitted photographs of themselves in powerful poses on strenuous hikes or conquering mountain peaks. By looking at the photographs as we discussed them, it appeared to bring up detailed memories and stories of their experiences, memories, and embodiment of mindfulness at that moment. The photographs marked a significant experience in challenging gender norms and perceived masculine roles. Many of the women sent in pictures of themselves summiting peaks like Gros Morne Mountain, exploring the backcountry on their own, and taking photos of themselves, smiling, after accomplishing a trip or a hiking excursion. These visual representations of self can help to reinforce that women are not limited in nature-based experiences because of their gender. Photographs act as essential tools in increasing the representation of women in the outdoors. When women are empowered by the outdoors, they participate more in risk-taking activities that help to deconstruct gender expectations imposed upon them. Many of the outdoor activities that women participate in are perceived as being masculine by society (Weatherby & Vidon, 2018). It also helps them address their self-perceptions around femininity and what it means to be female (Weatherby & Vidon, 2018).

In my research, the storytelling around the photos was a deep dive into discussing natural features that helped facilitate feelings of mindfulness. There were recurring themes of natural features that helped elicit feelings of mindfulness. The most common were water features, vistas, and trees. Many of these features prompted feelings associated with positive mental health attributes, including feelings of perspective,

clarity, and a sense of ease. Nearly all participants mentioned the importance of relationships related to the memories discussed, whether partners, friends, or their dog.

5.2 Meeting the Women

The women in this study experienced the benefits of empowerment in nature that transferred into other areas of their life. They also experienced grounding, a sense of freedom, mental clarity, solitude, healing, and shifts of perspective as characteristics of their improved mental state. These benefits to mental health are similar to findings from Pohl et al. (2000), who discovered that facing obstacles in nature can transfer into feelings of mental clarity, self-sufficiency, and changes in perspective. The positive impacts don't end with mental health; the authors also discussed how the benefits of time in nature challenges the rhetoric with gender inequities:

Wilderness and wilderness recreation can contribute to rectifying some of the social injustices and inequities from which women suffer today. These injustices are socialized within society and lead to oppression for women and other marginalized people. This socialization affects women's: self-esteem, authority, freedom, and independence (Pohl et al., 2000, p. 429).

By navigating social and personal barriers to participate in nature-based leisure, these women challenged the rhetoric that perpetuates nature is not a space for women to explore independently. Next, I will look at how the women's childhood connection to nature influenced their motivations for access in adulthood.

5.2.1 Childhood Connection

Most of the women in the study had strong connections to nature as children and identified the same in adulthood. They reflected upon their experiences in Newfoundland and Labrador Parks and Protected areas as an integral part of their childhood. Most of the activities that the women recalled participating in at a young age involved unstructured, exploratory play in nearby nature and parks. Unstructured play in early development has been linked to pro-environmental attitudes later in life and a deeper connection to nature (Wright & Matthews, 2014). As reflected in the literature, childhood connection to parks plays a vital role in the development of, and future connection to, nature. Buckley et al. (2019) suggested that people who connected with parks and nature in their childhood are more likely to do the same as adults, in alignment with the group of women interviewed for this study.

A growing theme in the literature is that children are becoming more and more disconnected from nature (Gabrielsen & Harper, 2018; Louv, 2005). This disconnection has been attributed due to several factors, including safety concerns among parents, increased usage of electronic devices and digital entertainment, increased urbanization, lack of access to green spaces, and children having highly scheduled lives filled with various activities (Gabrielsen & Harper, 2018). Although this relationship has been growing, the women I interviewed were not captured in this demographic. Eight of the participants are Millennials born between 1981 and 1996; one is a Generation Xer, born between 1965 and 1980; and one is a Baby Boomer, born between 1946 and 1964. It's interesting time to look at the jump in technology among GenZ and Millennials. While

Millennials grew up on the cusp of the internet and a digitized world, there was still ample time in their development and formative years before wireless internet and constant at-your-fingers-access of technology and digital connection became mainstream technology. Another factor to consider is that the island of Newfoundland could be regarded as more "rural" than other urban areas in Canada due to its smaller population, which may impact how children interact with their environments. Almost all women had strong connections to nature as children, which appears to stand apart from what the literature states about disconnection. Many of the women shared memories of frequently accessing parks with their families and spending ample time in nearby nature as children. Several women reflected upon memories of being told to play outside, having limited screen time, and overall preferring to play and explore outdoors over being inside. Although this population sample stands apart from findings in most literature on the topic, much of it suggests that children miss out on more than just nature connection when they are more interested in technology. Selhub and Logan (2014, p. 48) identify what we are missing out on when we become disconnected from nature:

The obvious reason for not being able to unplug and power down is the fear of missing something. In truth, we are already missing something- sleep, face-to-face interaction, contemplation time, physical activity, and a little immersion in the natural environment, to name just a few things.

Many participants felt that having a connection to nature in their formative years plays a role in current participation in nature-based leisure and motivations for access as adults. Research from Gabrielsen and Harper (2018) supports that connecting with nature

in formative years can help children find the skills to self-regulate with mental health-related stresses. Individuals can learn to ease the impact of psychological stress and support the ability to rejuvenate mentally. Those who have had considerable nature interaction from a young age have also been shown to have greater generosity toward others, be more considerate, and demonstrate positive attitudes toward nature (Gabrielsen & Harper, 2018). Spending time in nature was an essential tool for children to recharge and rejuvenate from technology and urban living stresses (Gabrielsen & Harper, 2018). The experience of childhood connection aligns with research which suggests spending more time in nature during early childhood development leads to feeling more confident. These experiences have strongly influenced the frequency, motivations, and level of connection the women experience in nature-based leisure as adults.

Both culture and childhood experiences have been shown to shape attitudes around the connection to nature (Capaldi et al., 2014). Nearly all participants shared memories of camping with their families in Newfoundland and Labrador Provincial and National Parks, with Butter Pot, Terra Nova, and Gros Morne being the most popular. This connection to nature found in childhood by these women supports the notion from Reese and Myers' work (2012), stating connection to nature early in life leads to increased usage and a greater appreciation of natural spaces, more actions of stewardship, and deeper feelings of pro-environmental behaviour as adults. According to Reese and Myers (2012), individuals who spent time in nature in their childhood have an increased likelihood of having strong environmental values as adults. There appear to be cultural differences present when investigating motivations and attitudes for accessing parks and

natural areas. While most women discussed accessing parks and green spaces for leisure or recreation in their formative years, one woman was born and raised outside of Canada spent time working in nature. She spoke of how spending time in nature meant working on her family farm, and it wasn't until she arrived in Canada that she started exploring this connection deeper. Once moving to Newfoundland, her mindset shifted from viewing nature as work to viewing time in nature for leisure, relaxation, and recreation. She felt that spending time in nature was a luxury in her childhood, and working on the family farm after school took priority.

5.2.2 The Privilege of Nature

Having the means and the ability to access nature is something that more privileged members of our society can overlook. Participating in nature-based leisure is a privilege that many people do not get to experience and one that many women do not have the opportunity to take part in. For example, research from Lovelock et al. (2011) states that "how nature is perceived, experienced and embodied is an outcome of social position and the ability to read and interact for social markers and signs" (p. 515). The majority of the women in this study were White and were born and raised on the island of Newfoundland. Most women grew up with frequent access to nature and with parents who had enough nature-based knowledge and financial freedom to connect them with nature in their childhoods. As primarily white women who grew up in Newfoundland, this sample represents a small snapshot of reality for many women.

Within my sample, women who grew up in middle-class to upper-middle-class families had greater access and frequency of visits to parks and natural spaces. In

contrast, those raised in disadvantaged areas did not have the same privileges. One participant who identified as growing up low-income said that she spent much of her time in the woods around her childhood home, as her mother was single, and they did not have a family car to access parks. Another woman, who identified as growing up without much money, said she could not camp with her single mother but went camping with friends instead. It appears that participants who came from families with higher incomes were able to access parks more frequently. In contrast, participants who grew up in a lower-income household took the opportunity to engage with nearby nature when possible.

All women who took part in this study reported that spending time engaging in mindfulness in nature positively impacted their mental health. Some women described these benefits as having greater feelings of relaxation, experiencing a reduction in anxiety, finding a sense of clarity, and experiencing mental restoration. Because of the powerful mental restoration effects that nature can provide, it would be ideal for more women to access this low-cost, self-directed mental health intervention. Nature-based leisure can be seen as an elitist pastime (Lovelock et al., 2011). It is a privilege to be able to enjoy nature and to be able to practice mindfulness within. To take part, you likely need access to a vehicle, be able to financially take time off of work, be able to pay for quality gear, and have the luxury of time to be able to research and dream up what adventure you'd like to take part. Women who face more extreme marginalization may not have access to meet their basic needs, cannot find access to gear and equipment, or access to vehicles cannot reap the benefits that nature can have on their mental health. Nature can be seen as a basic need and right for every individual. It is essential for mental

health, self-development, self-moderation, and building relationships and community. Therefore, it is essential for urban and community planning to consider ease of access to green space, safety factors of where it is located (lighting, entrances and exits, central location), and the quality of green space being conserved or created.

Many urban centers do not have sufficient green space. However, in the City of St. John's, this is not the case. Newfoundland and Labrador has the land to implement programming for inner-city individuals who may not be able to access provincial and national parks but may be able to meet at a municipal park for a guided program. Of course, a program like this would need funding and support from non-profits or government.

I suggest that safe and inclusive access to parks and natural spaces be considered a core need. Mental health is like the lattice that touches all aspects of our lives, well-being, relationships, and motivations. Perhaps we can learn to weave in nature-based therapy or interventions to our outreach work or make aspects more accessible to those who need help accessing it to those who may benefit most. By planning more accessible and inclusive green spaces within our communities, access for marginalized populations can be increased. Another way to encourage and increase access is to help empower women to advocate for their own safety and needs. Helping women prepare for nature-based leisure by offering educational resources through courses and pamphlets, subsidizing or providing gear, and discussing safety can contribute to higher levels of confidence and participation. Such supportive initiatives can be achieved through

contributions from municipal support, community organizations, and educational institutions.

Many parks and green spaces are not within walking distance, and other urban green spaces lack features that create a feeling of safety for some individuals. For example, having a variety of exits and entrances, lighting, and being within walking distance of the downtown core can make urban parks and green spaces feel more desirable and safer. Education and advocacy for recreating in green spaces could also make a big impact for women who are uncomfortable in natural spaces alone or don't know what is needed to participate. Having a gear swap or access to more affordable clothing and gear could positively impact levels of access.

5.3 Geography of Newfoundland and Labrador Parks

The women in this study all named parks that they enjoy visiting; however, the island's geography posed a constraint to the frequency of their visits. Eight women lived within St. John's, and two lived on the island's west coast. Geographical context is essential to consider, as access to one of the three National Parks in Newfoundland and Labrador sits on the west coast of the island of Newfoundland. The other National Park is closer to St. John's, approximately a three-hour drive, while the other is in Labrador. The remainder of the province has Provincial Parks and Protected areas scattered throughout, with the closest Provincial Park being a 45-minute drive from the City of St. John's. Because of this distance, several participants identified with spending time in "green spaces" and not necessarily parks. The geography and settlement of the island of Newfoundland allow for easy access to many green spaces outside of parks and protected

areas. This ease of access could be due to the geographical make-up of Newfoundland and Labrador and the ability to access crown land with more ease than may be possible in other Canadian provinces. A surprising finding from the study was that green spaces seemed to be the preferred location for nature-based leisure and mindfulness over parks and protected areas for most women. This choice was due to many factors, including time, distance, and financial constraints, which I will discuss further in this chapter.

The women in the St. John's area preferred accessing nearby nature over making the journey to parks. In contrast, women on the west coast of the island of Newfoundland preferred to spend their time in provincial and national parks rather than in nearby nature. The East Coast trail and other crown land were areas that the women living near St. John's liked to spend their time. In these areas, they were still able to access a state of mindfulness and positive mental health attributes from spending time in nature. Nearly all women had laid a foundation for connection to nature in their childhood, which motivated them to access green spaces of any kind in their adulthood.

Through discussion of the photographs, many women expressed a personal connection to place. The areas that they felt the most mindful were areas they had been to before, either in their adulthood or childhood, or areas that held a deep personal connection or memory. Some of these places were in parks, and others were in natural areas close to the City of St. John's, such as the East Coast Trail. The literature supports that to experience the most mental health benefit, it is vital that an individual feels connected to a place. For example, the environment feels far from "everyday life," which could be perceived as physical or mental (MacBride-Stewart et al., 2016). Parks are an

excellent fit for this, as they are often far from built environments and possess a high aesthetic value, which is vital to facilitate a quality experience (MacBride-Stewart et al., 2016).

Although natural areas that are not designated as protected can also have mental health benefits, I chose parks and protected areas to focus on this study. My intent was to explore if women preferred parks over urban green spaces to see if they were valued in the same way. Much of the current research around the benefits of women and nature connection concerns urban parks and green spaces (Grimwood, 2017). The objective of using parks and protected areas was to choose areas that helped participants feel like they were truly "away," and free from urban noise, disruption, and excess foot traffic. An essential factor in facilitating mindfulness is rooted in the present moment. Therefore, it was necessary to ensure that participants were truly integrated and immersed in the natural environment. Although the island of Newfoundland has a large amount of crown land and no shortage of green space, the sprawl of development and smaller communities fragments the feeling of "wilderness" that a park can provide. The fragmentation is due to natural spaces around the island of Newfoundland being close to development and inhabited areas. On many popular trails, especially the East Coast Trail, nearby adjacent roads create noise and disruption. Other trail users, including motorized use, such as ATVs, populate many stretches of the East Coast Trail. The trails have several access points, increasing foot traffic and improving access for many. Some research suggests that hearing urban disruption can take practitioners out of the moment. When battling the cacophony of urban noise and other external distractions, staying present can be

extremely difficult to accomplish. By choosing parks as the focus, my goal was to have participants reflect on their mindfulness experiences in areas with limited urban disruption, which can pull one out of their state of mindfulness. Parks and protected areas also hold an important ecological role. Without appreciation and use of parks, a decline in support for parks and protected areas is likely to happen (Wright & Matthews, 2014). Reflecting on positive experiences and mindful moments in parks could be a way to build support and promote feelings of stewardship in their continued protection.

With increased urbanization and the use of technology in our culture and communities, the more we distance ourselves from the natural world (Gabrielsen & Harper, 2018; Swami et al., 2020). With a deeper disconnect from nature, a decline in parks visitation is likely, and without the use of parks, support for conservation initiatives is also expected to decline (Wright & Matthews, 2014). In addition, parks are crucial for the myriad of benefits they provide to both humans and the environment. These benefits are described by Wright and Matthews (2014), "In an increasingly urbanized environment, parks provide a touchstone to the natural world; they are important spaces for developing social capital and for building a culture of conservation among citizens" (p. 11).

It is difficult to ignore the correlation between disconnection from nature and the declining state of the environment. Climate change, biodiversity and encroachment of urban spaces are all contributing to this decline (Wright & Matthews, 2014). Parks serve many purposes. They serve an important environmental purpose, as they provide ecological protection and biodiversity and educational, social, and cultural opportunities

for a deeper connection to others and the natural world (Wright & Matthews, 2014). Parks can provide a place where conservation and community can intertwine in a mutually beneficial way.

5.3.1 Indigenous History and Parks

Participants recognized the colonial history of parks and protected areas. They acknowledged the reconciliation that needed to happen and expressed gratitude for the protection of the land. Knowledge shared about the colonization of parks was limited but acknowledged by a few participants. A number of the women identified as White settlers and acknowledged that this was not their traditional land. Women who acknowledged this recognized that we have much work to do towards reconciliation. This opened up the conversation about deciding what land to protect, which areas are most important to protect, and how these decisions are made. One woman shared that her connection to nature wasn't innate, as it wasn't part of her culture as a "colonizer." She felt that as a settler, her depth of connection to nature wasn't the same as an Indigenous person. However, she is learning about how to connect to the environment with respect, even though she feels it is not deeply embedded in her own how to connect to the environment with respect, even though she feels it is not deeply embedded in her culture.

5.4 Barriers and Facilitators

The women in this study experienced a range of barriers when accessing parks and protected areas. Feelings of fear, lack of confidence, and ethic of care all played central roles in the decision-making around how the women took part nature-based leisure, which is supported by the literature (Botta & Fitzgerald, 2020). For some women,

barriers such as fear, finances, time, distance, and the ethic of care influenced the type of activity and the duration of the experience. For example, many women stated they were unable to access parks for hiking because they were too far to travel, in which time and distance were barriers. Instead, they chose to access nearby nature to experience nature-based leisure. This barrier didn't prevent them from taking part in the hiking activity itself but may have changed the outcome of their experience. Fear is another example of a barrier that was negotiated. Most women said they would never hike after dark or camp alone, so they had to coordinate excursions with friends or partners to make this happen. The ethic of care was also a barrier that was experienced and navigated for many women. For some, it changed the activities they were able to participate in, such as staying closer to home and not going for as long of a trip, and for others, it meant changing the intensity of the activity to bring a child along. The women in this study represent a small sample but were all passionate about recreating in the outdoors. Because of their desire to recreate in parks and natural spaces, many of them could navigate the barriers they faced to a certain extent.

Most of the barriers identified in this study were gender-specific. There is a divide in who participates in nature-based leisure more frequently. Grimwood (2017) asserts that accessing nature and participating in nature-based leisure results from the structures of privilege and lack of equality towards women.

These strands point to women's marginalization from the environment, a lack of access to resources and the marginalization of women's knowledge. Women have unequal access to the environment because of social inequality, and at the same

time, gender inequality and ill health are magnified when the environment deteriorates. In short, environment, gender and social equity go hand in hand (MacBride-Stewart et al., 2016, p. 2).

Although these barriers exist, the trend indicates that participation in outdoor leisure for women is increasing but is still considerably low compared to men's involvement (Botta & Fitzgerald, 2020). Much of the literature posits that this gap continues to expand as individuals age, where women's participation tends to decline more rapidly and men's involvement stays more or less the same (Botta & Fitzgerald, 2020). This gap in participation is likely due to other barriers discussed, including the ethic of care, knowledge, skill, and confidence. However, this finding did not correlate with the oldest participant in this study, who likely visited parks and protected areas more frequently than any other women interviewed. Although she still works full-time and still experiences ethic of care, her children were grown up, and she now has more time for herself. For some women, length of time in a career could be a facilitating factor; more vacation time is available for those with a specific job or company for some time. For other women, it is individualistic in how they navigate the barriers that they face.

5.4.1 Financial, Time and Knowledge Constraints

This research found that women who have more experience outdoors access parks and natural spaces more frequently and for longer durations, including overnight trips and backpacking trips. This finding strongly correlates with the literature, stating that highly motivated women are more likely to access these spaces at a higher frequency (Wright & Matthews, 2014). Women with higher levels of experience face fewer barriers in getting

outdoors. As knowledge can influence motivation, those motivated to get outdoors will likely successfully follow through (Wright & Matthews, 2014). However, barriers can still play a role in how that experience is shaped or experienced.

Financial constraints was the most salient barrier discussed by the women interviewed. Considerations of finances included being able to get time off of work, using holiday pay, the cost of traveling to a park, and the cost associated with gear. Research from Wright and Matthews (2014) found the same to be the top constraints to accessing parks and protected areas. As all women in this study had commitments such as careers, school, and families to tend to, this was not a surprising finding. As most women recently finished university, they were fairly new to their careers and therefore may not be as financially secure. Many women discussed the challenges of juggling desires to participate in leisure with responsibilities including chores, maintaining relationships, career, school, and other obligations. Several participants mentioned the difficulty of finding time to recreate while in school, and two mentioned raising children as influencing their time constraints. Leisure literature reflects that time is often a barrier; as a society, we don't often prioritize leisure over other important tasks and commitments (Henderson, 1996).

Along with time, distance to parks plays into the time and financial barrier. As many of the major provincial and national parks on the island of Newfoundland are at a minimum one hour away from where the participants live, it is reasonable to understand that finding time to access these areas can be seen as a barrier as well. This barrier can limit individuals who do not have disposable income or the flexibility of vacation time or

unpaid leave from work. An individual must have time off of work and other responsibilities and have access to disposable income for gear, gas, and access to a vehicle (Williams & Carr, 1993). The distance to access parks was a barrier for these women—all of whom had careers. It is vital to imagine how difficult accessing parks would be for women who do not have a steady job, access to a vehicle, or disposable income. Considering the impact of these factors, constraints such as time and money make accessing parks for nature-based leisure prohibitive for many women. When we consider the populations of women who would also benefit from practicing mindfulness in provincial and national parks, it is relatively unreasonable to imagine any regular ability to access this type of leisure. Marginalized and vulnerable groups of women could be people who may benefit from nature-based leisure the most. Although hiking requires some financial commitment, Mitten et al. (2016) names hiking as a more financially accessible nature-based activity, with a wide array of physical and mental health benefits. By looking at financial barriers from a systemic lens, perhaps prescribing time in nature could be used as a preventative mental and physical health treatment. It is important to look at the limiting factors and reduce barriers and support access for all women. Support could include providing proper footwear, leading group hikes, or offering car pools, there are many options to make hiking more accessible for marginalized women.

The women in this study had careers in their field of expertise. Nine participants had university backgrounds, with a minimum of a bachelor's level education. Nine participants identified as White, one as Black, and all women were between 25 and 60 years old. These demographics highlight the stark contrast of accessibility for women

who suffer from financial distress. Wright and Matthews (2014) suggest that age, income, and education influence limitations and barriers to accessing nature. Level of experience and time constraints seemed to have the most significant impact on the frequency of access for the participants in the study, which aligns with findings from the literature.

Although the women in my study experienced barriers in accessing nature-based leisure, they represent only a portion of marginalized women. For example, none of the women in my sample acknowledged having significant difficulty having their basic needs met. Several identified themselves as homeowners, and others discussed having partners and a two-income household. It is emphatically clear from the literature, that women struggling with getting their basic needs met experience these barriers on a more extreme level. From the current study and many others, it is evident that nature is beneficial to mental health. There is an obvious gap in research and programming to provide nature-based experiences to those who need help accessing it the most. The juxtaposition of this dilemma is critical for researchers, health professionals, and park professionals to be aware of. When we look at the collectivity of these barriers (finances, trauma from fear-based experiences, and ethic of care) we need to ask and then answer the question, “Is it possible for marginalized women to get the mental health benefits of accessing parks?”

5.4.2 Ethic of care

Women are often central to caregiving roles and as a result tend not to prioritize their own leisure needs and wants. Literature on women’s leisure shows that women often tend to put others' needs before their own, from cultural conditioning and imposed

societal expectations (Giles & Oncescu, 2021; Henderson & Allen, 1991). The two women in this study who had children and grandchildren identified that their experiences of leisure and ability to access parks were significantly impacted by challenges related to childcare. Ethic of care is a theory that illustrates the connection between these women and their responsibilities in personal relationships. Henderson and Allen (1991) described the ethic of care as when women:

follow a developmental path that concentrates on responsibility and commitment to others and defines themselves in relation to others. Women, then, often feel selfish and morally conflicted if they respond to their own needs rather than the needs of those close to them (p. 99).

Thus, leisure needs and wants may make many women feel selfish, as they are usually in the primary caregiving role and do not prioritize their own needs and self-care. Being short on time, being a single mother, lack of finances, and ability to bring the child on these experiences were all topics discussed that influenced their ability to access nature-based leisure.

Henderson and Allen (1991) outline the importance of understanding that placing value on being a caregiver is not problematic, but repeatedly placing one's basic needs after others is seen as being selfish. Henderson and Allen (1991) affirm that addressing ones' needs is not selfish, but instead, "the problem is in giving only to others and to consider it "selfish" to care for the self, particularly in regard to basic human activities like leisure, recreation and relaxation" (p. 100). In this study, the women with children and grandchildren often missed out on the types of leisure activities they would like to

participate in, such as overnight hiking, hikes of a longer duration, or more difficulty due to being the primary caregiver. This barrier was sometimes negotiated by limiting the intensity and the duration of the hike to make it appropriate for the child. Both women with children expressed they could participate in more activities after their children were old enough that they could be left on their own or were grown up. For the other women without children, family obligations or caretaking for a loved one meant rescheduling a trip to a park or having to cancel it altogether.

Although not all women interviewed for this research had children, the shadow of the "ethic of care" was still present in many women's experiences accessing parks. The ethic of care can extend beyond the caregiving role we often associate with children and can also be present when looking after others (Giles & Oncescu, 2021; Henderson & Allen, 1991). From the findings in this study, women who don't have children can still be influenced by an "ethic of care" regarding leisure time. Single women and women without children are also influenced by the ethic of care and are often called selfish or ostracized by others for taking time for themselves (Giles & Oncescu, 2021). Many women in this study named ailing family members, prioritizing partners, and having elderly pets as affecting their access to nature-based leisure. One woman moved back to the island of Newfoundland to help care for her mother, who had mental illness. The moral responsibility that they feel is often deeply embedded into the makeup of our society. As a result, many women experience a feeling of obligation levied upon them. Because of this imposed societal expectation, women, including the women in this study, tend to place others' needs before their own (Giles & Oncescu, 2021; Henderson & Allen,

1991; Lloyd et al., 2016). This pattern is especially relevant for leisure or taking time for oneself, often considered more "optional" or perhaps less necessary than other responsibilities. Over time, the ethic of care can start to minimize the importance of an individual's self-care, and mental health and overall well-being can be negatively impacted (Giles & Oncescu, 2021; Henderson & Allen, 1991). In addition, women historically also tend to have lower salaries which causes them to prioritize spending their time on their families in a caretaker role, rather than making time for themselves (Henderson & Allen, 1991).

Participating in green exercise was a substantial factor in feelings of self-worth and positive affect for these women. Activities such as rock climbing, hiking, biking, and camping were all associated with feelings of empowerment, accomplishment, and satisfaction. Spending time in "wilderness" or green spaces promoted feelings of freedom and independence. The findings from this study emphasized the wealth of positive mental health benefits that all women experienced while spending time in nature and reasserted the importance of taking time to experience leisure in the name of self-care.

In addition to positive mental health benefits, Pohl et al., (2000) found that participating in nature-based leisure can help confront social injustices perpetuated by gendered issues, including the ethic of care (Lloyd et al., 2016). Participating in nature-based leisure resulted in feelings of freedom, independence, and increased self-esteem for the women in this study. Although most of the participants in this study did not have childcare responsibilities, they still fell under the influence of the ethic of care with great responsibility felt towards elders, their partners, and pets. The ethic of care has an effect

on women's leisure and lives. It states that women who prioritize their leisure are "selfish," (Giles & Oncescu, 2021). As seen in the women in this study, and in alignment with the literature, participating in leisure for a form of self-care has many positive health and mental health benefits (Giles & Oncescu, 2021; Wesely & Gaarder, 2004). It is critical to encourage women to prioritize their self-care, regardless of commitments. The over-arching narrative needs to shift to emphasize the importance of nature's mental health benefits and empower women to take time to prioritize their needs alongside their loved ones.

5.4.3 Community

Spending shared time in nature can provide social benefits to women, as it can help to build meaningful connections, increase feelings of belonging, and create a sense of being part of a community (Hawkins et al., 2016; Tracey et al., 2018; Wolsko & Lindberg, 2013). Although the women from this study face several barriers that impact their mindfulness, mental health, and feelings of safety while in nature, it is evident that relationships play a vital role in helping support these endeavors and act as a facilitator to experiences. There is a strong correlation between these women's motivations to access parks and the importance of relationships, community, and connection; this is supported well in the literature. Feeling a sense of connection to others through relationship and community was found to positively impact the participants' overall feeling of well-being. Building meaningful connections also help people feel like they are a part of something bigger; and, therefore, belong among others or as part of a group (Hawkins et al., 2016). The importance of recreating with friends and loved ones was an important theme among

all of the women interviewed. Words used to describe this feeling were empowerment, connection, and a sense of community. Wesely and Gaarder (2004) found that women are often more comfortable recreating in nature with at least one other person, which aligns with many women from this study.

Many of the women had experienced feeling a sense of embodiment in nature which aligned with findings from the literature. The embodiment that they experienced had psychological and social benefits. For example, many women cited they felt more connected to their bodies and more in awe of what their bodies could accomplish. They marveled at the strength of their bodies to facilitate outdoor leisure and to get them to places they may not have conceived of reaching before. Embodiment helped improve their body image and brought them a sense of empowerment. Research shows that empowerment can help women release themselves from societal and self-limiting beliefs around their abilities (Barton et al., 2016). In turn, this helped to amplify their self-esteem, social identity, and uncovered a greater sense of self.

Outdoor recreation challenges gender stereotypes. Through leisure and nature-based experiences, women empower themselves and one another and improve their self-esteem and confidence (Barton et al., 2016; Henderson & Allen, 1991; Pohl et al., 2000). Women continue to discover themselves through outdoor activities and challenging themselves, and personal empowerment and self-reliance are a by-product of this (Henderson & Allen, 1991; Pohl et al., 2000). Henderson and Allen (1991) speak to the importance of women's leisure and building community and personal empowerment. These benefits can be found through leisure opportunities. Nature-based leisure allows

women to move past gender-based limitations and societal expectations of what they've been conditioned to see as "feminine." It allows them to alleviate themselves of these limitations by challenging gender-related beliefs. As a result, they can experience personal growth, increased self-confidence, and autonomy (Barton et al., 2016).

5.4.4 Fear

Fear is a gender-related barrier to accessing parks and natural spaces (Botta & Fitzgerald, 2020). Feeling fear was a barrier to participating in recreation and leisure in parks and natural spaces for nearly all women interviewed. Feelings of vulnerability, lack of knowledge, getting lost, and getting attacked or sexually assaulted were all concerns raised during the interviews. Although it didn't stop the women from following through with their plans, fear was omnipresent and influenced where they chose to recreate. Most women identified fear of being attacked by men as a fear and a limitation to participating in nature-based activities. Three women identified camping alone as something they would never do because of this fear. Others said walking after dark in urban and rural areas was something they were not comfortable doing. Feelings of fear and hesitation align with findings from Stanley (2020), who found that fear was a limiting factor in the nature-based leisure participation of women. Stanley (2020) named feelings of vulnerability and isolation as the main factors in the decision-making not to access parks, which was reflected in the discussions of fear-based barriers in this sample of women.

Gray and Mitten (2018) found that feeling a lack of personal safety was a significant barrier for women's ability to access natural spaces. Women would avoid participating in nature-based leisure and accessing certain areas if they felt at risk.

Sometimes women will avoid certain activities, modify plans, only partake in activities during the day, and travel in groups to negotiate their fear (Coble et al., 2003; Wesely & Gaarder, 2004). Often, women will choose not to participate in nature-based activities at all due to fear of violence or sexual assault (Hurly & Walker, 2019). Fear of sexual assault was felt by almost all women interviewed. However, some women could negotiate this fear in some circumstances and still make room to participate in their chosen activities. For some women, the risk of sexual assault was a worry that stayed with them throughout their nature-based experience. The fear was so great for other women that it stopped them from participating in the activities they wanted to, such as solo camping and solo hiking. Although the fear stopped them, some women expressed a desire to find a way to negotiate their fear to participate in solo camping and solo hiking one day. In this sense, the fear was prohibitive. It kept them from reaping the benefits of nature-based leisure and caused psychological discomfort from weighing the decisions of a potential consequence against a desire to participate.

The weight of making those decisions is the loss of potential mental health benefits of spending time outdoors doing something enjoyable. One of the participants felt the root of this fear was from cultural and societal conditioning and shared the enormity of its impact on how she informed decisions about recreating in the outdoors as an adult. Other women in the group discussed how cultural and societal messages had imposed this fear on their consciousness. Trimble (1994) describes the social juxtaposition that many women face in our society:

Cultural barriers and fears keep many of our daughters away from the woods and the fields. Tomboys are acceptable only until they reach the threshold of adolescence. Then they are told they must climb down from the trees they love and act as a proper lady. At this point, young women begin to live within a paradox. They are taught to spend their time attracting men, but they are also taught to fear violence from men. As a result, women may crave solitude but many fear being alone on the landscape. Over and over, they tell me they feel vulnerable; they feel danger—not from the land, but from men. They fear violence and never quite forget about its most disturbing expression: rape. (Trimble, 1994, p. 60).

Coble et al. (2003) found that women who feel entirely comfortable hiking alone represent a minority. Many women in Coble et al.'s (2003) study stopped participating in certain activities due to their fears of being attacked by men. Others negotiated their fears by implementing protective measures, being more cautious, or having a higher awareness of their surroundings. The latter is similar to the women in this study. All women expressed some level of fear while accessing parks. Many had fears that prevented them from partaking in the activities they would like to. A few others identified that the fear is an ongoing awareness but does not stop them from participating in the activities they would like to. These findings are similar to the literature. For example, two women identified specific incidences where they felt uncomfortable from interactions with men but do not have ongoing fears in this area that inhibit them. The range of fears discussed

included coming across men, being assaulted, kidnapped, wildlife, getting lost, fear of heights, the elements of weather, or the unknown.

Many other fear-based barriers were centered around a feeling of lacking knowledge or skill in the outdoors and a fear of wildlife. However, these fears did not have a substantial outcome on the level of participation or as much as the fear of men and assault. Similar findings from Botta and Fitzgerald (2020) found that lack of confidence in fitness and ability, financial responsibilities, the ethic of care, and fears around sexual harassment or assault were limitations to hiking alone. These limitations could be further explained by the compounding effect of being underrepresented in outdoor recreation, advertisements, and media (Botta & Fitzgerald, 2020; Rogers & Rose, 2019).

5.5 Connection to Nature

We know that humans have an innate connection to nature, and with that connection comes many health and wellness benefits (Schutte & Mlouff, 2018). Capaldi et al. (2014) state that greater exposure to nature correlates to an individual's emotional and psychological well-being, increased happiness, conscientiousness, and extroversion. This connection supports our psychological, physical, spiritual, and social health. However, ample evidence suggests our relationship with nature has changed substantially within the last few decades (Capaldi et al., 2014; Maller et al., 2009; Ulrich et al., 1991). As a collective, we have become more centralized into urban environments, our lives have become more technologically advanced, and arguably more disconnected (Annerstedt & Wahrbord, 2011; Bratman et al., 2015). A significant portion of society has lost the need to exist and work off of the land. Because of this, we are moving further

away from our integration with nature. Although many researchers agree that we are becoming more disconnected, some view this disconnection as problematic. Grimwood (2017) asserts that the notion that we are "disconnected" from nature can be a problematic statement to make. Understanding our relationship to nature in this way implies that we are apart from nature, that we exist separately, rather than us being part of nature at its very core.

All of the women felt the mental health detriments associated with urbanization and the impact on their mental health and well-being. Nearly all women shared that they are currently or have struggled in the past with a mental health concern such as depression, anxiety, phobias, or addiction. Individuals who spend less time in nature have been linked to poor physical and psychological well-being (Yu et al., 2017). Swami et al. (2020) support a link between a lack of time in nature and increased mental health-related illness or symptoms. People who live in urban areas are at a higher risk of suffering from mental-health-related symptoms. Conversely, people who live near green spaces experience positive health-related impacts (MacBride-Stewart et al., 2016). Similarly, the women in this study identified spending time in nature and parks as a coping mechanism to their mental health-related symptoms and experienced improvement when they took the time to spend time in nature mindfully.

Several others identified with feeling a sense of disconnect from nature. It is clear to see that this disconnect impacts wellness and mental health. Other women identified noise pollution as something that contributed to their anxiety in artificial environments. Mao et al. (2012) suggest that rates of stress and chronic fatigue from living in modern

environments are conditions that continue to rise in urban environments. When individuals spend more time outside, their adverse mental health symptoms can show improvement. Outdoor leisure can improve or even heal symptoms of stress and contribute to an overall feeling of wellness (Hart, 2016; Tracey et al., 2018).

Factors of urban living are disrupting our social, psychological, and physical health. Increased use of technology and screen time contributes to increased sedentary behaviour, increased isolation, and lack of physical activity (Annerstedt & Wahrbord, 2011; Park et al., 2001). Many women interviewed identified with the stresses of modern living and the negative impact on their bodies and minds. Several acknowledged struggling with mental health in depression and anxiety due to heavy workloads, demanding careers, too much time indoors, and less time for leisure.

The connection to nature we have as a human species is a phenomenon that we continue to understand at a greater depth. For example, through the biophilia hypothesis, E.O Wilson (1984) was among the first modern scientists to suggest that we are innately drawn to nature, as we are a part of nature itself. The biophilia hypothesis provides a basis for the rationale that we can benefit from this connection through mental and physical health benefits; and in turn, we can care for our natural spaces and the environment as a whole. The supporting theories to help guide this notion can be seen as a web; they are intricately interconnected and blend seamlessly into one another. For example, theories and practices such as Attention Restoration Theory (Kaplan, 1995), Stress Reduction Theory (Ulrich et al., 1991), the Nature Connectedness scale (Mayer & McPherson Frantz, 2004), mindfulness, and shinrin-yoku, can all provide rationale and

support the practice of spending more time in nature. As a result, we can reap positive health and well-being benefits.

5.5.1 *Attention Restoration Theory*

The primary mental health benefits that the women participants reported were mental and emotional restoration while spending time in parks and natural spaces. They cited feeling a sense of peace, a reduction in anxious thoughts and feelings, increased mental clarity, and an overall sense of well-being. These findings fall in alignment with Kaplan's Attention Restoration Theory (ART), which shows that time spent in nature can have a mentally restorative effect on an individual. Attention Restoration is a concept that helps individuals rest their minds through directed attention. Directed attention, such as focusing on work, arduous tasks, and stresses of everyday life, can cause mental fatigue (Kaplan, 1995). Women from this study also found that work, relationship stress, and urban ways of living all contributed to their mental fatigue. Attention restoration theory can help facilitate rest and clarity of the mind.

There are four critical components to receive the mental health benefits of Attention Restoration. The first is the concept of "being away." An individual must feel like they are in a location that feels distant from the stresses of their everyday life, physically and mentally. Some women experienced the feeling of "being away" in nearby nature, such as on the East Coast Trail, although it seemed to be amplified in parks. There was a greater correlation with "being away," and being in parks, where a long drive and more isolation was the case. The second component to ART is an aspect of fascination. The individual must allow their mind to relax and be drawn toward "soft fascinations."

Kaplan (1995) describes these things in nature as clouds, sunsets, leaves moving in a breeze. The idea is that the individual's attention is captured effortlessly and is captivated for some time. This characteristic was found through natural features that caught the women's attention through their photographs. Some of the most commonly captured photographs included water features, like the ocean or a pond or waterfall, the sunset, and vistas from a higher perspective. Many women cited seemingly unassuming features as instrumental in capturing their interest and attention, such as the wind catching the leaves on a tree, patterns in the bark of a trunk, or the way the light is captured in an icicle on a winter's day. These features also played a role in fostering a sense of mindfulness. The next component of ART is extent. There must be a feeling of "wilderness," or feeling like the individual is in a completely different or a larger place where one can feel immersed. A common finding with all of the women was that spending time in nature made them feel like they were immersed in the experience, and far from the stresses of their lives and responsibilities. Compatibility is the last component of ART. There must be a feeling of connection or a desire for the individual to be in that space. Many of the women in this study formed emotional ties to the places that they felt the most mindful, and, therefore, the most "restored." These were spaces that they continue to return.

5.5.2 Stress Reduction Theory

All participants identified that they felt a stress reduction when practicing mindfulness in parks and natural spaces. This phenomenon can be explained by Ulrich et al. (1991) Stress Reduction Theory, which states that individuals will experience a reduction in stress and an increase in feelings of restoration in a natural environment. Part

of the rationale of the research conducted in a park or protected area was to ensure that urban sounds were unlikely to be heard. In the province of Newfoundland and Labrador, many small communities spread throughout rural and non-rural areas, making it difficult to truly "escape" from anthropomorphic noise and disturbance.

Stress reduction theory is further described as a way that an individual responds to stress psychologically and physically. Depending on the individual's coping mechanisms, there can be various responses and intensities. The response ultimately leads to emotional and physical fatigue. The women in this study all experienced negative mental health impacts from feelings of stress. They described the embodiment of stress as increased anxiety, insomnia, physical and emotional fatigue, brain fog, panic attacks, and muscle tightness. Fear as a coping response can affect the body not only emotionally but also physiologically. It can impact the cardiovascular, skeletomuscular, and neuroendocrine centers in the body (Ulrich et al., 1991). As the women all experienced, this coping response leads to physical and emotional fatigue. Counter to that, restoration from nature-based experiences improves cognitive function, increases positive feelings, and reduces negatively associated feelings (Ulrich et al., 1991). Feelings of mental and physical restoration and a decrease in feelings of stress, were all mental health benefits that these women experienced while spending mindful time in nature.

An essential component of Stress Reduction Theory is experiencing a sense of 'escape.' It has also been found that exercising outside helps with stress recovery but can be challenging to tease apart from merely just experiencing natural environments. For example, in their study with university students viewing nature photographs before a test,

students reported positive mood states compared to viewing urban settings. A study by Ulrich et al. (1991) looked at the patient stays in hospitals. One group of patients had windows facing an urban setting (concrete, brick walls), and the other group had windows facing natural features (green space, trees). The hospital patients who had views of nature consistently had shorter stays and needed less pain management. In another study by Ulrich (1984), where hospital patients were given views of nature, they consistently had shorter stays and used less pain management. These findings are consistent with the women in this study, who found that spending time in parks and natural spaces helped positively impact their mental health, to varying extents. Although stress reduction benefits can be gleaned from simply viewing nature, most significant results were experienced while taking part in green exercise. The women in this study were able to find moments of mindfulness while viewing and experiencing “soft fascination,” of natural features. However, the most potent results of stress reduction occurred during green exercise. The women discussed the stress reduction benefits of hiking, biking, rock climbing, running, and swimming as having the most significant positive impact on their mental health.

5.5.3 Connectedness to Nature Scale

The results from this study show that there is a connection between feelings of connectedness to nature and pro-environmental attitudes. Mayer and McPherson Frantz (2004) studied connectedness by measuring trait levels of emotional connection to nature. They found that age and gender played a role in environmental attitudes and found that older females displayed greater ecological concerns and behaviours when compared to

other demographics. Happiness was measured through positive affect, life satisfaction, and overall feelings of vitality. Further, they found that individuals who felt that nature was an inclusive part of themselves had the strongest correlation with happiness and well-being. While it is difficult to measure the correlation of happiness and nature connectedness in this study, it is clear that connection to nature had an overall positive impact on the women's mental health and general well-being in this sample.

The women in this sample all identified as having pro-environmental behaviours and attitudes and demonstrated these values by discussing their thoughts and actions towards nature. Those who feel more connected and have values integrated with nature and stewardship participate more in nature-based activities. Whereas people who feel like they are in control of nature, or separate from nature, tend to participate in activities not aligned with pro-environmental behaviour, for example, motorized activities (Wright & Matthews, 2014). The women interviewed in this research all took part in non-motorized nature-based activities. None of the participants mentioned motorized leisure as part of their preferred activities. The primary activities that these women took part in were a form of green exercise, primarily hiking or walking.

5.5.4 Sense of Place

It is no surprise that participants connected with specific areas based on the memories from their photographs. However, there is a strong correlation between feelings of pro-environmental sentiment and connection to these unique places. Although not all areas where deep connection occurred were in a park or protected area, it is clear to see that these women felt connected to the environment regardless of its protected

status. It seemed insignificant if a place had protected status or not in terms of motivations to visit. It was adequately clear that the women felt we should better protect the environment. In alignment with the literature, people want to protect what they love, and they cannot love what they do not know or haven't experienced (Louv, 2012).

Connection to community and relationship appeared to play a role in how the women felt connected to a particular place. Connection was demonstrated through childhood experiences and whom they chose to experience nature-based leisure as adults.

5.6 Mindfulness and Mental Health

As a society, we are beginning to pay more attention to mental health, and as a result, it is becoming more acceptable to talk about related symptoms and struggles. Despite the increased access to services and the stigma beginning to fade, women are still disproportionately impacted by mental health-related illness (CAMH, 2022; World Health Organization, 2000). Each woman in this study identified facing one or more types of mental health struggle, some chronically, and some in the past. Research from Annerstedt and Wahrbord (2011) suggests that the most common occurrences of mental health-related illnesses are depression and anxiety, attributed to our modern way of living. Compounded by busy schedules, not being physically active enough, and being overworked, we are also increasingly disconnected from nature. These features are thought to have a compounding effect on our overall well-being. These findings were also evident with the women interviewed for this research, of which most women identified with struggling primarily with feelings of depression, anxiety, and phobias.

Participants experienced many positive physiological and mental health benefits from their time in nature. The women interviewed for this study had a strong baseline understanding and practice of mindfulness. All participants explained mindfulness as the practice of being engaged with the present moment. The women found that practicing mindfulness in nature helped connect them deeper to their experience by feeling more connected to their bodies and thoughts and emotions. Many women experienced connection through green exercise such as hiking, rock climbing, paddling, and watching nature meditatively.

Mindfulness presented many positive mental health benefits for these women. When women participate in nature-based activities, they can often experience a shift in perspective, mental clarity, feelings of self-sufficiency, grounding, and connection to others (Loeffler, 2004; Pohl et al., 2000; Tracey et al., 2018). Spending more time in nature helped improve a person's relationship with nature and improved their self-confidence, increased their capacity for clarity, self-reflection, and contemplation (Kaplan & Talbot, 1983). Many of these traits were found by the women interviewed. Through discussion of their photographs, they revisited many of the emotions and feelings they had experienced on the outings. Empowerment, achievement, and an overall sense of well-being were commonly used descriptors.

Nearly all participants found that they were the most mindful when spending time in nature. Park et al. (2001) also found that natural environments maximized health benefits while practicing mindfulness. Practicing mindfulness in natural spaces was more accessible than in urban settings because the women found urban settings to be inherently

stressful. After all, with artificialization, noise, and congestion, urban areas are far removed from our true nature (Tsunetsugu et al., 2010). The women also found that being mindful helped them connect more deeply to their experiences, which aligns with Schutte and Mlouff's (2018) findings. Spending time in nature aids in minimizing symptoms of stress, anxiety, and depression (Newman et al., 2018), which is analogous with what many of the women experienced.

It is a unique time for mental health worldwide. With the development and spread of COVID-19, many individuals are experiencing changes in their mental health for the first time, and some are experiencing more significant impacts (Clarke et al., 2021). This can be due to a combination of factors that the pandemic has presented, including financial distress, social isolation, lack of exercise due to restrictions on fitness centers, among many others. Especially now, we can emphasize the importance of time in nature on our mental health (Clarke et al., 2021). Nature can offer a safer place to gather to increase social interaction, provide opportunities for green exercise, and, depending on proximity to one's home, can be relatively low-cost to participate.

5.6.1 Mental Health Benefits of Mindfulness in Nature

Many psychological benefits have been found with being a practitioner of mindfulness. For example, increased life satisfaction, increased autonomy, and an overall more positive affect are just some of them (Schutte & Mlouff, 2018). However, these authors also found that people who practice mindfulness more often will find it more natural to practice and have an easier time accessing it. Olson et al., (2020) identified two primary purposes of practicing mindfulness. The first is to cope with and then eliminate

suffering, and the second is to create positive change in emotions, which eventually can change behaviours. The practice of noticing the external can help bring awareness to an individual's internal state of being. The practice of shinrin-yoku shares many similarities to mindfulness and is one of the most simple and accessible ways to access it. It is the simple act of slowly walking in or spending time in a natural area and paying attention to the five senses of ones' surroundings. It has been proven to reduce stress and promote relaxation (Olson et al., 2020; Tsunetsugu et al., 2010). It can be used as a financially feasible way to help reduce negative mental health-related symptoms (Olson et al., 2020). This was the case with the women who more frequently visited nearby nature, as it was more financially accessible than parks in Newfoundland and Labrador.

Using mindfulness in nature has been associated with an increased ability to emotionally regulate and mitigate or reduce feelings of anxiety and depression. It helps to increase engagement and learning contributes to a sense of belonging, and connection to others (Powch, 1994). In a study by Pohl et al., (2000), participants reported that they found relief through escapism, self-sufficiency, change in perspective, connection to others, and mental clarity through solitude and revitalization. Many participants identified that they felt more clarity and perspective while spending time in parks and natural spaces. This is supported by Hawkins et al., (2016), who posits that time in nature can help secure an individual's self-identity and life purpose.

Nature-based experiences can provide opportunities for improved self-esteem, mood, and vitality (Ray & Jakubec, 2014). The women in these interviews experienced a greater connection to nature and themselves through the practice of mindfulness. Many

participants felt the embodiment of mindfulness or greater awareness of their bodies in relation to nature. Swami et al., (2020) support that women who spend more time in nature often experience increased mindfulness, self-compassion, and an overall greater acceptance of self. This supports the finding from the women interviewed who identified they felt more mindful while in nature and marveled at the capabilities of their bodies. In this sense, it can be summarized that most of these participants experienced a healthier body image, feelings of empowerment, and greater self-appreciation while experiencing nature-based activities.

5.6.2 Mindfulness and Stewardship

Barbaro and Pickett (2016) define stewardship and pro-environmental behaviours as attitudes and actions which have a positive impact on the natural environment. They found that practicing mindfulness can impact an individual's behaviour and feeling connected to nature can motivate individuals to engage in pro-environmental behaviours (Barbaro & Pickett, 2016). This connection was also supported by Unsworth et al. (2016), who found that mindfulness creates a deeper connection to parks and natural spaces and influences an individual's psychological well-being as well as their behaviour through positive actions and attitudes toward the environment.

Mindful meditation in nature helps people feel more connected to the environment (Bennett et al., 2017). It helps facilitate self-improvement by building confidence, learning acceptance, and feeling more secure in one's self-identity. Some research suggests that practicing mindfulness can enrich one's experience in the outdoors, leading to changing or influencing their behaviour (Barbaro & Pickett, 2016).

Work from Beery and Wolf-Watz (2014) posits that the environment we create an emotional attachment to becomes something we inherently value. A sense of belonging to a community further contributes to a desire to protect it.

Stewardship can be defined as advocating for the environment by practicing pro-environmental behaviour, teaching others how to minimize their impact, and having overall respect for natural spaces. The women identified strong feelings of care, respect, and reverence towards the spaces they visited. All participants agreed that seeing litter and other perceived negative impacts of human use impacted their experience and took them out of a state of mindfulness. Several participants expressed frustration when discussing the effects of litter on the land and their experience while in nature.

Many of the women identified themselves as stewards of the environment. It seems that there is a connection between practicing mindfulness in nature and having reverence and respect for the environment. The findings from my research suggest that one must have a relationship or inherently care about the environment to experience pro-environmental behaviour and feelings, and mindfulness was a facilitator of that. Although mindfulness can be a facilitator to stewardship and pro-environmental thoughts and behaviours, it can also be thought of as a by-product of enjoyment in nature. The more we feel connected to spaces, the more mindfulness occurs naturally.

As we know, parks and protected areas are critical for protecting biodiversity. They are also essential to promote social, physical, spiritual, and emotional wellness benefits. Linking the benefits together, it is evident that the relationship between humans and nature is mutually beneficial. By encouraging pro-environmental attitudes and

behaviours, and stewardship initiatives, we can hope to minimize potential degradation to natural areas through increased misuse or overuse, economic development, and adverse effects of climate change (Buckley et al., 2019).

One woman discussed the potentially problematic usage of the term “stewardship,” when discussing ideologies with environmental work. Although some could argue it is semantics, I agree that the word implies an ownership or a responsibility over nature. While I do assert the importance of taking personal and societal responsibility of our actions toward nature, I agree it is a delicate balance to not overthrow the intricacies of the ecosystem by overmanaging the natural spaces around us. She asserted that she felt as if she were a very “small part of nature,” and emphasized the reverence she had for being a part of it, rather than being better, or above it, or needing to manage it. In this context, I believe it is critical to think of stewardship of protecting nature like we are part of a larger whole, rather than claiming ownership over it. While the discussion around the definition of stewardship did not go as deeply with the other women, overall, the word implied taking ownership of their behaviours and actions in a pro-environmental way.

5.7 Limitations

Although there were limitations to this research, the results were rich with valuable data from authentic lived experiences. Some restrictions impacted how this study unfolded, and COVID-19 played a role in how this study took shape. Although this change in methods allowed for a larger geographical area to be covered, a limitation was that recruitment resulted in a less diverse participant group. Also, a limitation was that the

interviews did not occur in person. COVID-19 restricted travel for a portion of the summer when many people visit parks and protected areas. Because of this, some participants used older photos, where perhaps the memories of their nature-based experiences weren't as fresh as they could have been. In the interviews, impacts from COVID-19 was not mentioned with any significance from participants.

The participants who took part in this study were primarily child-free⁴, White, and educated. To better understand barriers and constraints that women face, it would be beneficial to have reached a more culturally diverse population of women to allow for adequate representation. Having a more diverse group of participants with a range of economic, outdoor experience level, age, and cultural backgrounds would provide a more holistic view of women's experiences. The demographic of participants in this study represented a small sample of women with similar nature-based interests and experiences. All women in this study saw the intrinsic value of spending time in nature for leisure and mental health purposes. It would be beneficial to hear from women who may not identify as mindfulness practitioners or frequent park users to understand better the weight of barriers placed on women as a collective. Although this limitation leaves another gap to be addressed for future research, looking at this study's results can help inform how to encourage participation and address barriers for women who may not have the same ease of access or motivations to access nature-based leisure. I hope that this research can

⁴ Child-free is a phrase used by a few participants who established they did not have children out of personal choice.

strengthen the case that spending mindful time in parks and natural spaces has the potential to benefit all.

Although intended to have an inclusive approach, this study likely had some exclusionary elements, including the recruitment method. Firstly, if women do not feel connected to nature, they may not feel motivated to participate in a study that examines a nature connection. Convenience sampling using social media platforms Facebook and Instagram were used. Women facing substantial barriers would likely not be on a Facebook hiking group page to see the recruitment poster. Other women with trauma and vulnerable histories may not feel comfortable reaching out to discuss their experiences. Finally, some women may not have a clear understanding or experience of mindfulness, which could be a deterrent.

The barriers that the women in this study faced are amplified with other marginalized groups. Women with significant barriers including economic hardship, trauma, lack of knowledge, among others, may not have the opportunity to have their voices be heard due to these limitations. Because of this, there is a knowledge gap. Hearing from marginalized groups could provide a wealth of information to inform outdoor leaders, non-profits, community organizations and mental health professionals. Many of the reasons marginalized women can't access this type of research are similar to barriers that prevent them from accessing nature-based leisure for health and wellness benefits. Access to gear, time, and money are privileges many people don't have ready access to. Leisure itself can also be seen as a luxury, in that many marginalized people cannot participate, or to the extent that this study would require. Women with significant

economic barriers often do not have access to a vehicle or have the means to access a National or Provincial Park. They may also not have access to disposable income, time to spend on leisure pursuits, or access to reliable childcare to take time for themselves.

One of the requirements of this participatory research was to include photographs. Using this methodology would require access to a smartphone or a camera. In addition, the interview itself could be considered exclusionary, as it was virtual, and many individuals do not have access to internet services or have a personal computer. To truly be inclusive, a focus group held in an easily accessible location could have rendered a wider range of participants, or private interviews held in a central location close to public transit.

Unfortunately, not all women have had the same experiences and ease of access to nature-based leisure. For example, the literature states that ethnic minorities tend to experience more barriers when accessing nature-based leisure than others (Lee et al., 2020; Lovelock et al., 2011). The one woman of ethnic minority shared that she hadn't taken the time to regularly spend leisure time in nature until she arrived in Canada. The remainder of my sample were White women, born in Canada. It is unknown why my sample lacked ethnic diversity; however, the literature states that ethnic minorities face more extreme barriers regarding nature-based leisure (Lee et al., 2020; Lovelock et al., 2011). There is a possibility that women of ethnic minority did not feel compelled to participate in a study on nature-based leisure because of barriers.

It is critical that we seek to understand the experiences of equity-seeking women and their motivation for accessing outdoor leisure to better know the influence on barriers

and their mental health and stewardship. Women of ethnic minority experience marginalization and oppression on an even deeper level (Lee et al., 2020; Lovelock et al., 2011). For research in this area to be more inclusive and robust, it is critical to find representation from groups of an ethnic minority. Ethnic groups tend to experience more barriers than others, including discrimination, racism, economic disparity, social exclusion, inability to travel great distances, and lack of time (Lee et al., 2020; Lovelock et al., 2011). Due to these factors, they often do not participate as much in outdoor leisure and tend to have limited access to parks and natural spaces (Lee et al., 2020). To access nature-based leisure, it is essential to have disposable income for travel and gear, access to a vehicle, and the ability to take time off of work, which is an opportunity that many women do not have.

A downside to using virtual interviews is that there were some technological issues. Connection issues and audio-visual difficulties are to be expected with this method and were present with some of the interviews that took place. Although it caused some minor disruption, it did not impact the overall data collection. Secondly, the virtual environment may be more comfortable for some and less personable for others. When interviews take place in person, it is easier to read body language and better understand social cues. However, the virtual nature of the interviews did allow emotion and body language to come through to a certain extent. Given the current situation with the global pandemic of COVID-19, I believe that virtual interviews were the most effective means of collecting data.

5.8 Areas for Future Research

Nature is deeply embedded in our genetic make-up, and we know that spending time in nature is good for our physical, social, spiritual, psychological, and emotional health (Schutte & Mlouff, 2018). The women who took part in this study already had reasonable means to access nature-based leisure, in terms of time and finances. They also all had intrinsic motivation to experience nature-based leisure, along with a strong understanding of the benefits of mindfulness. Each woman was aware of how spending mindful time in nature could positively benefit their mental health, and all women expressed that environmental stewardship was important. To look deeper into these connections, it's crucial to investigate how women with different experiences and backgrounds view these topics.

It is clear that there are significant barriers to nature-based participation for many women and other marginalized populations. Future research could bridge the gap to include women who suffer from trauma, debilitating fears, financial barriers, and physical limitations that make it challenging to participate in nature-based leisure. There is a large gap in addressing these needs that communities can meet. Although this research has shown that all women have barriers to accessing parks and natural spaces, impoverished women, those who suffer from trauma, ethnic minorities, and those who are generally more marginalized are even more restricted. Future research can bridge the social divide for women with more severe economic, physical, and psychological constraints. By using more targeted recruitment methods, a more diverse sample of participants could be included. For example, approaching groups such as associations for new Canadians,

shelters, women's centers, churches and community centers that have programming for youth and seniors would be spaces to recruit a more variable sample of. A more diverse sample of women is critical to better understand mental health benefits of spending time in parks and natural spaces, and to understand barriers that women face in greater depth. It is important to understand the intricacies of age, culture, income, and family structures that can influence women's experiences. In addition, my study lacked the diversity of age range to determine a more significant disconnection to nature among newer generations with certainty, but I believe it would be an interesting area for future research.

Newfoundland and Labrador has a unique geographical landscape which allows ease of access to many green spaces and natural areas. It would be interesting to explore women's barriers and facilitators of nature-based experiences in other areas of Canada, as well as in more urban settings. Further, conducting a comparative analysis of attitudes of pro-environmental behaviour and feelings of stewardship in other Canadian provinces could offer different perspectives to this body of research.

Providing opportunities for individuals to experience stewardship and nature appreciation through mindfulness could be a powerful way to help women experience connection to nature, and in time, advocate for further protection of parks. By providing programming for individuals who have not experienced the benefits of nature-based mindfulness or leisure, it could help give them tools to have some autonomy over their mental health and wellness.

5.9 Conclusion

In conclusion, by looking at the influence of mindfulness in natural areas on mental wellness outcomes, we can better understand the interconnectedness between self, nature, and community. To further understand the benefits of mindfulness that women experience in nature, it is imperative to acknowledge, understand, and address the barriers they face in accessing these spaces. By looking at the influence of mindfulness on feelings of stewardship and pro-environmental behaviour, we can start to understand the mutually beneficial relationship between protecting green spaces and our health.

We know that mindfulness in parks and natural spaces provides many positive health benefits, and that mindfulness influences stewardship and pro-environmental behaviour. However, it is difficult to comprehend or postulate to what degree. Using qualitative analysis and photo elicitation, a richness of data was found from hearing the stories and experiences directly from the women and their lived experiences. This research can add to the growing body of research in nature-based therapy interventions and contribute to the interconnected link of qualitative and visual data in this field. Recreation, outreach, and health professionals can use support from these findings to reach further marginalized groups of women who cannot reap the benefits of nature-based leisure due to more extreme circumstantial barriers to participation. This information can help to inform community organizations to create nature-based programming for marginalized populations to access parks and natural spaces. By understanding the barriers that women face and the potential for mutually positive

benefits to women and the environment, much healing, personal and ecological, can occur.

The concept of mindfulness is relatively new in Western society. As we are beginning to understand it more, we seek to understand how mindfulness has a role in strengthening the connection between self and environment. Mindfulness allows us to be present with our thoughts, bodies, and own unique experiences and better understand ourselves on a deeper level. Fostering this intrinsic connection to self is imperative to take care of our mental health and well-being, but it is not separate from our surroundings.

Humans and nature are interconnected, woven like the lattice of a spiders' web. Each web is individually unique, a collection of experiences, memories, and attitudes. How well we are doing in a mental health capacity can be captured by this imagery. Where we are strongest is when all the pieces meet in the middle. We are not as strong with too many broken strands; the connections are fragile. They are intrinsically there, but we need to make reparations to the disconnect from our conditioning, our cultural impressions, and the patriarchal societal messages that have been woven into our inner makings. The foundation is there, but our work is to seek out what needs strengthening, what is missing, and how to begin to patch it back together.

It's not surprising to see the deeply embedded connections between patriarchal effects, the boom of capitalism, environmental destruction, fear of men, and disconnection from nature. These are all pressures and themes that every woman in this study identified with having experienced. When we look at the opposing forces, we can

recognize them as environmental protection, equality, and connection to nature. We must mindfully acknowledge how our society's structure, beliefs, and priorities impact the treatment of both women and the environment we are intertwined with. Approaching both social and environmental issues from a holistic lens can capture the intricacies that weave them all together. By looking at lived histories of women and the connection to self through mindfulness, connection to nature through stewardship, and connection to community through parks, we can begin to understand environmental issues more deeply from a gendered lens.

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Appendix A: Recruitment Poster



**RESEARCH PARTICIPANTS
WANTED**

**Photo Elicitation Study on women &
nature based experiences**

- Are you interested in environmental stewardship?
- Do you have a current mindfulness practice?
- Have you recently spent time in provincial or national parks in Newfoundland and Labrador?
- Do you identify as a woman 19 years or older?

Participants will be asked to submit photos of their time spent in NL parks via email and be willing to talk about their mental wellness and nature experiences in an hour long virtual interview.

For more information or to participate in this study, please contact the researcher at lhbass@mun.ca

School of Human Kinetics and Recreation
Memorial University of Newfoundland

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy.

Appendix B: Consent Form

Informed Consent Form

Title: Through the eyes of she: Exploring womens' stewardship and connection to nature using mindfulness and photo elicitation in Newfoundland and Labrador Parks and Protected Areas

Researcher(s): Laura Bass, School of Human Kinetics and Recreation, lhbass@mun.ca

Supervisor(s): Dr. TA Loeffler, Dr. Anne-Marie Sullivan, School of Human Kinetics and Recreation, taloeffler@mun.ca, asulliva@mun.ca

You are invited to take part in a research project entitled, "Through the eyes of she: Exploring womens' stewardship and connection to nature using mindfulness and photo elicitation in Newfoundland and Labrador Parks and Protected areas."

This form is part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. It also describes your right to withdraw from the study. In order to decide whether you wish to participate in this research study, you should understand enough about its risks and benefits to be able to make an informed decision. This is the informed consent process. Take time to read this carefully and to understand the information given to you. Please contact the researcher, Laura Bass, if you have any questions about the study or would like more information before you consent.

It is entirely up to you to decide whether to take part in this research. If you choose not to take part in this research or if you decide to withdraw from the research once it has started, there will be no negative consequences for you, now or in the future.

Introduction:

I am a Master's student in the School of Human Kinetics and Recreation at Memorial University. As part of my Master's thesis, I am conducting research under the supervision of Dr. TA Loeffler and Dr. Anne-Marie Sullivan.

Purpose of Study:

It has been well researched that spending time in nature has positive physiological and psychological effects on humans. My research will look at whether practicing mindfulness in nature has an influence on feelings of environmental stewardship and pro-environmental behaviour, as well as the barriers that women face in accessing these spaces. There is limited research on womens' feelings of stewardship in relation to the practice of mindfulness in parks, which is why I feel it is important to study.

What You Will Do in this Study:

This study uses photo elicitation to supplement the interview process. You will be asked to email up to five photos that were taken by you in a park or protected area in Newfoundland and Labrador. These photos should be of imagery, features or objects that illicit feelings of mindfulness. The virtual interview will follow an interview guide of pre-determined questions around your experiences of mindfulness, mental health, nature-based experiences, stewardship, and barriers to accessing nature. In addition to the interview questions, will be asked to talk about which park you accessed, about the features in the photographs, and what mindfulness means to you. You will also be asked background and demographic questions. You can skip any questions you do not wish to answer.

This study is not a requirement of the organizations that have distributed or shared the recruitment poster.

Length of Time:

The interview will take approximately one hour.

Withdrawal from the Study:

- You can withdraw from the study at any point. Any data collected will be deleted at your request or used, if it is consented to.
- If you would like your data to be removed from the study after your participation has ended, it must be requested before August 1, 2021. After this time, the data will be anonymized.

Possible Benefits:

- a) Acknowledging mental health related benefits through discussing nature-based mindfulness interventions.
- b) A greater awareness to the academic community regarding the impact of nature-based interventions
- c) Adding to a body of research to investigate barriers for women's access to nature
- d) Sharing knowledge of connection to nature and pro-environmental behaviour
- e) Influencing parks and protected areas policy and design

Possible Risks:

Due to the focus on mental health in this study, some participants may experience emotional triggers. It's important to acknowledge these feelings and seek out assistance if needed. There are resources that can help, either anonymously or in person. If you are a Memorial University student, you can contact:

Memorial University's Student Wellness and Counselling Centre (UC5000) -- (709) 864-8874

If you are not a student, you can contact:

General (NL): Mental Health Crisis Line, 24-hour Toll Free -- 1-888-737-4668

Confidentiality:

The ethical duty of confidentiality includes safeguarding participants' identities, personal information, and data from unauthorized access, use, or disclosure.

Your privacy and confidentiality is of the utmost importance. Any raw data collected will be kept confidential and appropriately stored to ensure it cannot be accessed. After the research is published, the data will be reported in aggregate form, which will make it not possible for the identification of a participant.

You can access the Zoom and Webex privacy statements below.

<https://zoom.us/privacy>

https://www.cisco.com/c/en_ca/about/legal/privacy-full.html

Anonymity:

Anonymity refers to protecting participants' identifying characteristics, such as name or description of physical appearance.

The data collected from the study will not be anonymous and will not be collected anonymously. It will be reported without identifiers for your protection and privacy. Photographs containing people's faces will be blurred so features may not be recognized. Participants should not send in any photos of other individuals, as they have not consented to having their picture being taken and used in this study. Every reasonable effort will be made to ensure your protection and privacy. You will not be identified in publications without your explicit permission. The use of your photos in published findings is optional.

Recording of Data:

This study will use audio and video recording during the interview for the purpose of qualitative data collection. The recording will be used to create transcripts and will then be stored on a password protected hard drive.

Use, Access, Ownership, and Storage of Data:

- The recorded data will be stored on a password protected and encrypted hard drive. The transcript documents will be stored as an electronic data file in a password protected and encrypted device.
- The data and consent forms will be stored in a locked filing cabinet.
- Aside from the main researcher, two supervisors will have access to this data.
- Data will be kept for a minimum of five years, as required by Memorial University's policy on Integrity in Scholarly Research.

Reporting of Results:

- This data may be published as a thesis, in journal articles and at conference presentations.
 - o Participants can access information about the study by visiting the project website by going to <https://throughtheeyesofsheca.wordpress.com/>
 - o Upon completion, my thesis will be available at Memorial University's Queen Elizabeth II library, and can be accessed online at: <http://collections.mun.ca/cdm/search/collection/theses>.
 - o The data will use direct quotations, with permission, but will primarily be aggregated form.

Sharing of Results with Participants:

Participants can find the completed thesis at Memorial University's Queen Elizabeth II Library, or accessed online at: <http://collections.mun.ca/cdm/search/collection/theses>. They can also access the project website by going to <https://throughtheeyesofsheca.wordpress.com/>

Questions:

You are welcome to ask questions before, during, or after your participation in this research. If you would like more information about this study, please contact: Laura Bass, lhbass@mun.ca,

Dr. TA Loeffler, taloeffler@mun.ca, Dr. Anne-Marie Sullivan, asulliva@mun.ca

The proposal for this research has been reviewed by the Interdisciplinary Committee on Ethics in Human Research and found to be in compliance with Memorial University's ethics policy. If you have ethical concerns about the research, such as the way you have been treated or your rights as a participant, you may contact the Chairperson of the ICEHR at icehr@mun.ca or by telephone at 709-864-2861.

Consent:

Your signature on this form means that:

- You have read the information about the research.
- You have been able to ask questions about this study.
- You are satisfied with the answers to all your questions.
- You understand what the study is about and what you will be doing.
- You understand that you are free to withdraw participation in the study without having to give a reason, and that doing so will not affect you now or in the future.
- You understand that if you choose to end participation **during** data collection, any data collected from you up to that point **will be retained by the researcher, unless you indicate otherwise**.
- You understand that if you choose to withdraw **after** data collection has ended, your data can be removed from the study up to August 1, 2021.

- | | | |
|---|------------------------------|-----------------------------|
| I allow my photographs to be used in any publications resulting from this study with any identifying features blurred | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| I agree to the use of direct quotations | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| I agree to be video recorded | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| I agree to be audio recorded | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

By signing this form, you do not give up your legal rights and do not release the researchers from their professional responsibilities.

Your Signature Confirms:

- I have read what this study is about and understood the risks and benefits. I have had adequate time to think about this and had the opportunity to ask questions and my questions have been answered.
- I agree to participate in the research project understanding the risks and contributions of my participation, that my participation is voluntary, and that I may end my participation.
- A copy of this Informed Consent Form has been given to me for my records.

Signature of Participant

Date

Researcher's Signature:

I have explained this study to the best of my ability. I invited questions and gave answers. I believe that the participant fully understands what is involved in being in the study, any potential risks of the study and that he or she has freely chosen to be in the study.

Signature of Principal Investigator

Date

Appendix C: Interview Guide

Title: Through the eyes of she: Exploring womens' stewardship and connection to nature using mindfulness and photo elicitation in Newfoundland and Labrador Parks and Protected Areas

1. Free and Informed Consent

Ask the participant to read the study information form and if they have any questions. If they understand the form and are willing to continue, ask the participant to sign the consent form. Remind the participant that they can withdraw from the study at any point. Inform the participant that they may skip any question they do not want to answer.

2. Demographic Information

- a) What is your age, and gender identity?
- b) What is your educational background?
- c) What do/did you do for employment?
- d) What is your cultural background?

3. Opening Questions

- a) Where did you grow up?
- b) What was your relationship with nature growing up?
- c) Did you access parks and protected areas as a child? In what ways?
- d) How often do you access National or Provincial parks in Newfoundland and Labrador?
- e) If you had the ability, would you access parks more often? If so, what are some things that prevent you?

4. Mindfulness and Mental Health

- a) How do you describe mindfulness? What is your experience of practicing it?
- b) Do you have difficulty being able to access a state of mindfulness?
- c) During what activities or times do you feel most present or mindful?
- d) What do you like or dislike about the practice of mindfulness?
- e) Do you experience stress and anxiety? If so, in what ways?
 - a. What types of things help you cope with these feelings?
 - b. What does it feel like in your body?
- f) How does spending time in nature impact your mental health?
- g) How does being in the present moment influence your feelings while in nature?
- h) How does experiencing mindfulness in nature feel in your body?

5. Nature and Women

- a) As a woman, do you feel like you have barriers in participating in nature-based activities? What are they?
- b) Do you know of barriers that other women may face in accessing nature?
- c) How often have you had to change or adjust plans in accessing parks because of barriers such as fear, family commitments or obligations, or financial constraints?

- d) Have you ever been fearful of accessing parks or protected areas? If so, what caused the fear?
- e) Have you ever had to change or adjust your plans while in a park or going to a park because of fear?
- f) Have any barriers that you've experienced in accessing parks had an influence on your overall frequency of access and enjoyment of parks? What are they and why?

6. Connection to Nature and Stewardship

- a) How much time do you generally spend in National or Provincial parks?
- b) Would you spend more if you could? In what ways?
- c) What are your reasons for wanting to spend time in nature? Is there anything you dislike?
- d) What are your thoughts on the importance of natural spaces and parks for recreation? For other purposes?
- e) What inspires you to access parks and protected areas over other natural spaces?
- f) Do you feel a deeper connection to certain places or parks than others? Why?
- g) Do you think it is important to protect these areas? What parts are important to protect and why?
- h) Do you feel you're a steward for the environment? If so in what ways?

7. Photographs

- a) Let's talk about the trip these photos were taken from. Which park were you in? What was your purpose for going?
- b) Were you by yourself or with others? What is their relationship to you?
- c) Do you remember what inspired you to take these photos?
- d) Were there any features that you wish you were able to take photos of but didn't?
- e) What is your favourite(s) photograph and why?
- f) Do you feel you were able to achieve a state of mindfulness while on this trip?
- g) Let's talk about the features in the photographs. What about these photographs represent mindfulness to you?
- h) Are there certain natural features or experiences that make you feel more mindful than others? What are they?
- i) If you had to pick one photograph that represents mindfulness in nature, which one would it be and why?

8. Closing

- a) Are there any final thoughts you'd like to add or share?
- b) Do you have any questions for me?

Thank the participant for their time and remind them that they can withdraw from the study at any time.

Appendix D: Ethics Approval



Interdisciplinary Committee on
Ethics in Human Research (ICEHR)

St. John's, NL Canada A1C5S7
Tel: 709 864-2561 icehr@mun.ca
www.mun.ca/research/ethics/humans/icehr

ICEHR Number:	20220127-HK
Approval Period:	June 15, 2021 – June 30, 2022
Funding Source:	
Responsible Faculty:	Dr. Anne-Marie Sullivan School of Human Kinetics and Recreation
Title of Project:	<i>Through the eyes of she: Exploring women's stewardship and connection to nature using mindfulness and photo elicitation in Newfoundland and Labrador Parks and Protected Areas</i>

June 15, 2021

Ms. Laura Bass
School of Human Kinetics and Recreation
Memorial University of Newfoundland

Dear Ms. Bass:

Thank you for your correspondence addressing the issues raised by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) for the above-named research project. ICEHR has re-examined the proposal with the clarifications and revisions submitted, and is satisfied that the concerns raised by the Committee have been adequately addressed. In accordance with the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (TCPS2)*, the project has been granted *full ethics clearance* for **one year**. ICEHR approval applies to the ethical acceptability of the research, as per Article 6.3 of the *TCPS2*. Researchers are responsible for adherence to any other relevant University policies and/or funded or non-funded agreements that may be associated with the project. If funding is obtained subsequent to ethics approval, you must submit a Funding and/or Partner Change Request to ICEHR so that this ethics clearance can be linked to your award.

The *TCPS2* requires that you **strictly adhere to the protocol and documents as last reviewed** by ICEHR. If you need to make additions and/or modifications, you must submit an Amendment Request with a description of these changes, for the Committee's review of potential ethical concerns, before they may be implemented. Submit a Personnel Change Form to add or remove project team members and/or research staff. Also, to inform ICEHR of any unanticipated occurrences, an Adverse Event Report must be submitted with an indication of how the unexpected event may affect the continuation of the project.

The *TCPS2* requires that you submit an Annual Update to ICEHR before **June 30, 2022**. If you plan to continue the project, you need to request renewal of your ethics clearance and include a brief summary on the progress of your research. When the project no longer involves contact with human participants, is completed and/or terminated, you are required to provide an annual update with a brief final summary and your file will be closed. All post-approval ICEHR event forms noted above must be submitted by selecting the **Applications: Post-Review** link on your Researcher Portal homepage. We wish you success with your research.

Yours sincerely,

Kelly Blidook, Ph.D.
Vice-Chair, Interdisciplinary Committee on
Ethics in Human Research

KB/bc

cc: Supervisor – Dr. Anne-Marie Sullivan, School of Human Kinetics and Recreation