

**University of Alberta**

How Does Nature Help Women Heal from Sexual Assault: A Narrative  
Analysis

by

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## **Dedication**

I dedicate this thesis to my Auntie Ca (1919-2007) who was the most inspiring and resilient woman I have ever known.

## **Abstract**

Due to the potentially devastating implications of sexual assault, investigating how women heal in the aftermath of this event is imperative. One method of healing which has received minimal research attention has been spending time in nature. Therefore, the purpose of this study was to answer the question: How does nature help women heal from sexual assault? Using a qualitative narrative methodology, in-depth, semi-structured interviews were conducted with four female sexual assault survivors from the community. Analysis of interview data resulted in individualized accounts of each woman's journey of healing through nature. In addition, themes and subthemes reflecting the common elements of healing across participants were generated. These common themes were: providing emotional support, connecting with spirituality, changing the experience of the self, and refocusing attention. Findings are contextualized within the existing literature and implications for practice are provided.

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## Table of Contents

	Pg.
<b>CHAPTER ONE: INTRODUCTION</b> .....	1
Background.....	1
Purpose of the Study.....	3
Organization of Thesis.....	4
<b>CHAPTER TWO: REVIEW OF THE LITERATURE</b> .....	5
Defining Sexual Assault.....	5
Risk Factors.....	6
Impact of Sexual Assault.....	11
Dissociation.....	12
Posttraumatic stress disorder (PTSD).....	14
Depression.....	15
Anger.....	16
Sense of safety.....	17
Body disgust/pollution.....	18
Shame, blame, and self-esteem.....	18
Spiritual impact.....	19
Treating Sexual Assault.....	20
Positive Life Experiences and Resilience.....	26
Nature and Healing.....	29
Ecopsychology.....	29
Introduction to nature-assisted therapy.....	32
Animal-assisted therapy.....	35
Adventure therapy.....	37
Horticultural therapy.....	39
Nature and stress.....	40
Nature and depression.....	41
Nature and the self.....	43
Summary.....	45
<b>CHAPTER THREE: METHODOLOGY</b> .....	47
Epistemology.....	47
Theoretical Perspective.....	49
Hermeneutics.....	49
Feminism.....	50
Methodology.....	51
Introduction to narrative.....	51
My narrative voice.....	53
Participant voices.....	53
Audience.....	54
Methods.....	54
Participant recruitment and sampling procedures.....	55
Inclusion criteria.....	55

Data collection .....	56
Interviews.....	56
Field texts.....	58
Data Analysis .....	59
Ethical Considerations .....	61
Nonmaleficence .....	61
Confidentiality and anonymity .....	62
Informed consent .....	63
Evaluating the Study .....	63
Establish credibility through member checks .....	64
Owning my perspective .....	65
Dependability.....	66
Transferability.....	66
The Researcher’s Story.....	67
<b>CHAPTER FOUR: FINDINGS.....</b>	<b>70</b>
Participant Narratives.....	71
Alexandra.....	71
Patti .....	78
Isabelle .....	83
Anne.....	89
Thematic Analysis .....	94
Providing emotional support.....	95
Reducing anger .....	95
Increasing Calmness .....	95
Establishing a Sense of Safety .....	96
Connecting with spirituality.....	99
Changing the experience of self.....	101
Strengthening a positive relationship with the body.....	101
Being or creating the authentic self .....	103
Increasing self-acceptance .....	103
Refocusing attention .....	105
<b>CHAPTER FIVE: DISCUSSION.....</b>	<b>107</b>
Limitations and Recommendations for Future Research.....	129
Conclusion and Reflexive Afterword .....	131
References.....	132
Appendix A.....	159
Appendix B .....	162
Appendix C.....	165
Appendix D.....	166
Appendix E .....	167

## List of Tables

	<b>Pg.</b>
Table 1. Thematic Summary of Healing through Nature.....	94



## **Chapter One: Introduction**

Nature is the ultimate resource. It is the great web of birth and growth, death and destruction, rebirth and regeneration, an endless font of creativity. Nature has its own rhythms of ebb and flow, bloom and decay, a regularity of activity and rest that...soothes wounds (Turner & Diebschlag, 2001, p. 91).

### **Background**

How does spending time in nature influence healing? Because this question has received relatively limited research and clinical focus, it is difficult to provide a comprehensive answer. Taylor, Segal, and Harper (2010) noted that “rarely is contact with wilderness environments included as an important variable associated with positive outcomes and change” (p. 77). Furthermore, when nature is incorporated into practice as it is with mindfulness (Gilbert, 2009) compassion-focused therapy (Gilbert) and meditation (Kabat-Zinn, 1994), rarely is it positioned as a potential crux of treatment in and of itself. Even fewer efforts have been directed toward studying nature’s role in healing from sexual assault. For example, during a comprehensive review of the literature only one study investigating the benefits of passive time in nature (as opposed to animal-assisted therapy or adventure therapy) was found (see Burns, 1998). With the aim of educating clinicians about utilizing nature in therapy, Burns summarized the case of one survivor. Moreover, trauma researchers Amstadter and Vernon (2008) acknowledged that recovery environment is an important area requiring further

research. Thus, a deeper understanding of how nature may be healing seems warranted.

In addition, given the prevalence of sexual assault and the seriousness of its consequences, it is also an important area for study. Nearly one in five Canadian women will be sexually assaulted during her lifetime. While Canadian men also suffer victimization, rates remain statistically higher for women (Van Ameringen, Mancini, Patterson, & Boyle, 2008). After reviewing the literature on sexual assault, Cortina and Pimlott Kubiak (2006) emphasized a similar point. They stated almost all studies show women face far more sexual assault than men, which led them to conclude that sexual assault may be “the most gender-dependent form of trauma” (p. 754). Taken together, this information suggests sexual assault is not uncommon among women (Cloutier, Martin, & Poole, 2002, p. 265).

Harrell (2011) noted that experiencing sexual assault can be disempowering. In contrast, a narrative methodology may provide the opportunity to regain personal power. It may accomplish this by encouraging those who have been silenced, such as sexual assault survivors, to find their voice (Kohler-Reissman, 1993). Similarly, by summarizing the work of Foucault (1967) as well as White and Epston (1990), McLeod (1997) further explicated the emancipating power of narrative:

Behind the notion of ‘author’ lies the functioning of power or ‘authority’. There is implicit power in ‘authoring’, in having a voice. Being powerful requires a willingness of other people to listen, to hear, to be influenced by

what that voice has to say. There are many people in the world who possess little power of this kind, who are effectively ‘silenced’ (p. 93).

Thus, implementing narrative methods seemed appropriate for my research study which explored how nature helped women heal from sexual assault. As indicated by McLeod in the quotation above, creating a space for participant voices is synonymous with giving them power. My thesis attempted to create this space by positioning participant vignettes at the center of analyses. Moreover, the audience of this research study included participants, the wider academic and professional communities, and myself. Therefore, these groups are listening to, and being influenced by, these voices.

### **Purpose of the Study**

The central research question which guided this study was: How does nature help women heal from sexual assault? This central question reflects two subsidiary ones: what does it mean to heal from sexual assault and how does nature foster such healing? Narrative methodology and methods were selected as appropriate means of answering these questions.

This study not only attempted to address a gap in the literature but also sought to learn from and help survivors. With a better understanding of how survivors heal, counsellors and psychotherapists may be better equipped to offset the immense impact sexual assault can have on women’s lives. This would be no small feat. For example, Sarkar and Sarkar (2005) stated “sexual assault on women, unlike any other offence (theft, robbery or murder) leaves a deep-rooted effect or stigma in the body and mind” (p. 407).

**Organization of Thesis**

The remainder of this thesis is organized into four chapters. Chapter two contains the literature review which provides an in-depth examination of the research on sexual assault and healing through nature. Chapter three includes an explication of method. It is here where I describe: study conceptualization, narrative research, participant recruitment and sampling procedures, data collection, and data analysis. Furthermore, ethical considerations, background information about the researcher, and evaluation of the study are also fleshed out. Chapter four contains the findings, including narratives of healing from sexual assault. These narratives encompass the themes commonly found across most or all participants, as well as narrative threads that were more unique. In addition, this chapter also fleshes out the common themes in more detail. Next, chapter five discusses implications of the findings, directions for future research and limitations of the study.

## **Chapter Two: Review of the Literature**

In this chapter, sexual assault is defined and its prevalence discussed. In addition, the impact of sexual assault is considered and its potential risk factors explored. Treatment modalities and the role of positive life experiences follow. The chapter then introduces the role of nature in healing. An overview of nature-assisted therapy, animal-assisted therapy, adventure therapy and horticultural therapy are provided. The chapter concludes by considering how nature mediates stress and depression, as well as how it may improve the relationship with the self.

### **Defining Sexual Assault**

Prior to further discussion, the meaning of the term sexual assault should be clarified. This is a somewhat arduous task however, given that the definitions provided in the literature can be convoluted. For example, according to Stevens (1993), “rape,” “sexual assault,” and “sexual imposition” are used synonymously. Similarly, Cue Davis (2011) included rape, along with other types of unwanted sexual contact, under the umbrella term “sexual assault.” Adding to the confusion is that although such terms are interchangeable they can also be teased apart to denote separate experiences. For instance, some researchers conceptually separate rape from other forms of unwanted sexual contact, limiting the former to “penetration of the victim’s vagina, mouth or rectum without consent” (Cohn, Zinzow, Resnick & Kilpatrick, 2013) and including all remaining types of violation in the latter. Finally, others may use terms such as “rape,” “forced sex,”

and “sexual assault” without explicitly clarifying what makes these terms distinct from one another (see Culbertson, Vik, & Kooiman, 2001).

Semantic differences such as these can be problematic since they muddle the literature. According to Basile and Saltzman (2002) “there is a lack of consensus regarding the definition of sexual violence and which of its various components (e.g., rape, fondling, contact and non-contact sexual abuse) should be included as part of the term” (p. 2). Although no single study can create consensus, I want to be clear about what sexual assault means herein. I selected a definition base on the literature as well as on the events participants described as sexual assault. Thus, similarly to Cue Davis’ (2011) broad and inclusive conceptualization, sexual assault in this study means “any attempted or completed sexual act, sexual contact, or noncontact sexual behavior in which the victim does not consent or is unable to consent or refuse” (DeGue et al., 2012, p. 1211). In other words, all unsolicited sexual acts (including rape) are considered sexual assault. Similarly, I use this term to subsume all other related terms found in the literature, including sexual violence and sexual abuse, so long as such terms appear congruent with this definition. It is also important to note that participants in this study may have been sexually assaulted once or many times, during childhood, adulthood, or both.

### **Risk Factors**

Several studies have sought to determine risk factors for being sexually assaulted. For example, Bramsen, Lasgaard, Koss, Elklit, and Banner (2012) used a prospective research design to examine what put 199 female grade nine students

at risk for sexual assault by a peer. Variables measured included early engagement in sexual activity (defined as consensual sex before 14 years of age), risky sexual behaviour, history of childhood sexual assault, number of sex partners, and lack of clarity regarding sexual boundaries. Data was collected at baseline and again six months later. Logistic regression yielded results which suggested that the number of sexual partners and risky sexual behaviour predicted peer sexual assault while all other variables, including history of childhood sexual assault, were non-significant.

However, findings from Humphrey and White (2000) offer a slightly different perspective. Their study examined risk factors for sexual assault in a representative sample of university women in the United States. In contrast to the finding that childhood sexual assault had no bearing on later victimization (Bramsen et al., 2012), Humphrey and White found this factor doubled the risk of sexual assault in adolescence. Similarly, they found sexual assault demonstrated a linear relationship with age; in other words, childhood sexual assault increased risk for sexual assault in adolescence, and in turn, sexual assault in adolescence increased risk in adulthood. However, it is important to note that childhood victimization in the absence of adolescent victimization did not increase victimization in adulthood. Rather, it was victimization during both earlier stages of development that meant greater risk during university (Humphrey & White).

Koss and Dinero (1989) have yet another perspective on the risk factor of childhood victimization. In a national sample of college women, they found childhood sexual assault was associated with later sexual assault. Essentially, this

factor increased overall risk in early adulthood that was not specific to the linear model discussed above. Wyatt, Guthrie, & Notgrass (1992) also found childhood sexual assault put women at greater risk in adulthood.

However, given that overall results are mixed, important questions about childhood sexual assault as a risk factor for later assault remain. For example, it is unclear whether this variable can be considered a definitive factor for later victimization. In addition, once (or if) it is deemed a definitive risk factor, further study would be required to determine whether it impacts revictimization in adolescence only, in adulthood only, or both.

A second risk factor for sexual assault is substance use or administration. According to Messman-Moore, Ward, and Zerubavel (2013) the most frequent type of sexual victimization among college women is incapacitated sexual assault. This suggests drugs and/or alcohol may play a role in the etiology of sexual assault in this population. Walsh, DiLillo, Klanecky, and McChargue (2013) defined incapacitated sexual assault as “occurring when the victim is unable to consent or resist due to the use or administration of alcohol or drugs” (p. 558). Similarly, Koss and Dinero (1989) found higher than average alcohol use precipitated victimization. They proposed several hypotheses to explain this relationship. Firstly, they argued alcohol consumption may result in physiological changes which reduce ability to perceive assault cues or facilitate resistance. Secondly, they proposed that perpetrators view alcohol consumption as synonymous with sexual willingness, and thus it is used as an excuse to disregard evidence of nonconsent.



However, at this juncture some important caveats should be made. While some risk factor research such as that pertaining to alcohol consumption may be interpreted as placing responsibility on survivors rather than perpetrators, this does not appear to be the intention of such research efforts. Bramsen et al. (2012) explained that “although sexual victimization is always the responsibility of the perpetrator, providing information on risk factors amenable to change may empower girls, thereby diminishing the continued consequences of forced sex” (p. 525). Similarly, Koss and Dinero (1989) noted that “because rape is certainly among the harmful outcomes that clinicians would wish to forestall when possible, intervention targeted at the reduction of risky behaviors might be warranted among clients who are potential targets of sexual assault” (p. 249). In addition, Koss and Dinero concluded that “most of the sexually assaulted women were dissimilar to unvictimized women primarily in that they had encountered a sexually aggressive man” (p. 249). In other words, vulnerability to sexual assault is largely based on previous experiences which were either out of a victim’s control or entirely unpredictable (Koss & Dinero).

A third risk factor for sexual assault may be ethnicity. For example, Koss and Dinero (1989) did not collapse across this variable in their analyses since previous research suggested it was associated with different rates of sexual victimization. According to these studies, rates of victimization were as follows: “16% Caucasian women, 10% African American women, 12% Hispanic women, 7% Asian women, and 40% Aboriginal/Indigenous women” (Koss & Dinero, p. 244; Koss, Gidycz, & Wisniewski, 1987). Thus, different ethnic groups may have

unequivocal exposure to sexual assault with Aboriginal/Indigenous women seemingly overrepresented. It is important to note, however, that these findings on ethnicity were largely gleaned from American studies. Although less research has been conducted in this regard within the Canadian context, Statistics Canada (2006) has provided some data. For example, not unlike U.S. findings, Aboriginal women in Canada reported considerably greater incidences of sexual assault than non-Aboriginal women. Indeed, an estimated 54% of Aboriginal women have been victimized.

More specifically, some research suggests different forms of sexual assault may be more or less prevalent depending on ethnicity. For example, Kalof (2000) undertook a study on ethnic experiences of sexual victimization in a population of undergraduate women. Ethnicities represented in the study were Caucasian, African American, Hispanic, and Asian. Her results suggested African American women had the highest score for sexual coercion, defined as using “pressure or authority to obtain intercourse” (p. 76) while Hispanic women had the lowest score. Conversely, Hispanic women had the highest score for incidence of attempted rape, defined as either “sexual intercourse did not occur, but your partner attempted intercourse by threatening physical force” or “sexual intercourse did not occur, but your partner attempted intercourse by actual use of physical force” (p. 81). Conversely, African American women scored lowest on this domain. In addition, Caucasian and African American women were significantly more likely to disregard themselves as rape victims than were other ethnicities, despite meeting criteria (see p. 81 of Kalof for various definitions of

rape). For example, incidence of “unacknowledged rape” among Caucasian women was 14%, and among African American women, it was 15%. In comparison, rape went unacknowledged among 8% of Asians and 5% of Hispanics (p. 84).

To conclude this section on risk factors, three observations regarding the literature should be noted. Firstly, much of the research was conducted using samples of university women (Humpfreys & White, 2000; Kalof, 2000; Messman-Moore, Ward, & Zerubavel, 2013; Miller, Markman, & Handley, 2007; Walsh, DiLillo, Klanecky, & McChargue, 2012). While beneficial for comparing results across studies, such an exclusive sample provides a biased perspective. Kalof argued this sampling strategy is a methodological improvement over relying exclusively on a clinical population; however, she also acknowledged students remain a very specific sample. Secondly, a fair number of studies on risk factors relied on the Sexual Experiences Survey (SES) as a primary method for data collection (Cecil & Matson, 2006; Kalof; Kimble, Flack, & Burbridge, 2012; Koss & Dinero, 1989). This suggests that perhaps other methods of data collection may serve to supplement the information gathered by survey. Thirdly, in addition to the work by Statistics Canada (2006, 2013) it would behoove researchers to conduct further research on sexual assault within the Canadian context.

### **Impact of Sexual Assault**

Not only do they have a greater chance of being victimized, women are also more susceptible to some types of secondary problems related to assault. For

example, Breslau (2001) noted women are two times more likely than men to develop posttraumatic stress disorder (PTSD). Similarly, Cloutier, Martin, & Poole (2002) found women to be at increased risk for a myriad of physical and mental health problems. Although men's experience of sexual assault should not be overlooked, given women's increased likelihood of being assaulted, and of developing related secondary problems, a focus on their specific needs is warranted. What follows is a discussion of some of the challenges survivors face in addition to victimization. Whenever possible, findings stemming from research using female samples are presented; however, if such information is unavailable, findings applicable to survivors in general will be fleshed out.

**Dissociation.** Dissociative symptoms are well-established as significant responses occurring during and/or after sexual assault (Farley & Keaney, 1997; Griffin, Resick, & Mechanic, 1997; Zlotnick et al., 1994). To gain a clearer perspective of this experience, Werner and Griffin (2012) used the Peritraumatic Dissociative Experiences Questionnaire (PDEQ; Marmar et al., 1994) and the Clinician-Administered Dissociative States Scale (CADSS; Bremner et al., 1998) to examine symptomology in female survivors of physical and sexual assault. They established that salient symptoms in this population included “depersonalization” (p. 403), “derealization, numbing, time speeding up or slowing down, and changes in bodily sensations” (p. 405). It should also be noted that peritraumatic dissociation (PD) refers to dissociation experienced at the time of the trauma, whereas persistent dissociation refers to dissociation that can last indefinitely (Werner & Griffin).

Some research has suggested dissociation can be protective and adaptive. For instance, Farley and Keaney (1997) described it as a “psychological defense against traumatic events” (p. 34). However, dissociation likely impedes recovery if it becomes persistent (Kilcommons, Morrison, Knight, & Lobban, 2008). For example, when survivors undergo treatment they may be required to imagine or recreate in vivo experiences related to sexual assault. For this form of treatment to work effectively, survivors are usually required to be highly engaged in the process. But because dissociation removes a survivor from this noxious event, it is difficult to process it effectively. In other words, dissociation is problematic since it may reduce efficacy of treatments designed for sexual assault survivors (Werner & Griffin, 2012).

Dissociation may also negatively impact physiology. In support of this point, Hetzel-Riggin (2010) measured physiological responses to neutral, positive, frightful, or sexual assault-based scripts in females who had experienced either an attempted or completed sexual assault. Participants were categorized as either high peritraumatic dissociators or low peritraumatic dissociators, and as meeting criteria for PTSD, having subclinical levels of PTSD, or having no PTSD. Hetzel-Riggin found that peritraumatic dissociation in general led to increased physiological arousal. More specifically, peritraumatic dissociation (rather than PTSD) led to increased heart rate in response to the frightful or sexual assault scripts, as well as to increased skin conductance levels for the sexual assault script specifically. Thus, these findings suggest peritraumatic dissociation may place increased burden on the physiological systems of sexual assault survivors.

Moreover, peritraumatic dissociation seems to orient survivors towards cues of fear and threat rather than towards more positive cues.

It should be noted, however, that the literature on dissociation is somewhat contradictory. For example, studies such as the one outlined above support the notion that peritraumatic dissociation leads to increased physiological arousal. Yet other studies have argued it actually decreases arousal (Griffin, Resick, & Mechanic, 1997). Either way, these findings are germane given that other than war veterans, little is known about the physiology of trauma survivors (Hetzl-Riggin, 2010).

**Posttraumatic stress disorder (PTSD).** There has been much research conducted on PTSD in female survivors of sexual assault (Borja, Callahan, & Long, 2006; Cortina & Pimlott-Kubiak, 2006; Ullman, Filipas, Townsend, & Starzynski, 2007; Werner & Griffin, 2012). PTSD is an anxiety disorder characterized by reliving traumatic events, experiencing increased arousal, and hypervigilant avoidance of trauma cues (APA, 2000). These symptoms experienced in isolation can be quite distressing; however, PTSD is often a precursor for additional difficulties. For example, in their study of 200 undergraduate students (75 males and 125 females) Rutter, Krill, Weatherill, Orazem, & Taft (2013) found PTSD led to poorer health and exercise behaviours. Moreover, in their study of 1962 Veterans presenting at a Veterans Affairs mental health clinic, Shiner et al. (2012) found a PTSD diagnosis was associated with reduced functioning, higher symptomology, and comorbid anxiety and depression. Similarly, PTSD may also be associated with somatoform disorder

(Glaesmer, Kaiser, Braehler, Freyberger & Kuwert, 2012) and anorexia nervosa (Reyes-Rodriguez et al, 2011).

Given its potential consequences, it is important to note that sexual assault survivors may be particularly susceptible to developing PTSD (Shapiro, 1989). For example, Frazier et al. (2009) used an online survey to study the traumatic experiences and resultant symptoms of 1528 undergraduate students. Compared with individuals who witnessed a life-threatening situation, were in an accident, or faced an unexpected death, sexual assault survivors demonstrated the highest rate of PTSD symptoms. Similarly, it is also concerning that these symptoms tend to persist. For example, Kilcommons, Morrison, Knight, and Lobban (2008) recruited 40 sexually assaulted participants from a variety of settings, including a sexual assault referral center, victim support services, and student counselling services. Of the 40 participants, 35 were female. Participants ranged between 17 and 54 years of age. Twenty-six participants were interviewed while the remaining 14 completed self-report measures. Results from this study found two thirds of sexually traumatized participants still met DSM-IV criteria for PTSD on average four years later. Therefore, PTSD can pose unique and enduring challenges for sexual assault survivors.

**Depression.** There is also an established relationship between depression and sexual assault. For example, in their longitudinal study on the mental health of 4008 women exposed to various types of interpersonal violence, Hedtke et al. (2008) concluded that sexual assault was predictive of major depressive episode. Similarly, Kilpatrick et al. (2003) conducted a national study on substance

abuse/dependence, posttraumatic stress disorder, and major depressive episode. Participants were 4023 adolescents aged 12 to 17 years who were interviewed over the telephone. Regression analysis suggested sexually assaulted females were at increased risk of developing comorbid major depressive episode with PTSD. Furthermore, sexual assault was a risk factor for comorbid major depressive episode and substance abuse/dependence. Furthermore, Dunn, Gilman, Willett, Slopen, & Molnar (2012) empirically evaluated whether gender differences in adolescent depression were a result of girls higher exposure or sensitivity to violence. Participants were 5498 adolescents from the National Comorbidity Survey Replication. Types of violence measured were physical abuse, sexual assault (i.e., non-rape), witnessing violence, and rape. Findings indicated that all types of violence significantly increased risk for depression, but rape and physical abuse were particularly problematic. Furthermore, sexual assault and rape were found to partially explain why females rather than males were at greater risk for depression. Females were not found to be more sensitive to violence.

**Anger.** Another common side effect of sexual assault is increased anger. Amstadter and Vernon (2008) examined retrospective reports of guilt, shame, fear, sadness, and anger in 559 undergraduate students following physical assault, sexual assault, vehicular accident, or injury or sickness. After conducting repeated measures ANOVA, it was found that while all groups showed comparably high degrees of emotion during the trauma, sexual assault survivors indicated more emotion posttrauma than did the other trauma types. More specifically, results



demonstrated high levels of anger in survivors of physical and sexual assault. This pattern did not emerge across any of the other groups.

The literature suggests anger can also lead to other difficulties. For example, Feeny, Zoeller, and Foa (2000) studied the relationship between anger, dissociation and posttraumatic stress symptomology in 104 women who had been either physically or sexually assaulted. Measurements were taken at two, four, and twelve weeks post-assault. They found that at four weeks, anger was demonstrative of future PTSD severity. Moreover, in their review of the literature these researchers also noted that similarly to dissociation, anger can inhibit survivor engagement with traumatic memories, thus hampering healing. In addition, Connor, Davidson, and Lee (2003) used an online survey to investigate several types of trauma, including rape, child sexual abuse, and incest. Using a community sample of 578 men and 622 women, the researchers found that anger was associated with poorer physical and mental health. Moreover, it was also indicative of increased levels of trauma-specific distress.

**Sense of safety.** In addition to managing anger, establishing a sense of safety is often difficult for survivors since their experiences directly contradict this feeling. In comparison to other traumatic experiences, increased fear and decreased sense of safety appear particularly problematic for those who have been sexually assaulted. For example, Kaysen, Morris, Rizvi, and Resick (2005) conducted a study on 172 female sexual assault victims, 68 physical assault victims, and 80 victims of robbery. Participants were recruited from hospitals, victim services, and police departments. Analyses found that female sexual

assault survivors were significantly more likely to experience fear during the event than were survivors of robbery or physical assault. Similarly, they “feel less safe than those without an assault history” and live in extreme fear they will be victimized again (Culbertson, Vik, & Kooiman, 2001, p. 858).

This sense of fear and lack of safety are sometimes generalized to people and contexts outside of the assault. Ben-Ezra et al. (2010) found survivors associated the danger and malevolence of the perpetrator with all men. By making this generalization, survivors are at risk for social isolation and inability to establish meaningful relationships. Thus, reducing fear and bolstering sense of safety appear important for recovery.

**Body disgust/pollution.** In their literature review on women and sexual assault, Sarkar and Sarkar (2005) reported that sixty per cent of female survivors feel “polluted,” leading to washing behaviours (p. 413). Similarly, Clayton (2011) observed that survivors felt “dirty” (p. 129). Furthermore, in their article presenting two case studies of anorexia nervosa following sexual assault, Schechter, Schwartz, and Greenfeld (1987) argued this form of victimization led to body distortions including “fear of loss of bodily control, fear of mutilation, and feelings of disgust with one's body” (p. 314). Moreover, due to its intimate nature, sexual assault can lead to significant changes in body image (Schechter, Schwartz, & Greenfeld). These findings suggest the body can become alienated from the survivor, which will likely affect coping ability.

**Shame, blame, and self-esteem.** Shame and decreases in self-esteem are salient issues faced by sexual assault survivors (Perilloux, Duntley, & Buss, 2012;

Weiss, 2010). In relation to shame, Amstader and Vernon (2008) found that in comparing responses to vehicular accidents, sickness, injury, and physical and sexual assault, sexual assault was the only group where shame increased “dramatically” after the event (Amstadter & Vernon, 2008, p. 402). Shame can occur for a variety of reasons; however, the literature suggests it may stem from the perceived blame of others (Lalumiere, Harris, Quinsey, & Rice, 2005). In addition, blame may negatively impact help-seeking. A study by Ben-Ezra et al. (2010) demonstrates this point. One purpose of this study was to investigate the impact sexual assault had on the mental health of female survivors. These researchers found that because participants faced stigmatization and blame after sexual assault, they often did not seek treatment.

It follows that shame, blame, and lack of social support, coupled with negative internal assessments (Amstadter & Vernon, 2008) may create the perfect storm for developing self-esteem problems. For instance, Kulkoski and Kilian (1997) conducted a study on 76 women with histories of sexual assault. They found victimization significantly lowered self-esteem as measured by the Rosenberg’s Self-esteem scale. Furthermore, perceived decreases in coping skills and loss of personal honour (Amstadter & Vernon) may also help explain why a negative relationship exists between self-esteem and sexual assault (Kulkoski & Kilian).

**Spiritual impact.** There is considerable debate surrounding how to define spirituality or spiritual experiences. However, for the purposes of this study spirituality is considered present when “a connection with the transcendent”

occurs (Pargament, Koenig, Tarakeshwar, & Hahn, 2004, p. 715). Furthermore, it can include identification with a specific religious character, practicing a religious faith, identifying with a higher power, or interacting with nature (Rothschild, 2000). As suggested by these definitions, there are many ways of being spiritually connected.

Unfortunately, sexual assault can have deleterious effects on survivors' spiritual beliefs and traditions. In a study by Ben-Ezra et al. (2010), nearly half of those who were religious pre-assault moved towards secularism post-assault, thus demonstrating the tremendous impact this type of victimization can have on worldview. This is particularly concerning since religious or spiritual beliefs may bolster coping ability. For example, Bowland, Biswas, Kyriakakis, and Edmond (2011) described spirituality as "powerful" and influential for "the health and wellness of trauma survivors" (p. 319). Furthermore, such beliefs assist with ascribing meaning to, or reframing, extremely negative experiences. In turn, this reframing tends to promote greater well-being (Kennedy, Davis, and Taylor, 1998). Thus, a reduction in spirituality may result in lost opportunities for meaning-making.

### **Treating Sexual Assault**

There are a number of therapeutic approaches used to bolster mental health in sexual assault survivors. Prolonged Exposure Therapy (PE), cognitive approaches such as Cognitive Processing Therapy (CPT), Eye Movement Desensitization and Reprocessing (EMDR), and Emotion-Focused Therapy (EFT) are just a few of the many types of treatment available. First, I will provide an

overview of PE. Foa, Hembree, and Rothbaum (2007) developed an evidence-based model of PE which required survivors to relive elements of a traumatic experience either through imagination or in vivo. Such reliving stimulated the same fear response initially encountered during the trauma. However, this fear was extinguished through repeated exposure (Gallagher & Resick, 2012). It is important to note that prior to exposure, it is recommended that a clear rationale be provided for why such procedures are used. It is also recommended that survivors receive training on how to utilize their breath in order to moderate the experience of anxiety (Resick, Nishith, Weaver, Astin, & Feuer, 2002).

PE may also include body-based state-dependent recall exercises. State-dependent recall may occur by chance in a survivor's life, such as when heart rate increases or when specific emotions or mood states are felt. Furthermore, it may be purposely harnessed by reassuming a bodily position that was initially experienced during the traumatic event (Rothschild, 2000). Manipulating the body in this way may facilitate stimulation of, and subsequent processing of, emotions corresponding to the negative event. When judiciously used in treatment, state-dependent recall may enable a sexual assault survivor to begin processing her traumatic experience. At this time, the body of research evidence pertaining to efficacy of PE is growing (Gallagher & Resick); however, much potential still exists for studying the role of the body in processing trauma (Rothschild).

In addition to PE, cognitive approaches are also available. Castillo (2011) noted that 30 years of treatment literature suggests cognitive therapy is efficacious for working with survivors. This type of therapy may assist in altering negative

cognitions or beliefs stemming from sexual assault, which in turn may facilitate emotional improvement. For instance, the thought “I might be sexually assaulted again” may lead to feelings of fear or anxiety. Therefore, by changing the thought you may succeed in changing the feeling (Castillo). Cognitive Processing Therapy (CPT) is one example of an approach employing this method.

CPT was designed to work specifically with PTSD symptoms stemming from sexual assault (Resick et al., 2002). For example, a survivor may harbor distorted views about her role in the assault, such as thinking she is to blame, or she may generalize her experience to the rest of the world, which may be exemplified by the belief that all men are dangerous (Gallagher & Resick, 2012). CPT can involve a survivor writing a detailed account of her experience which she is then required to read. Survivors are encouraged to “stay with” the resultant feelings that emerge during this process. In doing so, particularly troublesome aspects of the assault which they have yet to move past may be revealed (Resick et al.). As this description suggests, there is some overlap between CPT and PE. For example, the former contains an element of exposure via the reading and writing of the sexual assault story. However, the main difference between the two approaches is a matter of emphasis; PE focuses mainly on exposure while CPT mainly targets maladaptive thoughts (Gallagher & Resick). PE may also be more easily adapted for work with the body.

In order to ensure best-practice, it follows that these therapeutic modalities should be evaluated. In this vein, Resick et al. (2002) designed a randomized, controlled, comparative outcome study examining efficacy of PE and CPT. Of the

121 participants, 40 were assigned the PE condition, 41 were assigned the CPT condition, and 40 served as controls. Researchers assessed which participants achieved “good end-state functioning” (p. 876) based on the same cutoffs as were previously implemented by Foa et al. (1999). These cutoffs were defined as a score at or below 20 on the PTSD Symptom Scale (PSS), and a score at or below 10 on the Beck Depression Inventory (BDI). At termination, there was a trend for participants in the CPT group to have better end state functioning than those in the PE group. However, at nine months post treatment, differences in end-state functioning were non-significant. Thus, overall results from this study indicated both PE and CPT were efficacious in reducing symptoms of PTSD in sexual assault survivors.

With this said, CPT demonstrated three advantages: firstly, it required only half the amount of homework as PE. Secondly, it required less time spent directly recounting the trauma. Thirdly, CPT group members reported fewer remaining symptoms of guilt post-treatment (Resick et al., 2002). However, it should be noted that some professionals have concerns regarding approaches such as PE or CPT since they subject the client to considerable amounts of anxiety (Shapiro, 1989). Thus, developing therapeutic methods for working with sexual assault that do not involve inducing anxiety seems germane.

EMDR is another approach which has been helpful. It was developed in 1987 when Francine Shapiro observed that after a series of rapid eye movements, a disconcerting event in her personal life became less troubling (Clayton, 2011; Shapiro, 1989). The eye movements associated with this treatment are commonly

elicited by the therapist moving a finger from left to right across the survivors' field of vision. While tracking the finger, the survivor is instructed to visualize a memory specific to the trauma and to allow related traumatic cognition or emotion to emerge (Shapiro). Dr. Shapiro was able to hone EMDR by working with sexual assault survivors and war veterans. In doing so, she found a limited number of sessions were required for symptom cessation. Today, EMDR is one of the most researched forms of therapy for use with trauma (Clayton; Shapiro).

A fourth approach for discussion is Emotion Focused Therapy (EFT). EFT has its roots in emotion theory and experiential therapy theory (Paivio & Nieuwenhuis, 2001). It espouses the idea that emotion plays a pivotal role in therapeutic change (Greenberg & Paivio, 1997; Greenberg & Safran, 1987; Paivio & Nieuwenhuis). Not unlike the previous approaches, EFT also implements exposure. In other words, in order to have a corrective experience, memories and emotions associated with trauma must be addressed.

However, unlike cognitive approaches, EFT does not explicitly focus on altering maladaptive cognitions. Rather, its premise involves allowing previously *overcontrolled* emotions to be expressed (Paivio & Nieuwenhuis, 2001). For example, it may not be safe for a young girl being sexually assaulted to express her anger. However, by exercising a high degree of control over this emotion, the young girl may lose the opportunity to glean information conveyed by anger (i.e., anger may reacquaint her with assertive behaviour and encourage her to enforce personal boundaries). In this way, overcontrolled emotions may in fact be *adaptive emotions* at the time of the assault (Paivio & Nieuwenhuis); however, to



facilitate moving forward from this potentially traumatic event, it is likely that overcontrolled emotions will need to be experienced and expressed. Similarly, EFT also differs from more cognitively-oriented approaches in that it emphasizes the therapeutic relationship (Paivio & Nieuwenhuis).

In contrast to PE and CPT, EFT has received relatively limited research attention in the sexual assault literature (Anderson, Fende-Guajardo, Luthra, & Edwards, 2010). However, a study by Paivio and Nieuwenhuis (2001) is a notable exception. These researchers sought to establish the efficacy of EFT in working with adult survivors of childhood emotional, physical, and sexual abuse. Both treatment and control groups were over 80% female. Furthermore, 50% of the treatment group and nearly 60% of the control group were childhood sexual assault survivors. EFT (Greenberg & Paivio, 1997; Paivio, 1996 as cited in Paivio & Nieuwenhuis) was administered one-hour per week over a 20-week period and results were largely generated using ANOVA and MANOVA analyses. These results suggested EFT is an effective means of treating different forms of childhood abuse, including sexual assault. Several areas showed improvement including: current problems pertaining to the abuse, interpersonal difficulties, and relationship with the self. Treatment gains remained at 9 months follow-up (Paivio & Nieuwenhuis).

While the approaches described above have contributed a wealth of knowledge to the field, they are not the only means by which to alleviate suffering. For example, Castillo (2011) noted that when treating sexual assault, exposure and cognitive therapies should be “supplemented or balanced” by other

forms of treatment (p. 93). Castillo also encouraged practitioners to explore options not defined as psychotherapy, including meditation, yoga, and spiritual practices since such methods contribute to the overall well-being of the survivor. Moreover, much of the research on treating difficulties associated with child abuse (including sexual assault) has been geared towards alleviating symptoms of PTSD. While beneficial, this may be problematic in that other symptoms go unnoticed and untreated. Paivio and Nieuwenhuis (2001) argued “the complex disturbances stemming from child abuse call for a comprehensive treatment approach that addresses not only symptomology, but problems with affect regulation, self-esteem, and interpersonal relatedness” (p. 116). Such recommendations seem to attest to the importance of working holistically.

In concluding this section it should be noted that while gains in sexual assault treatment have been made, a need for additional empirical research on the effectiveness and experience of treatment remains. Furthermore, ensuring survivors access treatment is another barrier to recovery. According to this review, most survivors do not seek treatment for physical or mental health problems arising from sexual assault (Kilcommons, Morrison, Knight, & Lobban, 2008; Turchik, Pavao, Hyun, Mark, & Kimerling, 2012; Ullman, 2008;).

### **Positive Life Experiences and Resilience**

As alluded to above, there may be factors in a survivor’s life aside from treatment that encourage healing. One such factor that has received considerable research attention is social support (Leech & Littlefield, 2011; Tummala-Narra, Kallivayalil, Singer, & Andreini, 2012). For example, Murthi and Espelage

(2005) conducted a survey with 116 college women who reported being sexually assaulted in childhood. One of the research objectives was to test whether or not social support (defined as support from friends or family) impacted the relationship between childhood sexual assault and sense of loss. Several dimensions of loss were examined including loss of self and loss of childhood. Through regression analysis, social support from family was found to moderate the experience of both types of loss. Similarly, support from friends was found to moderate the experience of loss of self, whereas a trend emerged between support from friends and loss of childhood.

In contrast to the wealth of knowledge regarding negative implications of sexual assault, there is limited research on how positive life experiences influence coping. Carlson and Dalenberg (2000) noted that “apart from research on social support, we know of no research on the effects of positive life events in persons with trauma histories” (p. 20). Although Carlson and Dalenberg’s assessment of the literature in this regard may be somewhat overstated, their point is well-taken. It follows that this lack of research has resulted in the sexual assault literature taking on a tone of pathology. In turn, survivor strength and resilience are largely overlooked.

One notable exception to this deficit focus is found in the work of Nick Todd and Allan Wade (2004). In their chapter from the book *Furthering Talk: Advances in the Discursive Therapies*, these authors provide a useful methodology for deconstructing violent behaviours such as those accompanying sexual assault. Their approach requires careful analysis of the actions of victims

and perpetrators; subsequently, examples of survivor resistance and perpetrator responsibility may be fleshed out. The following quotation elucidates why such analysis is important:

Victims are typically represented as socially conditioned and passive recipients of abuse. And while violent behaviour is deliberate...it is typically represented as an effect of social or psychological forces that overwhelm the perpetrator, cause him to lose control, and compel him to perform violent acts (pp. 145-146).

Thus, it is imperative to deconstruct such myths when working clinically as well as when contributing to the academic literature via research.

In order to begin the process of deconstruction, Todd and Wade (2004) recommend considering how language exacerbates such myths. They argued language can “conceal violence, obscure and mitigate perpetrators’ responsibility, conceal victim resistance, and blame or pathologize victims” (p. 146). In contrast, Todd and Wade’s approach involves looking for evidence to contradict these myths and thus provide a different perspective on violence. As an example, there may be the potential for bolstered strength and resilience if a survivor is able to label “freezing” during a sexual assault as a form of protection from further harm, rather than as a form of “inaction” that permitted the assault to occur. Similarly, Todd and Wade deconstructed Miles Davis’ account of the physical abuse he inflicted on his wife. For example, they urged the reader to consider the difference between Davis’ statement, “every time I hit her, I would feel bad” versus “every time I hit her, she would feel terrible pain” (p. 148). In doing so, they focused

attention on the consequences of the assault rather than on the perpetrators' feelings of remorse. These two examples serve to explicate how a survivor's actions during traumatic events can be understood as resistance, as well as how language can clarify a perpetrator's guilt and responsibility.

In addition to using language that highlights survivor strength and resistance, we should also consider what other factors facilitate power and healing. Spending time in nature may be a positive life event contributing to positive outcomes and thus should be further studied. By increasing the amount of research on healing, resistance, and resilience, we begin to re-write the story of survivors in the literature.

### **Nature and Healing**

**Ecopsychology.** The study of the relationship between human mental health and the natural environment is known as *ecopsychology* (Doherty, 2011). Although this relationship can be important for both men and women, some research suggests there are gender differences in this regard (Ulrich, 1981). Nurse, Benfield, and Bell (2012) conducted a study with 390 first-year undergraduate students (200 females and 190 males) to investigate whether significant gender differences existed in nature-based activities, motivation for sensory pleasure, and/or level of value assigned to natural environments. They found women had a unique motivation for sensory pleasure that differed from men, and that this motivation resulted in a unique relationship with nature. Furthermore, their work also suggested women are more engaged with nature and have more pro-environmental values and attitudes than do their male counterparts (Nurse,

Benfield, & Bell). Due to these proposed discrepancies, it may be important for ecopsychology to investigate healing through nature separately by gender.

In line with the above, the journal *Ecopsychology* released a special edition focused entirely on women and nature. The issue covered many important topics including body image (Hennigan, 2010), gender differences (Nurse, Benfield, & Bell, 2010), and cultural values (Bloodhart & Swim, 2010). However, it did not include an article on sexual assault. This suggests that both in mainstream psychology and ecopsychology there is a gap in knowledge surrounding the relationship between nature and how women heal from sexual assault.

Aside from differences between *how* men and women relate to, and subsequently heal through nature, ecopsychology is also concerned with *why* nature is healing. In other words, what is it about nature that makes it uniquely beneficial? Burns (1998) seems to provide a potential explanation. He explained that it is only recently in our evolutionary history that we have had contact with objects such as plastic and concrete. Since humans have spent relatively little time in the modern world, it makes sense that perhaps we heal most optimally in our “original” environment (i.e., nature). Therefore, what we perceive through our senses while in nature may facilitate wellness (Burns).

Because of this interconnection between our environment and our biology, nature may offer solutions for some of the distressing physiological problems arising from sexual assault. A number of researchers and scholars seem to support this position. In the book *Ecotherapy: Healing with Nature in Mind*, Messer Diehl

(2009) proposed that the sensual elements of gardening reduce stress and positively influence the body. She stated: “feeling the warm, moist soil in our hands, breathing in its earthy, rich scent, and anticipating its power to produce life are powerful experiences that have a positive impact on the body” and can “reduce stress” (p. 167). Moreover, physiological responses to natural and urban environments have been measured. Ulrich (1981) recorded the alpha amplitude of brainwaves while male and female participants viewed colour slides of either nature with water, nature without water, or city environments lacking both water and plants. Results demonstrated that alpha waves, which are indicative of a wakefully relaxed state, were higher while viewing the nature scenes as opposed to the city scenes. Since sexual assault is linked to anxiety disorders such as PTSD, creating a state of wakeful relaxation for survivors may be beneficial.

Similarly, Parsons, Tassinary, Ulrich, Hebl, and Grossman-Alexander (1998) filmed different environmental locations including a forest, a golf course, a city lacking natural phenomena, and a community providing a mix of urban and natural elements. These filmed environments were then shown to 160 male and female college students. Several different physiological measurements were recorded during viewing, such as autonomic activation (as indicated by electrocardiogram data), blood pressure, and skin conductance. Using repeated-measures ANOVA, they found autonomic nervous system activity increased for the man-made environments, suggesting non-urban environments are less demanding on our system. Moreover, after engaging in tasks requiring exertion, diastolic blood pressure was found to drop more rapidly when viewing or walking

in nature, compared to walking in a city or sitting in a room without a view (Hartig, Jamner, Davis, & Garling, 2003). Thus, nature may provide a means of reducing the physiological stress that sexual assault and its related disorders can induce.

**Introduction to nature-assisted therapy.** A preliminary framework has been developed by Ronen Berger and John McLeod (2006) outlining why nature is beneficial and how to incorporate it into therapy. They hope that a more comprehensive framework will emerge as an increasing number of professionals engage in nature-assisted therapy research and practice. This framework draws from a plethora of traditions such as gestalt, mind-body approaches, shamanism, adventure therapy, narrative therapy, transpersonal and eco-psychology, and art and drama therapy. In addition, one of its useful features is that it can be adopted into most treatment modalities (Berger & McLeod). The framework is built upon two assumptions. The first is that nature provides tools capable of encouraging cognitive, affective, physical, and spiritual health. The second is that the disconnection between humans and nature in the modern world reduces well-being and contributes to the mishandling of natural resources and environments (Berger & McLeod).

This perspective gave rise to four major sections of the framework. The first argues that nature provides a powerful therapeutic setting. Compared to the traditional office which tends to be a space owned by the therapist, nature is not controlled or owned by either therapist or client. Instead, working in nature “invites the therapist to flatten hierarchies” (Berger & McLeod, 2006, p. 84).



Creating a neutral, safe space in this manner seems fitting for working with individuals who may be disempowered by sexual assault. Thus, nature therapy addresses power differentials in therapeutic space and recognizes that setting can be an important part of therapy.

The second section of the framework encourages deliberate creation and use of rituals, some of which resemble shamanic rituals (Berger & McLeod, 2006). The premise here is that observable cycles in nature (i.e., sunrise/sunset, low tide/high tide) can provide metaphors for events in people's lives. They also serve as reminders of the life cycles we are all part of (i.e., life/death, past/present/future). Using rituals in this way facilitates the telling and normalizing of multifaceted stories since they can be linked to cycles experienced by everyone. Thus, nature is a channel through which people can create and obtain meaning (Berger & McLeod).

The third section supports a holistic approach to therapy with a particular focus on the mind-body connection (Berger & McLeod, 2006). Berger and McLeod fleshed out this principle with their case study of "Ran," a man with stomach problems which were nonresponsive to medical treatment. Subsequently, he turned to psychotherapy for assistance. Ran described the sensation in his stomach as being like that of "wet soil" or a "hot, wet sponge." He disliked talking about this sensation or what could possibly be causing it because it made him feel "invaded" (p. 88). However, Ran's therapist invited him outside to try touching some real wet soil. Initially, he expressed extreme dislike for this activity. But over time Ran became more comfortable and the activity

enabled him to get in touch with the sensation in his stomach. Connecting with the wet soil in nature allowed Ran to work indirectly with the “wet soil” sensation in his stomach. He was subsequently able to explore painful recollections from childhood related to this physical discomfort (Berger & McLeod).

The final section of Berger and McLeod’s (2006) framework pertains to the interconnection between all things and focuses on spiritual and existential benefits derived from time spent in nature. In the words of Berger and McLeod, nature has therapeutic merit in that “it broadens the perspective of the relationship with space and opens that relationship up to a much larger cosmic dialogue” (p. 90).

It should also be noted that while it is beyond the scope of this study to describe them, other various types of nature-assisted therapy frameworks have been developed. The interested reader should also consult Corazon, Stigsdotter, Moeller, and Moeller Rasmussen (2012) for a description of a framework incorporating mindfulness and acceptance-based therapy with gardening. Furthermore, although not a formalized framework per se, Hamama et al. (2011) provided a description of canine-assisted therapy activities and interventions designed for use with a group of sexually assaulted teenage girls. These activities were then mapped onto specific therapeutic goals. Moreover, Burns (1998) fleshed out how to utilize nature when working with trauma, anxiety, depression, cancer, pain management and couples. He also provided background information on clients, therapeutic rationales and tips for treatment planning, such as administering the Sensual Awareness Inventory. Finally, Annerstedt and Wähborg

(2011) conducted a systematic review of nature-assisted therapy which provides a comprehensive overview of the research to date.

Similar to the sexual assault research, a notable weakness in the nature-assisted therapy literature is a lack of clarity of terms. For example, *nature-assisted therapy* (Annerstedt & Währborg, 2011), *nature-guided therapy* (Burns, 1998), and *nature-based therapy* seem like similar constructs; however, concrete information regarding how these practices are the same or different is unclear. The same can be said for *adventure* and *wilderness therapy*. Moreover, while the term *nature therapy* seems specific to the framework by Berger & McLeod (2006), this framework may still be considered a manifestation of nature-assisted or nature-guided therapy. Undoubtedly, it would improve the research and practice in this field to clarify these terms. With this said, for the purposes of this study, *wilderness* and *adventure therapy* are used synonymously, as are *nature-guided*, *nature-assisted*, and *nature-based therapy*. However, I reserve the term *nature therapy* solely for reference to the work of Berger & McLeod.

**Animal-assisted therapy.** Animal-assisted therapy is one of the most common ways nature is incorporated into practice. For example, therapy dogs are often used to help children with autism (Silva, Correia, Lima, Magalhães, & de Sousa, 2011). Another form of animal-assisted therapy is known as equine-facilitated psychotherapy (EFP) which refers to working with horses. Garcia (2010) provided a rationale behind including horses in therapeutic work. She explained that tasks which accompany working with horses, such as grooming and riding, can be undertaken in pairs or individually. Such endeavors must

therefore be continually negotiated between the person and the horse, and if working in pairs, between the people as well. This process “assists in illuminating intra/interpersonal relationship styles, leadership approaches, and a range of emotional and behavioural issues such as fear/courage, dominance/partnership, empowerment/disempowerment, and clarity/ambiguity in communication patterns” (Garcia, p. 86). Furthermore, it has been suggested that horses are able to “project positive feelings, such as compassion and unconditional love, which in turn provides opportunities for corrective emotional experiences” (Garcia, p. 86). These aspects of therapeutic work seem beneficial for working with sexual assault survivors since fear (Calhoun, Atkeson, & Resick, 1982), disempowerment (Islam, 2009), and emotional difficulties (Amstader & Vernon, 2008) have been observed in this population.

Furthermore, because working with animals is not altogether uncommon, it is backed by a considerable amount of research evidence (Grandgeorge et al., 2012; Hamama et al., 2011; Marcus et al., 2013). For example, Kemp, Signal, Botros, Taylor, and Prentice (2013) conducted a program evaluation study on Phoenix House, an EFT program for childhood sexual assault survivors in Australia. Participants were six boys and nine girls aged 8 to 11 years, as well as 15 adolescent girls aged 12 to 17 years. The program at Phoenix House utilized group work and incorporated experiential learning activities such as acquiring the skills to back up a horse, asking a horse to walk in a circle around a person, or jump over an object. Activities were designed to work on issues with “trust, communication, boundaries, body-language, and self-perception” (np). Data was

collected at three time points: baseline; after six weeks of one-hour in-office counselling (prior to equine facilitated therapy); and again after completing 9-10 weeks of equine facilitated therapy. Measures administered to children and/or their guardians included the Children's Depression Inventory (CDI) and the Child Behavior Checklist (CBCL). Measures for adolescents included the Beck Depression Inventory (BDI), the Beck Anxiety Inventory (BAI), and the Trauma Symptom Checklist (TSCC).

For the child participants, ANOVA indicated significant improvement on CDI scores between Time 2 and Time 3. Similar to the results from the CDI, repeated measures ANOVA results for the CBCL also showed significant decreases in internalizing symptoms between Time 2 and Time 3. Moreover, externalizing behaviours also differed significantly between Time 2 and Time 3. For the data on adolescents', repeated measures ANOVA were also conducted. There was a significant reduction in depression, anxiety, dissociation, traumatic stress, and sexual concerns at both Time 2 and Time 3 on the TSCC. In all instances, score changes were greater between Time 2 and Time 3 than between Time 1 and Time 2. While the above findings suggest a burgeoning knowledge about animal-assisted therapy, a notable limitation is that most of the findings have been generated working with autistic children. Thus, there is limited information on effectiveness with other age groups and disorders.

**Adventure therapy.** Adventure or wilderness therapy is another fairly common method of incorporating nature into treatment (Magle-Haberek, Tucker, & Gass, 2012; Schell, Cotton, & Luxmoore, 2012; Tucker, Javorski, Tracy, &

Beale, 2013). This type of therapy may be conceptualized as “a combination of counselling and vigorous outdoor activities” (Levine, 1994, p. 175). Levine emphasized wilderness therapy “differs dramatically from taking a walk in the woods or camping for the weekend” (p. 176). Indeed, Levine described it as involving both educational activities and therapeutic group processing.

Adventure therapy thus has been successfully implemented with sexual assault survivors. Within this context, Levine explained the job of a wilderness therapy group leader may include assisting women in understanding their experience, setting up organized amounts of risk, and inducing fear in a safe environment. In doing so, self-confidence may be regained and fortitude developed. In other words, wilderness therapy provides unique opportunities which may help women move forward. The following quotation further demonstrates this: “they [women] are faced with physically challenging situations that evoke the feelings of helplessness that were experienced during the assault, only this time they are provided with the chance to conquer them, by climbing to the mountaintop, hiking the hill, or simply knowing and asserting their physical limits” (p. 175). Examples of wilderness therapy activities include rock climbing (Levine), spelunking or caving (Kelley, Coursey, & Selby, 1997), hiking (Russell & Phillips-Miller, 2002) and canoeing (Kelley, Coursey, & Selby).

While adventure therapy makes a relevant contribution to the field, it has been critiqued for overlooking the therapeutic value of more passive experiences with nature. Berger and McLeod (2006) explained that this approach has a tendency to conceptualize nature as a source of challenge and as a place where

clients complete tasks. As demonstrated above, such an approach has therapeutic merit for sexual assault survivors. However, “adventure therapy does not emphasize the emotional, metaphysical and spiritual aspects of nature” (Berger & McLeod, p. 81), which may also be beneficial.

**Horticultural therapy.** Horticultural therapy is similar to adventure therapy in that it often requires accomplishing a task (i.e., gardening). Based on their review of the literature, Corazon, Stigsdotter, Moeller, and Moeller Rasmussen (2012) explained this form of practice frequently centers on a single gardening task designed to meet specific needs or goals. The personal beliefs, resources, and preferences of clients are taken into consideration when selecting the task. However, both Millet (2009) and Corazon et al. noted that in conjunction with activities, horticultural therapy may also involve spending passive time in a garden. Overall, this approach is growing in popularity and has been used with children (Wagenfeld, 2009) and the elderly (Slavens, 2007-2008), as well as with clinical (Said & Bakar, 2007-2008) and nonclinical (Freeman, Dickinson, Porter, & van Heezik, 2012) populations. However, despite this growth, the work of Taft (2007-2008) suggests this form of practice remains on the periphery.

A well-articulated description of a horticultural therapy framework is presented by Corazon, Stigsdotter, Moeller, and Rasmussen (2012). This particular framework was designed for use with individuals off work on stress leave. It consists of marrying the psychotherapeutic techniques of mindfulness and acceptance therapy with gardening. This framework was developed in response to the researchers’ observation that nature-based therapy is becoming

more common yet still “lacks transparency.” For example, they argued individual practice is rarely contextualized within a theoretical framework. In addition, they noted that effects may not be clearly documented. These researchers recognized that such oversights could result in problems understanding the therapeutic processes involved in horticultural therapy, as well as in comparing different horticultural treatments. Thus, their work aimed to rectify some of these common oversights.

**Nature and stress.** There are several different methods outlined in the literature regarding how nature reduces anxiety or stress (Baldwin, 2012; Beukeboom, Langeveld, & Tanja-Dijkstra, 2012; Korpela & Kinnunen, 2011). Some include working with animals. For instance, by conducting t-tests on the PTSD Checklist-Civilian Version (PCL-C) scores of both the intervention group and the matched control group, Hamama et al. (2011) found that traumatized teenage girls, including those who had been sexually assaulted, demonstrated a “rapid decline” in PTSD symptoms when working with therapy dogs (p. 1975). Moreover, using a within-subjects design, Barker, Rasmussen, and Best (2003) exposed 42 patients awaiting electroconvulsive therapy to waiting room A (no aquarium) and waiting room B (with aquarium). Using repeated measures ANOVA, they found having access to the aquarium decreased self-reported anxiety by 12%. However, it should be noted that this result was a trend ( $p=0.08$ ) rather than reaching a significance level of  $p=0.05$ .

Others suggest plants can be useful. Beukeboom, Langeveld, and Tanja-Dijkstra, (2012) conducted a field study on patients in waiting rooms of a



Radiology department in a Dutch hospital. These researchers sought to determine whether plants and/or posters of plants present in waiting areas would relieve patient stress. Patients were asked to rate the waiting rooms using five different response options such as “pleasant-unpleasant,” and “friendly/unfriendly.” Stress was measured using the Profile of Mood States (shortened version) and the State Trait Anxiety Inventory (STAI-6). Using ANOVA, these researchers found that patients exposed to both real plants and posters of plants reported lower levels of stress compared with the control group. However, the real plants and poster plant conditions showed no differences, suggesting both were equally effective in reducing stress. Therefore research suggests that both animals and plants may assist in managing anxiety-related difficulties.

In reviewing this literature, however, it appears that minimal research has explored whether or not nature reduces stress in sexual assault survivors specifically. Given that to my knowledge, only one study investigated this relationship (Hamama et al., 2011), it follows that more inquiry is needed. Moreover, much of the existing literature on nature and stress-reduction pertains to patients in waiting rooms (Baldwin, 2012; Barkar, Rasmussen, & Best, 2003; Beukeboom, Langeveld, & Tanja-Dijkstra, 2012) and therefore effects in other populations remain unclear.

**Nature and depression.** Similar to the literature on nature and stress, we are beginning to accumulate considerable knowledge regarding the relationship between nature and depression. For example, Berman et al. (2012) wanted to establish if solo walking in nature benefitted individuals diagnosed with Major

Depressive Disorder (MDD). To do so, they designed a study comparing memory, rumination, and mood of walkers in urban versus natural environments. Affect and short-term memory were assessed prior to walking via the Positive and Negative Affect Schedule (PANAS) and Digit Span Backwards (DSB) respectively. The 20 participants were then prompted to recall an unsettled negative personal event to promote rumination. Subsequently, participants walked for approximately 50 to 55 minutes in one of the two settings. Upon returning, affect and memory were reassessed. Rumination was also measured by asking participants if they thought about the negative personal event during their walk. Results generated by ANOVA suggested memory increased significantly after the nature walk but not after the urban walk. The researchers noted that this effect size was five times greater than their previous work on a similar study conducted with a nonclinical sample. Similarly, a second ANOVA was conducted to measure changes in mood. Mood increased significantly after walking in both locations, however, the effect size was greater for the nature location as compared to the urban location. These results suggest that nature may have a significant impact on memory in depressed individuals. Furthermore, it may also help buffer the effects of rumination.

In addition, Peen, Schoevers, Beekman, and Dekker (2010) evaluated differences between urban and rural rates of psychiatric disorders. Using meta-analysis, they looked at prevalence rates from 20 population surveys conducted in developed countries since 1985. Only surveys implementing standardized structured interviews were included. Odds ratios demonstrated that prevalence

rates for anxiety disorders, depression, and “any disorder” were higher in urban settings. However, of all the disorders measured, rates for depression differed most between regions.

In conjunction with these quantitative studies, Burns (1998) included several case studies on nature and depression in his book *Nature-Guided Therapy*. One such case study involved a middle-aged depressed man named Bill, and how his encounter with a special wild dolphin named Simo helped alter his affect (also see Dobbs, 1987 as cited in Burns). The following vignette described how the meeting between Bill and Simo unfolded: “The dolphin loved him [Bill]. And we watched the man change from being apprehensive, scared, and withdrawn, to a smiling joyous person who became totally involved with the dolphin and forgot everyone and everything around him” (Dobbs, as cited in Burns, p. 162). In addition, Burns added that when Bill returned to shore “he was almost tearful in describing his experience and feelings to his family. His tears, however, were no longer those of depression; rather, they were tears of joy” (p. 162).

**Nature and the self.** Less is known about the relationship between nature and the self or identity. However, the literature that does exist seems promising. For instance, Hennigan (2010) studied how time in nature affected body image. She conducted in-depth, semi-structured interviews with 12 working, middle-class women between the ages of 24 and 54. Hennigan asked participants to describe their experiences in nature as well as how they felt about their bodies while there. Once narratives about these experiences were composed, they were sent to participants for member-checking. Two of the resultant themes are pertinent to the

discussion of nature and the self. Firstly, spending time in nature seemed to increase embodied experiences (i.e., promoted more bodily engagement). For example, one participant stated “[being out in nature] was the first moment where I actually felt like, ‘Oh, okay. This is what it feels like to be inside my own body, to stand inside my own skin, and look out through my own eyes’” (p. 138). Secondly, being in nature distanced women from the ideals of the dominant culture. The following vignette captured the essence of Hennigan’s finding:

I knew I stunk and was filthy and had longer hair than I do now and it was covered in weeds and it didn’t matter. It felt really good to be in that environment. That’s when friends and I started to notice that you start to feel really beautiful when you don’t have a mirror (p. 137).

Similarly, nature has demonstrated beneficial effects on self-esteem. For example, Maller (2009) studied teachers, principals, and environmental education professionals’ perceptions of the value of contact with nature for children’s overall health and well-being. The focus of the study was not on nature’s role in alleviating mental health difficulties; rather it was to explore how concrete experiences with nature impacted “normal” development. Using a qualitative design, Maller engaged in interviews with 30 participants. Findings suggested nature is beneficial for development of self-esteem in children. In addition, DeMayo (2009) noted that contact with horses can result in higher self-esteem and increased trust in one’s instincts and feelings. Similarly, both Hennigan (2010) and Burns (1998) suggested there is a positive relationship between nature and self-esteem.

Another potentially important factor for the self may be increasing feelings of empowerment. Some nature-based frameworks take this factor into consideration via the incorporation of shamanistic philosophies (Berger & McLeod, 2006). These philosophies, which were prevalent in traditional cultures, focus on the role of power in healing (Burns, 1998; Achterberg, 1985). This focus may be especially relevant for survivors of sexual assault who are often left feeling disempowered (Islam, 2009). Similarly, nature-based healing focuses on the interrelationship between all things (Berger & McLeod), which may also be important for survivors experiencing feelings of loneliness and isolation (Arellano, Kuhn, & Chavez, 1997).

### **Summary**

What the above review suggests is that sexual assault is a prevalent and significant problem in women's lives. It is associated with PTSD, depression, anger, reduced sense of safety, dissociation, body disgust, spiritual consequences, shame, blame, and reduced self-esteem. While treatments currently exist, most fail to consider the role nature may play in ameliorating such problems. This is a considerable oversight since the benefits nature has demonstrated seem directly relevant to the needs of survivors. For instance, nature may alleviate stress (Beukeboom, Langeveld, & Tanja-Dijkstra, 2006) and depression (Berman et al., 2012), as well as encourage a positive relationship with the body (Hennigan, 2010). However, despite this potential, there is a paucity of research on how nature facilitates healing with sexual assault survivors specifically. Therefore, we know very little about the topic. Furthermore, this review also suggests many

treatments for sexual assault involve reliving elements of the trauma. While effective, these approaches necessitate a considerable amount of anxiety. Thus, it seems relevant to study other approaches to treatment which do not rely so heavily on such tactics. Finally, the literature is rife with evidence demonstrating how women are hurt and marginalized by assault; thus, it seems imperative to compliment this work with evidence of how women heal. The following section on methodology illustrates my attempt to design a study which responds to some of these oversights.

### **Chapter Three: Methodology**

Selecting a methodology required me to go further than to a place of research; indeed, it demanded I grapple with the boundaries between my idea of what research is and my ontological and epistemological beliefs. Crotty (1998) explained that how we justify methodology and methods reflects our conceptualization of truth. It also reflects our understanding of what knowledge is and the status we ascribe to it. Similarly, Clandinin and Connelly (2000) encouraged those in the process of theoretically contextualizing their work to consider which kind of “conversation” they want their research to engage in (p.136). Thus, prior to delving into the specifics of my methods, I fleshed out the theoretical and philosophical foundations from which these methods were born. Crotty provided a framework which guided this process. His visual representation of this framework brought the metaphoric image of a four-tiered research “water fountain” to my mind: the top tier (epistemology) cascades down into the third tier (theoretical perspective); theoretical perspective then cascades down into the second tier (methodology); finally, methodology cascades down to the first tier (methods). In other words, each ideology of the tier above influenced the ideology of the tier below, until the ideologies of all tiers culminated in the selection of specific research methods.

#### **Epistemology**

Crotty (1998) defines epistemology as “a way of understanding and explaining how we know what we know” (p. 3). Epistemology demands that we ask ourselves questions such as “what is knowledge and how is it obtained?”

Similarly, Merriam (2009) suggested that in order to get a sense of our epistemological standpoint, we should locate qualitative approaches among other traditions. For example, positivist research believes objects have inherent meaning whereas qualitative research sees knowledge as created through more personal, interpretive means (Crotty; Merriam). The tradition with which our personal conceptualization of knowledge aligns will likely suggest to us our epistemology.

Similarly, certain epistemologies lend themselves to specific theoretical perspectives, methodologies, and methods (Crotty, 1998). For example, objectivism seems appropriate for positivism, survey research, and statistical analysis whereas constructivism appears well-suited to hermeneutics, narrative analysis, and conversational interviews. Therefore, by considering these connections I was guided towards constructivism as the epistemological standpoint for my research.

The constructivist belief is that truth and meaning are created (Crotty, 1998). Thus, different people may ascribe different meanings to the same object or experience. For example, riding a roller coaster may be labeled as “fun and thrilling” by one individual, while another may consider this same experience “nauseating and scary.” Because of the potential for various perspectives, this type of research seeks to highlight unique interpretations as well as iterating that all perspectives are equally worthy and valid (Crotty; Merriam, 2009). Similarly, use of constructivism in a narrative context suggests that researcher and participant co-create research text (Clandinin & Connelly, 2000) and that both of



their perspectives are reflected in the completed project. Thus, for all the reasons outlined above, constructivism is the epistemology I chose to guide my exploration of how nature assists women in healing from sexual assault.

### **Theoretical Perspective**

The next tier, theoretical perspective, provides me with the opportunity to explain the assumptions about human culture I brought to the research. It also serves to further clarify the context within which the research unfolded. In other words, my theoretical perspective provides me with a way of viewing and making sense of the world (Crotty, 1998). My research study was influenced by two theoretical perspectives: hermeneutics and feminism.

**Hermeneutics.** A hermeneutic theoretical perspective can compliment a constructivist epistemology in that both espouse the value of interpretation; in fact, a central idea underlying hermeneutics is the interpretation of text, including research text (McLeod, 2006; Merriam, 2009). Denzin and Lincoln (1994) stated that hermeneutics includes the belief that there is no one way to interpret truth. From this theoretical perspective, interpretation of text often occurs through what is referred to as *the hermeneutic circle*. In this circle, the researcher “moves back and forth between the part and the whole” of the text (McLeod, p. 27) allowing the whole to shape the understanding of the part and vice versa.

While in the hermeneutic circle, researchers must be vigilant in their quest to understand the emotional and interpersonal worlds of participants (McLeod, 2006), as well as understand the meaning participants attach to experiences in those worlds (Patton, 2002). Furthermore, when moving through the hermeneutic

circle, both text and researcher will change as they mutually inform the other about the meaning of the experience in question. In his book on the philosophy of Gadamer's hermeneutics, Warnke (1987) noted Gadamer referred to this evolution of text and researcher as a *fusion of horizons*. In addition to text and researcher, participants are also co-constructors and co-interpreters of knowledge (Clandinin & Connelly, 2000). They too will change in the midst of the hermeneutic circle.

**Feminism.** Since culture provides a way to view and understand the world, including how we view and understand women's experiences (Bordo, 1996) a feminist cultural lens was applied to this thesis. There are many reasons why a feminist perspective fit for this study, two of which I discuss here. Firstly, feminism is concerned with empowering women (Crotty, 1998). By integrating narrative methods into the research process, this ideology of empowerment can be concretely executed. For instance, narrative researcher Catherine Kohler-Riessman (1993) observed that "survivors of sexual crimes silence themselves and are silenced because it is too difficult to tell and to listen" (p. 3). Narrative research, however, may empower women by "giving voice to what is not well-represented in the science of human experience" (Josselson & Lieblich, 2003, p. 262). This act of breaking the silence by providing a space for survivors to tell their stories is a feminist act.

Secondly, how we read and interpret text can be a feminist undertaking. Many English words (for example, the word "mankind") imply a masculine voice and story. Rich (1990) argued for a "re-vision" (pp. 483-484) of literature which

involves using it as a means to understand women's lives, how they see themselves, and how they see the world, rather than taking for granted the meanings ascribed by the dominant culture. This process also involves "women naming things authentically for themselves" (Crotty, 1998, p. 182; Rich). This is an important re-visioning of text since it serves to highlight how women can be both "trapped" as well as "liberated" by language (Crotty, p. 181; Rich, p. 484). By making space for women to describe in *their own* language, *their own* story of healing from sexual assault, it is my hope that this thesis reflects a re-visioning of text. I believe DeVault (1999) succinctly captured the hope inherent in this process when she stated "in spite of obstacles to women's expression, language is a resource to be used, and in use, there are many possibilities" (p. 82).

### **Methodology**

My methodology (i.e., narrative research) provided a rationale for my choice of methods (i.e., interviews) and how the methods were employed (Crotty, 1998). For example, the ways in which I interacted with participants, my role as investigator, data collection and analysis, and so on, were all coloured by methodology. In addition, this framework shaped the organization, presentation, and overall feel of my thesis.

**Introduction to narrative.** The central idea behind narrative research is that people construct and use stories to make sense of their experiences, as well as to share these experiences with others. It is the stories told by participants that become the key source of data (McLeod, 2006). Stories can take many forms, including written or oral, and may be conveyed in a variety of ways, including

interviews and conversations (Chase, 2005). Narrative research may also involve looking for themes within and between participant stories (Bruner 1986; Polkinghorne, 1995). Similarly, participant stories are frequently shaped into research text. The data are reconstructed using a framework so that plot, time and place are fleshed out. It may also involve organizing the data so that it has a beginning, middle, and an end (Denzin, 1989a) and thus is organized chronologically (Czarniawska, 2004).

One narrative framework commonly used to create chronology and interpret stories is the three-dimensional narrative inquiry space by Clandinin and Connelly (2000). It proposes that the stories of people's lives can be interpreted along three dimensions. The first dimension encompasses the personal and the social, as well as their relationship to each other. The second dimension illustrates how time (i.e., the past, present, and future) provides connections and linkages within the story. The third dimension deals with the context or location where the story takes place.

The dimensions and how they interact can be further elucidated by examining Clandinin and Connelly's (2000) notions of direction (*inward, outward, backward, forward*). By inward, the authors are referring to internal states such as emotions, dreams, aspirations, and reactions. By outward, they are referring to existential conditions or the environment. By backward and forward, they are referring to elements of time such as past, present, and future. Considering these directions and their relationship to the dimensions provides the researcher with a richer understanding of the data. In this way, understanding and

constructing the story from many different angles demonstrates how narrative research may be a natural fit when working from a constructivist epistemology.

**My narrative voice.** In contrast to other approaches in the social sciences, qualitative research invites researchers to use the first person when writing (Clandinin & Connelly, 2000). Subsequently, this form of writing is sometimes reflected in this thesis. For further reading on voice in narrative work, I referred to Chase's (2005) typology of voices. This typology described multiple voices that researchers may speak in, two of which are applicable to this project: the authoritative voice and the interactive voice. Firstly, the authoritative voice involved including excerpts of participant stories told in their own words (essentially quieting my voice) followed by my interpretations of the excerpts (my authoritative voice; Chase). Secondly, the interactive voice allowed me to share my concerns, emotions, and thoughts as I moved through the research process. Its use demonstrates my belief that if I am to understand how I work with and interpret participant stories, it is imperative to understand myself within the research context (Chase). Lastly, in using my voice in both the research text and interview spaces, I was cognizant of the tradition of *women talk*. DeVault (1999) described women talk as emerging when women interview other women and together they develop ideas and cooperate to create meaning. Subsequently, this awareness and use of voice appeared congruent with both narrative and feminist traditions.

**Participant voices.** There are many reasons why it is important for participants to speak and be heard, but I will discuss two reasons in particular.

Firstly, telling stories appears to facilitate survivors' making sense of experiences such as sexual assault. For example, in reference to women who have experienced sexual violations, Kohler-Riessman (1993) argued that one fundamental way individuals make sense of their experience is "by casting it in narrative form" (p. 4).

Secondly, participants have the potential to contribute to the current conceptualization of what it means to heal from sexual assault. Chase (2005) stated that "the stories of many marginalized groups have changed the contemporary narrative landscape-to name just a few...the survivors of gendered and sexual violence" (p. 668). Thus, participant voices have the potential to be very powerful contributors to our understanding of this topic.

**Audience.** First and foremost, it may be important for women to hear their own stories. Chase (2005) explained that the process of narrating a significant life experience may in-and-of-itself create positive change. In these instances, the story-teller is able to hear different accounts of her identity and life experiences. Being one's own audience can have a "radical impact" on the narrator, since she may "discover her thoughts, learn who she is, and find her voice" (Reinharz & Chase, 2002, p. 225).

## **Methods**

Methods can be understood as the tools and processes used to collect and analyze data in response to a hypothesis or research question (Crotty, 1998). It is these techniques or procedures that help us better understand our topic of study.

When using a narrative approach, methods are often chosen based on their ability to capture personal experiences (Denzin, 1989b).

**Participant recruitment and sampling procedures.** When working narratively, often very few participants are included. This is due in part to the fact that narrative research attempts to obtain in-depth understanding and thick descriptions of the personal experiences of a few, rather than generalizing many experiences to the population (Chase, 2005). Given this fact, four participants were recruited for the study. Furthermore, because narrative research does not attempt to generalize, a purposeful sampling method was employed. Purposeful sampling involved selecting participants based on their ability to purposely inform me about the specific research question (Creswell, 2007).

In order to recruit participants, posters advertising the study were placed at several Edmonton locations, including the University of Alberta Education Clinical Services (and various other bulletin boards around campus), yoga studios, lifestyle cafés, outdoor living and grocery stores, as well as coffee shops. In addition, on two occasions an advertisement was placed on The University of Alberta's Faculty of Education listserv.

**Inclusion criteria.** This study had several inclusion criteria. Firstly, participants must have had what they would define as at least one experience in nature that helped them heal from sexual assault. It should be noted, however, that the word "healing" was not defined for participants; rather, in the spirit of providing a space for women to use their own voices, they were invited to define what this process entailed for them. Secondly, participants needed to be willing to

share stories of their experiences as well as answer questions about them.

Thirdly, only women who were 18 years of age or older were recruited. Fourthly, participants needed to be open to being co-researchers. This required them to engage in at least two interviews and review drafts of the research text. The researcher attempted to underscore that clarification and feedback from participants was integral to this project.

### **Data collection**

**Interviews.** In this study, I asked participants to engage in an initial, in-person, semi-structured conversational interview lasting approximately one hour. At the onset of the interview, participants were provided with an information document to read (*Appendix A*) and a consent form to sign (*Appendix B*). As a narrative researcher I attempted to facilitate interviews that were conversational in nature. Denzin (1989a) described this type of interview as a space where people share information openly and creatively in the quest for heightened self-understanding. Similarly, engaging in a conversational interview reflects an awareness of the power dynamics inherent in the interview process. For example, Denzin synthesized a wealth of research suggesting the interview relationship should not become a space where one person does all the sharing, while the other asks all the questions. When interviews take this form he describes them as “asymmetric...social relations in which the power of the social sciences determines the information given” (p. 43). Similarly, some feminist researchers critique interviews that imply “a distant and hierarchical relationship between the interviewer and participants” (Reinharz & Chase, 2002, p. 227). Thus, I attempted



to facilitate interviews that honoured a conversational style and emphasized the importance of the co-construction of the research interview space. Similarly, I attempted to make the questions I asked clear by using familiar language rather than jargon and was also cognizant to respect participants' world view (Merriam, 2009). This use of a conversational interviewing style appears congruent with both a narrative approach as well as a feminist theoretical perspective.

Two of the initial interviews were conducted at the University of Alberta Education Clinical Services, and two were conducted at participant's homes. I worked from a general list of questions that helped guide the conversation (*see Appendix C*), but the order and phrasing of questions was varied to fit each participant (Denzin, 1989a). Participants were also invited to share any other information they felt was important to their story. Participants were later provided with my transcription of the first interview via Dropbox, a confidential and secure online data sharing program. This was done to ensure confirmability of the information provided. For example, participants were asked to comment on transcription accuracy. They were also invited to inform me if there were any additions or changes needed. Next, second interviews were conducted over the phone and served to clarify my understanding of information presented in the first interview. Furthermore, this second interview also provided the opportunity to ask follow up questions stemming from material gathered during the first interview. Moreover, it allowed participants to share any additional information about the research question that may have been missed during the initial meeting. However, after multiple attempts at contact both by email and phone, one

participant did not complete a second interview. I transcribed four of the interviews verbatim, and a transcriber transcribed the three remaining interviews. Transcriptions were double-checked against audio recordings for accuracy. All pauses and notable paralinguistic episodes (i.e., laughing, crying) were indicated.

Furthermore, once interim texts were drafted, participants were invited to peruse them and provide feedback. *Interim text* is a term applied by Clandinin and Connelly (2000) to refer to texts that exists in the space between field texts and finalized research texts. In this study, interim texts were the drafts of participants' narratives and summary of thematic analysis forwarded to them for feedback. It was underscored that my interpretations of the narratives and themes aimed to flesh out participant's experiences of healing from sexual assault through nature. Thus, I encouraged them to point out if I had misinterpreted their meaning. This served as a member-check for accuracy and validity (Merriam, 2009). See the establish credibility through member-checks section for further details.

**Field texts.** Field texts play an extensive role in narrative work. My thesis was created in part by carefully studying, analyzing, teasing apart and putting back together in a new way the materials available in field texts. Clandinin and Connelly (2000) described field texts as tending to be descriptive, not intentionally reflective, and as having a recording quality about them. They also described them as being close to lived experience, which implies they are further from interpretation.

Although field texts come in many forms, including photographs and letters, the two types most relevant to this work were interviews and field notes.

Since interviews are described above, I will only deal with field notes herein.

Clandinin and Connelly (2000) described field notes as documentation burgeoning with the details and moments of our time in the field. My field notes contained observations made during the interview process such as noting participants' dress, and descriptions of the settings in which the interviews took place.

### **Data Analysis**

As discussed in the hermeneutics section above, narrative data analysis is a recursive process. Clandinin and Connelly (2000) spoke to this when they emphasized that narrative research is not a series of steps; rather negotiation between field text and research text occurs from start to finish. It is important to note that throughout analysis, I attempted to respect my own interpretive process. However, this process was heavily influenced by other narrative thinkers who came before me (i.e., Bruner, 1986; Kohler-Riessman, 1993; Clandinin & Connelly, 2000; Polkinghorne, 1995; Denzin, 1989a & 1989b; Price, 2004). Their voices intermingled with my own as I attempted to tell participants' stories. Furthermore, methods outlined by Merriam (2009), and Braun and Clarke (2006), also influenced data analysis. Thus, what follows is a general description of how I analyzed the data.

Bruner (1986) differentiated between two methods of thinking and working narratively. Drawing on Bruner's seminal text, Polkinghorne (1995) described the first method as taking events and occurrences as data and using them to create explanatory stories. This approach emphasizes the specific and

unique elements of each action, as well as the diverse ways people behave (Polkinghorne). The second method uses participants' stories to determine common categorizations or themes. In contrast to the first method, the second method focuses on what is common among experiences (Polkinghorne).

I employed both approaches in my thesis. I also utilized Clandinin and Connelly's (2000) framework to contextualize each woman's story of healing from sexual assault through nature. To do this I: (a) engaged in several readings of field texts in order to summarize them and capture the essence of their meaning; (b) made tentative speculations about chronology of events in each transcript; and (c) considered elements of dimension (i.e., character, setting, temporality), while also fleshing out elements of direction (i.e., inward, outward, backward, forward; Clandinin and Connelly). The second and third steps facilitated construction of plots (Polkinghorne, 1995). Furthermore, considering key events and epiphanies was also important for plot construction (Denzin, 1989b; Creswell, 2007). In addition, themes were identified to facilitate the writing of narratives as well as for conducting thematic analysis across participants. Narratives were approximately five to six pages in length, and contained both the themes which were common across the majority of participants, as well as more unique details and themes applicable to only one or two participants. In addition, for the creation of an audit trail, the phases of analysis by Braun and Clarke (2006) were utilized. These phases consisted of: familiarizing myself with the data, generating initial codes, searching for themes,

reviewing themes, defining and naming themes, and producing the report. How I applied these phases to my study is fleshed out in my memos.

Some key points should be noted here. Firstly, throughout analysis, I considered the meaning and significance of field texts, which signified their transition from field text to research text (Clandinin & Connelly, 2000). In other words, I interpreted the data rather than simply organizing it. Secondly, the Atlas.ti computer program was used to facilitate data organization. For example, it provided the opportunity to link memos to data. Thirdly, if significant events or actions found in the data conflicted with my tentative conceptualizations of plots or themes, these conceptualizations were revised. For example, by double-checking in this way, it became apparent that one of my themes did not adequately capture participants' experiences. Subsequently, this theme was revised.

### **Ethical Considerations**

Given the central role ethics play within narrative research, it would be impossible to discuss implications from every possible angle. However, the central concerns around nonmaleficence, confidentiality/anonymity, and informed consent will be fleshed out below.

**Nonmaleficence.** Firstly, one of the foundational ethical principles is nonmaleficence which means “not causing harm to others” (Truscott & Crook, 2004, p. 6). Although the central focus of my research concerned healing from sexual assault (rather than a deep exploration into the experience of the assault itself) I recognized the potential of my study design and research question to

resurrect negative memories. For instance, because narrative research necessitates thick descriptions (Clandinin & Connelly, 2000) it opens up the potential for participants to revisit their assault in great detail, which may cause distress. Subsequently, I wanted to build strategies into the research process that promoted participant safety. For example, if they became upset during the interview, participants were invited to take a break or reschedule as needed. Similarly, contact information for counselling services was offered. Finally, participants were informed they could withdraw from the study at any time without penalty.

**Confidentiality and anonymity.** Secondly, when dealing with stories of a potentially sensitive nature, confidentiality and anonymity are important. Creswell (2009) invited researchers to consider how the study will protect “the anonymity of individuals, roles, incidents, and places” (p. 91). In response to this consideration, all participants were assigned pseudonyms (while legal names appear on consent forms). Similarly, standardized notation and/or pseudonyms were used in place of identifying locations or names of individuals associated with the participant who were mentioned during interviews. Moreover, any other potentially identifying information was changed or purposely kept vague (e.g., information pertaining to career). Furthermore, participants were informed that all information is strictly confidential and would be treated accordingly. Both field texts and research texts were kept on a password protected computer and/or in an encrypted file. Hard copy data was kept in a locked filing cabinet. Moreover, it was explained that interviews were audio-recorded and only the research team

would have access to these recordings. Participants were also made aware that a transcriber would be utilized, and that this transcriber was required to sign a confidentiality agreement (see *Appendix D*). Only the principal researcher was aware of participants' real names. It was also explained that all data would be retained for a minimum of five years after the conclusion of the study, as this is a requirement of the Research Ethics Board of the University of Alberta.

**Informed consent.** Thirdly, informed consent acknowledges that individuals' rights will be safeguarded during the study (Creswell, 2009). This ethical issue should remain salient at all times during the study (Clandinin & Connelly, 2000). In this thesis, participants were informed that participation was voluntary. They were free to withdraw from the study at any time without consequence. Participants were also invited to ask questions at any time, and could refuse to answer specific questions or address certain subject matter. In other words, I attempted to engage participants in an ongoing dialogue around issues pertinent to informed consent. In addition, prior to data collection, the nature of the study was explained to participants verbally, as well as through information and consent forms.

### **Evaluating the Study**

McLeod (2006) suggested that a quantitative understanding of validity does not readily transfer over to the qualitative realm, especially if the researcher works from a constructivist or hermeneutic perspective. This is because these perspectives reject the idea that one ultimate reality exists and can therefore be defined and studied. Furthermore, qualitative researchers work in the world of

words rather than in the world of numbers. By their very nature, words are “slippery”; language is both “ambiguous and figurative” and thus agreeing on validity based on sets of scores is not possible (McLeod, 2006, p. 182). Instead, Creswell (2007) described validity in qualitative research as “an attempt to assess the ‘accuracy’ of the findings, as best described by the researcher and the participants” (pp. 206-207). Although ways of *establishing* validity may differ between quantitative and qualitative research, the underlying question *about* validity remains the same: How do we know if our research is good research (McLeod)? Outlined below are several criteria I considered in order to bolster the quality of this study.

**Establish credibility through member checks.** Credibility can be defined as “whether the participants’ perceptions match up with the researcher’s portrayal of them” (Bloomberg & Volpe, 2012, p. 112). The idea of engaging in credibility checks is endorsed by many leading qualitative researchers (Lincoln & Guba, 1985; McLeod, 2006; Creswell, 2009). One method of ensuring credibility is to engage in member-checks. Member checks involve presenting participants with either oral or written accounts of field texts and research texts, and asking for feedback on accuracy (McLeod). In this study, participants were asked to review interview transcriptions, narratives, as well as themes. Although constructivist, hermeneutic, and narrative traditions resist the notion of one “correct” version of a story (Clandinin & Connelly, 2000) the aim of these reviews was to ensure my version resonated with those about whom I am writing.



**Owning my perspective.** McLeod (2006) suggested researchers make clear their “theoretical orientations and personal anticipations, both as known in advance and as they become apparent during the research” (p. 186). Similarly, Creswell (2009) suggested researchers clarify the biases they bring to the study. In doing so, we own our perspective. I found memoing assisted with this process. Memoing provided the opportunity to note discrepant information or explore evidence that challenged my interpretations (McLeod; Creswell). For example, over the course of my research there were several instances where I made assumptions that were contradicted by the data. Firstly, although I was initially unaware of it, I assumed that healing experiences in nature would occur during clement weather. However, this assumption came to light when several participants disclosed healing experiences that occurred in winter. Similarly, I had assumed certain aspects of nature would be frightening for survivors (i.e., being alone outside, certain animals/insects). However, participants informed me that being alone outside was healing. Furthermore, one participant noted she had no difficulty sleeping while listening to rats scurry about in her surroundings.

Next, it is important to note that due to the nature of qualitative research, I provide a “partial” perspective that is “open for reinterpretation by others” (McLeod, 2006, p. 189). Subsequently, I recognize there are multiple ways of analyzing and interpreting the data, thus resulting in potentially different findings. Finally, I attempted to own my perspective by indicating what was spoken by participants and what were my analyses and interpretations of these spoken words.

**Dependability.** Dependability is a form of reliability in qualitative research. According to Lincoln and Guba (1985), dependability works to ensure that findings are consistent with data. One method of increasing dependability of a study is to keep an audit trail of decisions and interpretations made along the research journey (Lincoln & Guba; Bloomberg & Volpe, 2012). These decisions and interpretations may include why a theme was added, dropped, or renamed. Furthermore, an audit trail provides the opportunity for another researcher to confirm, or question, aspects of the study. In this way, exactly how the researcher came to their conclusions becomes apparent (Bloomberg & Volpe, 2012). In order to promote dependability in my study, I applied the framework by Braun and Clarke (2006) to my research. This framework consists of six phases of research, each of which required decision-making and execution.

**Transferability.** Transferability or generalizability is concerned with the amount to which one's findings can be extrapolated to other individuals or situations (Merriam, 2002; Trochim, 2006). In many cases, qualitative researchers do not seek to generalize their work to the population at large; rather, they seek to ensure a topic is explicated as thoroughly as possible and incorporates participants who belong to a specific group (Jensen, 2008). In the current study, I attempted to thoroughly elucidate the topic by implementing a purposeful sampling technique (Creswell, 2007). This helped ensure that the specific group I was interested in was indeed being studied. Furthermore, Merriam recommended that researchers provide thick, detailed descriptions of all facets of the study. This allows readers to determine for themselves whether or not the study is applicable to their

situation. In other words, the onus is on the researcher to be as clear and explicit as possible about their work, so that other readers can determine its generalizability. I endeavored to meet this requirement via an in-depth explication of methods, as well as by paying careful attention to data analysis and presentation. Moreover, Merriam also suggested implementing a multisite design or *maximizing variation*. Maximizing variation refers to gaining as much diversity as possible within a purposeful sample. This may mean gathering data from several different locations. Accordingly, participants in the current study were recruited from a variety of settings including a yoga studio, an outdoor recreation retail outlet, and a listserv.

### **The Researcher's Story**

My desire to undertake this project stems from both personal experience and professional observation. First, I will speak to the former. I grew up in a small town west of Ottawa, Ontario. In doing so, I was fortunate to spend a great deal of time playing outdoors. One of my favourite places was a field close to my house. The field had long grasses, ground hogs, and many types of birds, insects, wild flowers and plants. Some homes had backyards bordering this field. I have a fond memory of a friend and I hopping over a fence from the field, into one of these backyards, in order to steal several ripe pears from a tree the owner had neglected to harvest. I loved all the things I did, and how I felt, in “my field.”

Fortunately, I had teachers who fostered this love and appreciation of nature. For example, in elementary school my class was given an assignment to pick a “patch” somewhere outside, and spend five minutes each day observing it.

We were to record our observations in a “research journal.” My patch was located in the field described above. There were many lively classroom discussions about what we learned through the patch exercise. Thus, my current scientific interest in nature has its roots in these early positive learning experiences. As an adult, I am still playing in, and studying, nature. I enjoy running or cross-country skiing on the trails in and around Edmonton. Furthermore, I often seek natural spaces for prayer and meditation when facing significant life stresses.

Clearly, choosing to include nature in this study stems from my own life history. Personal experience pertaining to the research question is a common motivation for choosing narrative (Josselson & Lieblich, 2003). Thus, it seemed an appropriate method for me as a researcher, as well as a logical choice to achieve my research goals. However, personal experience was not my sole motivation. As noted above (and demonstrated below) professional observation also played an influential role.

During my graduate training in psychology, I observed many psychotherapeutic interventions utilized nature (i.e., mindfulness, compassion-focused exercises, and guided-meditation). Furthermore, some clients I worked with chose to spend their free time outdoors. This seemed to rejuvenate and relax them. It was not uncommon for one client in particular to present at our sessions with a huge smile on her face after “spending a weekend in the mountains.” Doing so had a clear impact on her well-being. Subsequently, I wondered why nature was rarely considered a major component of psychological health or intervention. Similarly, I wondered why more research with an explicit focus on

nature did not exist. Thus, I wanted to undertake a study that would help close the gap in our knowledge around the role of nature in healing.

By this juncture I have explained why I wanted to study nature. However, I have yet to explain why I chose to work with female survivors of sexual assault. In conversation with my supervisor, we considered the possibility of focusing on war veterans or survivors of sexual assault. Although both groups were well-suited to my thesis, Hetzel-Riggin (2010) noted a “wealth of information” on impact of trauma on war veterans, in comparison to a relative lack of information on other traumatized populations, including female victims of sexual assault (p. 193). Moreover, I had learned about *negative* physiological implications of sexual assault (Rothschild, 2000) as well as how nature influences physiology in *positive* ways (Burns, 1998). Thus, I saw a need for more research with sexual assault survivors, as well as a potential connection between healing from sexual assault and the literature on healing through nature. Subsequently, this project was born.

### **Chapter Four: Findings**

Establishing resources is the cornerstone that supports the process of unfreezing and reassociation in trauma work. Bringing to consciousness the way that people already resource themselves can affirm empowerment and choice (Turner & Diebschlag, 2001, p. 79).

In this chapter I present narrative accounts of women's stories of healing through nature; following the narratives is a section on common themes. It should be noted that all names have been changed, including those of animals, to ensure confidentiality. Furthermore, in the interview excerpts, the abbreviation "I" represents "interviewer" and "P" represents "participant."

## Participant Narratives

### Alexandra.

I: Can you describe what it was about nature you found most healing or beneficial?

P: Being able to relax and forget anything else and just be there in the moment. I didn't have to work at it. It was just there.

I: So what differences did you see in yourself during these experiences? Was there anything that changed for you during that time?

P: I was more connected.

Alexandra, April 2011

When introducing my thesis topic to Alexandra, she expressed concern over the fact she was not “healed” or “completely over it.” Instead, she informed me that nature made her “feel better” or helped her “cope.” Due to these semantic differences, she was unsure whether or not she was a suitable participant. I assured her that each participant may ascribe her own meaning to the experience of healing and this was perfectly acceptable. So although I implemented this word into my research question, it should be noted that to Alexandra, healing was best defined by the words “feel better” or “coping.”

Shortly before our first in-person meeting I was preparing our interview room. There were two paintings on the wall reminiscent of The Group of Seven. As I waited, I turned off the overhead lights in favour of using table lamps for a softer ambiance. Alexandra arrived dressed casually in sandy-coloured corduroy

pants and a green tank top. She appeared quiet and serious at first and perhaps even a bit wary. She sat rather stiffly, her arms at her sides and hands in her lap.

She spoke very softly and slowly as we began our conversation. I learned she was a Ph.D. student in her early 30s who was born and raised in Eastern Europe before moving to Edmonton in her mid 20s to pursue graduate studies. I also learned Alexandra experienced multiple sexual assaults. In childhood, transgressors included a teacher, an individual who lived in her apartment building, as well as several anonymous individuals whom she came into contact with while riding the bus. During her teen and early adult years, she was victimized by coaches. Most recently in Canada, she was assaulted by her partner. Such victimizations have led to a nearly lifelong battle to move forward from sexual assault; however, Alexandra described nature as helping her in this regard.

As our conversation continued, Alexandra slowly revealed details of her life. She recalled fondly her time spent in training camps for competitive sports back home in Europe. She attended these camps from the time she was 12 until her late teens. One camp was located by the sea, and thus enabled her to spend a significant amount of time on the beach. She described for me what it was like there:

The part where the water is not that deep was a little bit greener, and then the water that is deeper was a little bit darker. It smelled like salt and algae. The sand had a lot of seashells in it so I wasn't comfortable walking on it without flip flops... There were gypsies walking back and forth



selling sunflower seeds. There were usually lots of kids at the edge of the water where they would build sand castles.

In addition, Alexandra attended winter training camp in the mountains.

She often spent her time there running through the snow with her teammates:

It was winter when we were in training camps in the mountains. We ran either in the evening or morning when it was still dark, and the street lights reflecting off the snow made a reddish kind of light. We could see the smoke coming from the chimneys [of the houses] because the peasants who lived there used wood stoves. The houses had little gardens out front. Sometimes we would find birds, like turkeys and hens, running with us. And there was the squeak too, the squeak from the snow. The snow was white and undisturbed. So that was the image back home.

Although she was not aware of it at the time, she later came to realize her experience with nature in these camps played a large role in her healing. When asked what was particularly beneficial, for example, Alexandra identified her ability to access the feelings of safety and relaxation she experienced in camp, while immersed in similar natural settings. When she currently feels anxious about the assaults, she seeks out sunshine, beaches, or the snow. These phenomena increase feelings of calmness; feelings which often elude Alexandra when she is elsewhere:

On the sunny beach, it was the warmth of the sun that allowed me to relax. It's really hard to relax everywhere. But I was relaxed when I was in training camps [on the beach] and I can go back to that.

Similarly, going outside during snowy Canadian winters transported Alexandra back to the familiarity of camp. Since she felt safe there, she was also able to feel safe in other environments akin to it:

I: So there is something about the dark? You like the lights reflecting on the snow? And how does that make you feel? Or how does that influence your thinking?

P: At home.

I: It makes you feel at home?

P: It makes me feel like I did in the training camps; in that safe environment. The day was so short that it would be dark in the mornings and evenings when we would train. I guess it is the comfort of that familiar environment.

Furthermore, Alexandra emphasized:

I always felt good in the training camps by the sea or in the mountains, so I think I'm trying to feel that again. I'm trying to feel safe because we were pretty safe up in the mountains; there were no people to attack or bother us.

Moreover, she shared that simply viewing photos of nature assisted with feeling safe. Alexandra recalled a recent therapy session where she identified "safe" environments, and then used photos of them to create a collage:

Anytime I came across a picture of nature, I cut it out and made it into my own collage. I asked her [the therapist] why I needed to do this, and she said because she wanted me to have a safe place at home.

Aside from settings reminiscent of training camp, Alexandra found being in water helped vent emotions, most notably anger. She stressed that while sports, including swimming, assisted her recovery, being in the water was of upmost importance:

I think my sports definitely helped me keep my mind straight, but that wasn't enough. So it wasn't the fact that I was swimming; it was the fact that I was in the water and could use it as a punching bag.

She also described water as helping her feel "clean":

When my face was in the water, the water went like this [gestured splashing over her face]. And when I got out, I could still feel the water going down my face. I even felt it in the shower and that felt clean. I felt like something was off me.

Due to her history, Alexandra had difficulty navigating social relationships, trusting others, and voicing her needs and feelings. She attended a social anxiety group where she worked to develop skills in these areas. Thus, I was intrigued when she told me she conversed with the trees outside her apartment. Her personification of them seemed to allow the processing, via metaphor, of some of her own emotions:

I sometimes think, especially on winter days when the trees are snow covered and the branches are lower, it looks like they are sad. So I wonder 'what's on your heart'? And 'what's on your mind now'? Or I say 'you know, today was heavy but tomorrow will be better'. And the snow falls off and the branches are up again.

Alexandra also noticed a shift in her experience of self when in nature. At times, the assaults left her feeling as though her body parts were fragmented and disconnected. However, feeling the sunshine or going out in the snow reconnected them again:

After certain things happened [referring to the assaults] I felt like my head was separating from my body. It's probably weird. But when I feel the sun or when I'm walking through the snow, or running through the snow, it gets connected again.

In addition to these physical changes Alexandra felt she could be herself in nature. She stated this is where she could just "be."

As the interview progressed it became apparent that nature shifted Alexandra's attention away from the assault and its related difficulties. In doing so, it allowed her to focus on other experiences. For example, she often felt like her body parts were disconnected. Similarly, she occasionally lost sensation below the neck. Alexandra described these experiences as "weird" side effects of assault. However, when she "paid attention" to nature, she paid less attention to these uncomfortable side effects:

If I'm in the snow, I pay attention to the steps, the lakes, and the movement. When I'm not [in nature] my body feels like a bubble and my head is something that is above it.

As we approached the end of our interview, Alexandra seemed less guarded. Her legs opened slightly and she moved around more in her chair. At this juncture, our conversation flowed easily as we exchanged book titles and

research interests. She informed me that participating in the study had been a positive experience and had given her things to think about further. I felt a deep respect for her journey to overcome the challenges brought on by sexual assault.

**Patti.**

Peace is probably the best word to describe what nature has brought me.

Patti, May 2011

During initial contact through email, Patti disclosed that her home was an important place of healing. Thus, rather than meeting at the University of Alberta Education Clinical Services, we opted to meet at her home instead. The morning of May 17<sup>th</sup> was blustery, albeit reasonably warm and sunny, as I drove out of the city to interview Patti. I felt glad to get away from the pace of life in a big city for a few hours. As I pulled up to the modest-split level, which also happened to be on a farm, I was very much looking forward to spending some time there.

When I arrived, both Patti and Poppy (a large mixed-breed dog) gave me a warm welcome at the door. Patti was dressed casually in blue jeans, a belt, and a black t-shirt. She was in her mid-40s, had blond hair, and a slight country drawl to some of her words. She smiled frequently and exuded a relaxed approach to life. As I removed my shoes I could hear country music playing in the background and could smell the wood smoke from the fireplace before I could see it.

Patti offered to give me a tour of the home she had owned for several years. I learned where the cat slept on the bed, where the horses went out to pasture, and saw the view of the barn and paddock from the kitchen window which Patti enjoyed daily. She seemed proud to share both her stories and her space with me. We conversed over tea and the muffins she had graciously purchased for my visit.

We retired to her living room to enjoy the fire and continue our conversation. Patti explained she lived in the city until 10 years of age. However, she emphasized that during these years she played outside frequently. Then her family purchased a considerable amount of land outside the city where they established a farm. It was here she would live for the remainder of her childhood and teenage years.

This rural lifestyle influenced Patti's occupational choices. Through high school and university she worked at a kids camp, as well as working with animals. For approximately five years after finishing university she continued in this line of work. She then described transitioning to a different type of helping profession where she has remained for nearly 20 years.

During childhood, Patti was sexually assaulted by her brother. This violation left her feeling out of control. However, she explained that nature assisted in restoring feelings of control:

I: What was it about nature you found most healing or beneficial?

P: The peacefulness and the sense of control; the sense of control because when there is repeated abuse, you lack that. You lack any sense of control. And with this being my own farm and I'm not married, I'm the one who calls the shots here. So there certainly is a sense of control that was lacking for a number of years in my life that has now been fulfilled.

Patti also experienced an increased sense of peace or calmness through nature:

I: Could you tell me a little bit more about what your thoughts and feelings were like when you were experiencing the healing properties of nature, however you would define those?

P: With nature it's absolute peace. It's peace-filled. It's a peaceful place within me as well as outside.

In a similar vein, without this peace Patti believed anger would be more predominant in her life. She stated, "I would be angrier and more embittered." She also explained that when she is at peace she has "much less room for being angry."

Patti described feeling unsafe growing up in her home. For example, she did not feel able to disclose the abuse to other family members or show them her emotions. However, nature was her haven:

I did disclose to my family years later when I was about thirty. So at the time [of the abuse] I didn't feel safe to go anywhere at home and cry or disclose anything. So for me nature was the key to get away; to be in my own place and space.

After disclosing Patti felt supported by her older sister. However, her parents responded with "disbelief and denial." This resulted in "issues" between family members which Patti described as needing to be worked through together. Since many family members had an appreciation for nature, it became a forum where they could spend time and slowly heal. For example, they would meet for outdoor barbeques and to fly kites. Moreover, they would engage in unique activities. For example, the family tried eating a gopher Patti's nephews caught in



the field by her home. When reflecting back on the experience with the gopher she laughed and said “I couldn’t swallow it but everyone else thought this was just the greatest thing...even my grandmother tried a piece.” Thus, nature was a place where the family could have fun together and focus less on the assault and focus more on their strengths. Patti stated, “My family is still the only one I have. I can pick other people as pseudo-family but this is the blood and guts of it.”

Patti described the high value she places on assisting those in need. Not only does she work in a helping profession, but she has also taken several volunteer trips abroad. She emphasized that because she feels blessed she wants to bless others. Similarly, nature provided Patti with the sense of being “blessed” by “God.” She conceptualized and framed her farm in this way and thus saw it as a place to be shared with others recovering from abuse or any life challenge. Sharing in this way seemed to further Patti’s own healing as well:

It’s nice to be able to share [nature]. Although it sounds trite, I believe God blesses us so we can bless others. And I have all this [gesturing to her property] so I can’t help but share it.

Patti alluded it was a struggle to accept the assault had occurred. However, nature made acceptance easier. For instance, she described it as a place where she could “deal” with the assault rather than “masking it, covering it up, or burying it.” The following statement also suggested Patti’s sense of self-acceptance was supported by nature: “What is important for healing is being okay with *me*; and being okay with me usually happens outside.”

Not only did nature help Patti come to terms with the assault and find self-acceptance, she also described it as a place where she could freely be herself while healing:

P: It's my responsibility to build a happy life and a happy me.

I: What do you think helps you do that?

P: Absolutely my connection with the outdoors and nature. When I am there, I am able to just be free, and be me, and enjoy that.

She also described nature as a "huge" factor in helping her "feel what she needed to feel" and "think what she needed to think," even when those thoughts and feelings were "not good."

During our conversation it became apparent Patti felt a kinship with nature. This kinship enhanced her ability to focus on experiences in the here-and-now, rather than ruminating over past events such as the assault. When I asked if any sensations seemed particularly important, Patti responded:

Definitely the sensation of being in tune and being in touch with exactly where I'm at with my surroundings. Not being disjointed from it, but being really attuned to where I am and what I'm doing.

Lastly, Patti commented on the importance of the solitude nature provided. She explained, "For healing, I don't always want to be surrounded by people. I still need my own time and space." For Patti, this time and space was synonymous with nature.

**Isabelle.**

My tree, my spirit guide, makes me feel safe.

Isabelle, June 2011

Twelve minutes prior to our scheduled interview I received an anxious message on my cell phone from Isabelle. She was having difficulty locating the University of Alberta Education Clinical Services. However, she assured me she was on route. Approximately 20 minutes later Isabelle arrived out of breath. We shook hands and I thanked her for coming. She was dressed casually in a t-shirt and athletic pants. She was also wearing many unique pieces of jewellery, most notably several different rings, as well as an intricate beaded bracelet she explained was made by a tribe in Mexico. I also observed her clutching two large whitish-clear crystals; I would later find out one of these crystals helped ground her when feeling depressed or in anxiety-provoking situations.

After a brief discussion about interview and research procedures, Isabelle informed me she is not done “healing.” Instead, she described nature as helping her “cope” with the ramifications of sexual assault.

As our conversation progressed I learned Isabelle was in her late 30s and had grown up in British Columbia. Her husband’s employment was what led her to settle in an urban centre in the Prairies. She spoke fondly of her husband, describing him as her “best friend.” Similarly, when she spoke of her teenage step son and young step-daughter, Isabelle broke into a smile. Thus, she appeared happy in her family life.

Isabelle began to cry as she recounted the sexual assault at the hands of her father from “the time she could remember until age 10.” She explained that her brother, a friend, and the family dog were also assaulted. Isabelle “blocked out” any memories of the assault until age 13 or 14, at which point she disclosed the transgressions to her mother. As a result, her father was brought to trial. However, due to a lack of evidence substantiating the assaults, he was not sentenced to prison. Rather, he was mandated to attend 12 weeks of counselling. Isabelle felt anger and disappointment following the court’s ruling.

Around age 16 or 17, Isabelle left home and began working as a prostitute. Leaving home also meant leaving her Jehovah’s Witness faith and a community she considered extended family. However, despite this loss, she felt a continued connection with a “spirit guide.” This spirit guide was rooted in nature and was instrumental in helping Isabelle cope with the stress and painful memories of the assault. Years later, while attending a two-week intensive therapy program at a retreat centre in the United States, she deepened her connection with, and understanding of, her spirit guide:

Throughout my life, I always felt some sort of spirit guiding me. The therapy at the centre in nature helped me explore that. While there, I realized my [spirit guide] was a big, old oak tree. Whenever I’m feeling stressed or something like that, I just imagine it behind me, wrapping its branches around me.

Although Isabelle’s experience at the retreat centre deepened her connection with the healing power of trees, the connection itself originated much earlier.

Isabelle's mother told her that even before she could speak, she would "garble" to the trees. Furthermore, as a teenager in the aftermath of her father's trial, Isabelle engaged in what may be best described as prayer sessions beneath the boughs of a specific tree in her hometown:

Shortly after I'd gone to the police with the knowledge about my dad, I began visiting a tree in the town where I grew up. I used to go to that tree and just talk to it. I'd ask for help moving on with my life and for strength.

Not only did this tree provide a connection to the spiritual, it also increased Isabelle's sense of calmness and well-being. In Isabelle's words, it was a source of comfort in the wake of the assault:

There was a bench right beneath it [the tree] where I'd sit and just listen. The leaves sort of came down around me like a weeping willow. It comforted me then and still does.

Moreover, trees also provided Isabelle with a sense of safety. For example, she stated, "my tree, my spirit guide, makes me feel safe." Similarly, the following interview excerpt suggested she was able to feel safe with nature in ways she was not able to with people:

P: I felt unsafe growing up. I didn't feel loved, I just felt betrayed. The experiences in nature have changed that and made me realize I don't always have to feel that way. I can feel happy and safe. And it's okay to feel safe.

I: So that's something you get from nature?

P: Definitely, yeah.

In addition to bolstering feelings of safety, nature reduced Isabelle's level of anger:

Before the retreat centre I was pretty angry all the time and it wasn't as bad when I came back. So I'd say I need nature in my life; it's not just a want. It's very important.

Next, Isabelle perceived nature as a non-judgmental witness to her story. This was paramount for healing since she did not feel people, including therapists, were always able to provide this type of support. The following excerpt from our interview exemplified this point:

I: What does nature offer you that's different?

P: I don't feel any judgment from nature. And as much as a person doesn't want to judge as they hear things, that's human nature.

Shortly thereafter, Isabelle added that she also feels non-judgmental support from her cat.

Isabelle identified the "feeling of wind" on her body as one of the most healing elements of nature. Although she did not seem able to articulate exactly *how* the feeling of wind on her body was healing, she stated it was healing nonetheless.

At one point, Isabelle shared that after being at the retreat centre, nature itself seemed "brighter." She explained, "It's brighter in the sense that I can feel more relief from it. It makes me feel more like me." In other words, nature seemed brighter since it helped Isabelle feel more like her self.

As our conversation progressed, Isabelle shared her struggle to accept the assault and its impact on her life:

I think my life would have gone so differently if it hadn't happened. A lot of my dreams would have come to fruition way before now because the thing that has always held me back was the abuse. I look at all my different relationships with men and women, and why I am the way I am, and a lot of the negativity in those areas had to do with it [the abuse].

However, she experienced a "freedom" from such feelings in nature, and as demonstrated by the interview excerpt below, this is where she found self-acceptance:

I: Do you remember anything about the thoughts and feelings you experienced when you were healing in nature?

P: A feeling of freedom. The feeling that it's okay to be who I am and the way I am.

I felt it may be important to discuss the significance of the two crystals Isabelle had brought to the interview. Therefore, I asked what they meant to her. Isabelle explained they were an element of nature she considered healing. Although she did not yet know the meaning of the second crystal, which was a relatively recent gift from her husband, she articulated how the first crystal helped her heal from sexual assault:

There have been different points when I take it with me if I'm feeling down or something. I've held on to it a lot. Just thinking about it and

holding it in my hand gives me something to take away from my negative thoughts.

Isabelle found the sensory stimulation nature provided, such as feeling the wind on her body and clutching a crystal in her hand, was healing. In contrast, she found man-made methods of sensory stimulation, such as noise and light pollution, detrimental to healing. Hence, according to Isabelle, nature healed by providing positive sensory stimulation and by reducing exposure to negative sensory stimulation:

We're so overwhelmed with technology, sound pollution, and light pollution, and there's none of that out there [in nature]. There's nothing contaminating my spirit...

Furthermore, she explained:

I don't think a person can properly heal living around so much technology. You need the green grass and the trees around you.



**Anne.**

We tend to grasp on to the things that have happened to us...But when you sit out in nature you realize that none of it matters...I realized how insignificant that experience [the assault] was in the grand scheme of my life, and in the grand scheme of the universe-it was one moment...It's so rewarding to be able to say, 'I can let that go. I don't have to hold on to it or punish myself any longer.' It's so amazing. So liberating.

Anne, April 2012

It was a rainy and overcast April day as I drove out to an Edmonton suburb. I was scheduled to meet Anne, a woman in her late twenties, who lived in a basement apartment. When she opened the door, Anne was wearing a purple sweater, a black and white t-shirt, and leggings. Her face was without make-up. She had brown hair and large eyes that were blue/grey in colour. Our conversation flowed easily and I quickly learned about her commitment to a green lifestyle. Anne explained she ate a mainly vegan diet and was trying to reduce her footprint on our planet. I also learned she was an avid yoga practitioner and teacher, and that she considered yoga a lifestyle rather than something to be practiced solely in a class.

I felt comfortable with the quietness of the apartment and easily settled into Anne's large, cushiony couches. When the topic of family arose, Anne explained she lived with her boyfriend and nine-year-old son from a previous relationship. She described her boyfriend as her "better half" and her mother as her "best friend." Furthermore, Anne shared that she was sexually assaulted at the

age of 15 while attending a “bush party” in rural Alberta. She described meeting a boy there who “forced sex” on her. Afterwards, she felt responsible for the violation:

I woke up the next day and felt like I’d done something wrong. I thought, ‘was I too drunk’? I was not dressed provocatively since I was in the bushes, but I felt like everything I did, I did wrong.

After this initial reaction Anne went into denial. When she did speak about the assault, she did so jokingly. During this time, she coped by spending a significant amount of time “drinking and partying” and “watching TV.” Eventually, however, she acknowledged “the assault had occurred.” To Anne, this acknowledgment was the first step toward healing. She went on to replace TV watching, drinking, and partying with “yoga and spending more time outside.” Having nature as a new coping strategy precipitated feelings of calmness and peacefulness:

I realized how beautiful nature was through yoga. So then I started doing yoga outside and that’s when I found peace...Yoga outside in nature is what I like. That vibe [peacefulness] was attainable there. I started seeing things differently.

Anne was particularly appreciative of the fact that in nature, she was able to release her expectations regarding how she should be supported as a survivor. Moreover, she appreciated nature’s quiet, nondirective support:

When I’m in nature I don’t experience that failure of expectation. I don’t expect nature to give anything back to me, whereas in human-to-human

relationships, there's always that expectation I'm going to *get* something out of it. And when the person fails to meet my expectation, disappointment comes into play. But when I'm in nature I don't have that. There is no sense of failed expectation; it's just removing that emotion entirely from the scenario which allows me to get so much more out of it. For example, have you ever asked somebody a question and they don't respond right away? And it's their silence that gives you clarity? It's the same idea here. It's as if I'm asking the world a question, and it gives me nothing in return, and it's from that nothing I achieve clarity.

Similarly, this non-judgmental relationship permitted Anne to be herself during the healing process:

When hugging a tree I know there is no expectation of a response [either from nature or from the self] so I get to step back and really enjoy it; knowing that I don't have to be someone I'm not, or be someone I'm expected to be. And for that reason it's totally healing.

Moreover, Anne explained being sexually assaulted made her feel both physically and metaphorically "small." In contrast, nature helped her feel "bigger." She described a positive experience of the body in her sense of physical growth:

When I reach the stage of being fully present in nature I feel like I've grown substantially in the physical sense... Physically, I feel like I'm so much bigger. It's really a cool feeling.

During our conversation, Anne described a process of metaphorical growth made possible by increasing self-acceptance. This process occurred while outside on a “massive” hill that permitted her to see for “miles and miles.” Anne played on this hill throughout childhood and, as an adult, found it to be a place of reflection:

P: I think the biggest thing is recognizing the past and sitting with it. [In nature] I *really* just sit with it and let the emotions cross over me like a wave. There’s this connection that happens when I’m in nature that allows me to find acceptance. Suddenly it’s not about my perception of what happened in the past, it’s about where I am now. And if I was really in the present, I’d be in *this* present; and this present is about what’s all around me. And what’s around me has nothing to do with what’s happened to me in the past...

I: Would you say I’m interpreting your experience correctly by saying that being in nature facilitated that letting go?

P: For sure. Absolutely. It’s one of the fundamental ways that I’ve learned to deal with acceptance of my past and what happened.

Anne also shared that nature directed her attention away from the assault and its related difficulties. When in nature she described “tuning out” the negativity associated with the assault, and tuning into her current surroundings and experiences:

There is a point during my experience in nature where everything is turned off and the only thing that’s turned on is my perception of what’s coming in.

Not what's going out; not the judgment, not the expectation. It's this whole idea of being exactly in that moment and feeling the wind on my skin and hearing the crickets.

For Anne, healing in relationship with nature translated to healing in relationship with the larger cosmos as well. This enabled her to achieve a sense of transcending human limitations, including her sense of "smallness" imposed by the assault. In other words, there was a spiritual dimension to her healing process:

When I reach that stage of being fully present in nature I feel like I've grown substantially. I literally feel like I'm not this speck of nothing in the universe. Essentially that's what we humans are; we're just a speck, a moment. But the universe has grown over billions of years, so to feel like I'm bigger than just that speck is a pretty phenomenal feeling.

When our interview concluded, I stepped out onto Anne's front step to see the rain had subsided. The sun was shining and I took a moment to appreciate the day and all I had learned from Anne.

## **Thematic Analysis**

In this section of the findings, I discuss the themes pertinent to healing that emerged in the majority of participants' stories. These themes included (a) providing emotional support, (b) connecting with spirituality, (c) changing the experience of self, and (d) refocusing attention. Table 1 provides a visual summary of main themes as well as subthemes.

*Table 1*

### *Thematic Summary of Healing Through Nature*

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#### **Providing emotional support**

1. Reducing anger
2. Increasing calmness
3. Establishing a sense of safety

#### **Connecting with spirituality**

#### **Changing the experience of self**

1. Strengthening a positive relationship with the body
2. Being or creating the authentic self
3. Increasing self-acceptance

#### **Refocusing attention**

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**Providing emotional support.** A major theme throughout all participants' stories was how nature provided emotional support during the healing process. Reducing anger, increasing calmness, and establishing a sense of safety were the most frequently mentioned methods through which nature provided emotional support to participants. Moreover, participants used words such as "peaceful," "happy," "relaxed," and "well-being" to describe their emotional states in nature. These emotions were in stark contrast to those they associated with sexual assault, such as "unloved," "betrayed," "fearful," "isolated" and "anxious."

**Reducing anger.** Three participants reported appreciating nature's ability to reduce anger when appropriate or desired. For example, when asked what differences she saw in herself due to nature Patti responded, "My personality is pretty easy-going, but I wonder how much angrier I would be. I think anger would be a bigger component of my life if I didn't have that outlet and that release." Similarly, when asked what she had taken away from her healing experiences in nature, Isabelle responded, "I have less anger." Alexandra articulated that participating in sports (i.e., swimming) was a helpful release for anger. However, it was not sufficient enough. What she found most beneficial was punching the water.

**Increasing Calmness.** All participants stated that nature created a sense of peacefulness, relaxation, or well-being. These and other similar terms are subsumed by, and reflected in, this subtheme. Increasing calmness was important to healing because it afforded participants emotional reprieve. For example, Patti stated, "Are the troubles still there? Yes, but the overriding factor is the peace."

Similarly, Alexandra noted “I can relax at the sunny beach and I don’t have all the emotions going out. I can just be relaxed.”

Moreover, Anne felt anxious being alone after the assault. In the years that followed, she described needing to be with other people at all times. However, because of the peace her hill provided, she was able to spend time alone there without this anxiety: “It really is lovely; there is nothing but the air, the occasional bird, your footprints, and your thoughts. So combined it makes for a really peaceful experience.”

In addition, increasing calmness bolstered Isabelle’s capacity to “deal” or cope with the assault. She described an increased “feeling of well-being” in nature which facilitated a shift from “not being able to deal with it” to “finding a new way of dealing with it.”

*Establishing a Sense of Safety.* Three women identified how being in nature helped them feel safe after being sexually assaulted. The importance of feeling safe, and nature’s ability to cultivate this feeling, was elucidated by Isabelle in the following interview excerpt:

P: I felt unsafe growing up. I didn’t feel loved, I just felt betrayed. The nature experiences have changed that and made me realize I don’t always have to feel that way; I can feel happy and safe. And that it’s okay to feel safe.

I: So that’s something you get from nature?

P: Definitely, yeah.



In a similar vein, Patti recalled how when she felt unsafe at home as a child, she would escape to the pastureland to be with the cattle:

In the farm environment growing up my dad had a bull named Johnny. On numerous occasions, I'd go out to pasture and wrap my arms around Johnny. I'd just sit or stand out there for hours. It was the same thing with the cattle. They're very curious, so I'd sit in the middle of the field and before long they'd all come and just *surround* me. And I'd sit or lie on my back and look at the clouds. It was a safe and peace-filled place to be.

In addition, Alexandra felt paralyzed by fear or fled from situations she believed other individuals, who had not been assaulted, may have assessed as nonthreatening. For example, she disliked when dishevelled individuals boarded the bus she was riding. Thus, she described living in a nearly constant state of hyper-vigilance. The following statement demonstrates the impact such feelings of fear had on her:

I don't know if it's an exaggeration of my own thing [response to the assault] because I haven't noticed anyone else on the bus doing that [avoiding other passengers]. So I am always questioning, 'why am I doing this? Why can't I be normal?'

In contrast to these feelings of fear, Alexandra established a sense of safety in nature:

It's probably strange but my thoughts were not 'something's going to happen. I was able to be relaxed and enjoy the moment.

Interestingly, the current locations in nature where women felt safe tended to bear some resemblance or connection to a safe place from childhood. For instance, Alexandra explained that during adolescence she felt safe running outside in the snow. This is an activity Alexandra still uses today to cope with the assault. Similarly, when Patti needed a safe place growing up, she would spend time with the animals outdoors on her family's farm. Today, Patti owns her own farm. She described this current farm as her most important place of healing in adulthood. In addition, even before she was old enough to speak, Isabelle was described as having an affinity for trees. After the assault, as a young teenager she would sit beneath a tree in her hometown; she would talk to this tree, asking for strength and help moving on with her life. Then, while at a retreat centre in adulthood, she discovered her spirit guide was an old oak tree. Isabelle explained she felt safe when envisioning this tree wrapping its branches around her. Thus, the present study suggests some consistency of safe place in nature across time.

Finally, participants emphasized not all sites in nature would feel safe for all women. In other words, "a one size fits all" approach to establishing safety was not recommended. Rather, it was important for each individual to decide for herself where she would heal. For instance, Alexandra became distressed when her therapy group was led through a guided-meditation, the focus of which was a forest environment. Although this imagery was supposed to be relaxing the opposite was true; this location did not feel safe for her. In contrast, Isabelle felt a strong affiliation for trees and could establish safety among them. But she felt vulnerable on the flat, open prairies. Therefore, nature was not necessarily

inherently safe for women. Instead, participants underscored the importance of deciding for themselves which places were safe and which places were not.

**Connecting with spirituality.** Nature was a means of connecting participants with their spirituality. Although spirituality took different forms and meant different things to the women, all three participants who contributed to this theme indicated accessing it was important for healing. Firstly, in the following interview excerpt, Isabelle described a “ritual” involving nature:

I: Can you tell me more about what you found so powerful regarding the experiences with nature at the retreat centre? Can you walk me through some of those experiences?

P: They [retreat centre staff] had me go outside and do a meditation; I was to lie down [on the ground] and think about all the people in my life that love me [starts crying], and see them looking down on me as if I were dead. Would they want that? I was asked to bring three things from childhood that meant something to me. I brought a poetry book of my dad’s that was his mother’s, and I read some poems that symbolized how our relationship was. I spoke them into the wind. They’d [retreat centre staff] given me flowers to leave on the ground afterwards to say goodbye.

Isabelle’s description suggested this experience brought significant existential and spiritually-relevant questions to the forefront. In response, she seemed to surrender her relationship with her father, and his assault of her, to the wind and grave.

Secondly, Isabelle believed a “spirit guide” supported her in healing. This spirit guide took the shape of an old oak tree:

Throughout my life, I always felt some sort of spirit guiding me. The therapy at the centre in nature helped me explore that. While there, I realized my [spirit guide] was a big, old oak tree. Whenever I’m feeling stressed or something like that, I just imagine it behind me, wrapping its branches around me.

Thirdly, Isabelle described asking nature for strength and help moving on with her life. More specifically, she conversed with a particular tree in the town where she grew up. These conversations were akin to prayers:

Shortly after I’d gone to the police with the knowledge about my dad, I began visiting a tree in the town where I grew up. I used to go to that tree and just talk to it. I’d ask for help moving on with my life and for strength.

In addition to Isabelle, Patti found a healing spiritual connection through nature. This connection manifested through spending time outside on her farm. Doing so led to the feeling of being “blessed” by “God.” In turn, Patti explained that sharing this blessing with others who may be suffering also encouraged healing.

For Anne, being sexually assaulted made her feel physically and metaphorically “small.” In contrast, healing in nature made her feel as though the infinite universe was part of her. Given this intimate connection between her and all life, she felt larger, more eternal, and less alone:

When I reach that stage of being fully present in nature I feel like I've grown substantially. I literally feel like I'm not this speck of nothing in the universe. Essentially that's what we humans are; we're just a speck, a moment. But the universe has grown over billions of years, so to feel like I'm bigger than just that speck is a pretty phenomenal feeling.

**Changing the experience of self.** All participants noted positive changes in how they experienced themselves. These changes were physical, perceptual, and/or behavioural. More specifically, participants reported: strengthening a positive relationship with their bodies, being or creating their authentic selves, and increasing self-acceptance. These subthemes are explicated below. In addition, it should also be noted that all participants emphasized healing was an incomplete, life-long process.

*Strengthening a positive relationship with the body.* In contrast to the negative experience of the body during sexual assault, this subtheme describes how nature facilitated positive experiences with the body. These experiences were different for each of the three participants contributing to this subtheme. For Alexandra, strengthening a positive relationship with the body meant two things. Firstly, it meant being able to “connect” parts of her body into a more cohesive whole. For example, after being assaulted Alexandra felt as though her body parts were fragmented and disconnected from each another. However, the following interview segment suggests they reconnected again in nature:

I: So is there anything specific about these experiences [in nature] that stick out for you as being particularly important?

P: I think it's important to be able to connect all the parts of my body.

Similarly, nature helped Alexandra connect her head with her body:

This might sound really weird, but I feel like there's a little me inside only my head, and then there's nothing underneath my neck. But I'm starting to connect that little person in my head with my body, which makes it into a bigger person.

Secondly, being in the sunshine permitted Alexandra to relax her body and move more freely. This was important since she often experienced her body as rigid and unmoving:

There are many times at home I sleep like a board, like this [participant makes rigid body posture with arms and legs unbending]. I don't even allow myself to bend a knee. But I have really big windows in my apartment, and when the sun is shining, I like to put mats on the floor and just lay in the sun. I move like cats move with the sun. That's when I see the trees as well and I love it.

Thirdly, Isabelle recalled the feeling of wind on her body as being one of the most healing aspects of nature. The following interview excerpt demonstrates her appreciation of this sensation:

I: Can you tell me what it was about nature you found the most beneficial or the most healing?

P: I've always had an affinity for the wind and the trees. So the feeling of the wind on my body has always been something I like.

Similarly, she described how the sensation of wind on her body, combined with “the sun being out,” led her to feel “on top of the world.” Fourthly, Anne described nature as making her feel “so free, alive, big and massive.” She further emphasized that when in nature “physically she felt *huge*.”

***Being or creating the authentic self.*** This subtheme describes how all survivors were able to feel and behave like themselves in nature. Thus, whatever they needed to express during the healing process, and however they needed to behave, they felt able to do so. For example, Patti stated “through my connection with the outdoors and nature, I’m able to just be free, and be me, and enjoy that.” Isabelle made a similar point: “it [nature] makes me feel more like me.” Moreover, Anne appreciated “knowing that I don’t have to be someone I’m not, or be someone I’m expected to be. And for that reason it’s totally healing.” Finally, Alexandra succinctly summarized this theme when she stated “[In nature] I can just be.”

***Increasing self-acceptance.*** The increasing self-acceptance subtheme represents two concepts. Firstly, while the being or creating the authentic self subtheme above describes participants’ increased ability to *be* themselves, this subtheme describes how nature assisted them in coming to *accept* who that self is. This process can be difficult for survivors since they may feel temporarily or permanently altered by the assault. However, nature appeared to help them cope with these changes. For example, when asked what she remembered about healing in nature, Isabelle stated “[knowing it is] okay to be the way I am.” Moreover, Anne’s process of finding self-acceptance in nature is detailed below:

I don't think there's any other place I could have found it. A lot of people find it in religion and in church. They find it in drinking; whatever works for them. For me it [nature] isn't providing a bandaid fix. It's an actual acceptance. It's tearing the bandaid off and flicking it aside and being like, 'I have wounds and I'm going to wear them openly and proudly and let that be who I am. Everything that's happened in my past has shaped me to be who I am today. And if I can love myself today, then I have to love *all* of myself, even the ugly, disgusting, hideous parts'.

Furthermore, Patti believed gaining self-acceptance was an important part of her healing: "What is important for healing is being okay with me; and being okay with me usually happens outside."

Secondly, in addition to increasing acceptance of the self, nature was a catalyst for achieving acceptance of the assault. The following quotation from Patti provides substantiation for this observation:

I think things that happen to us [the assault] shape us into the people we are, if we have a positive mindset and choose to overcome. That's my perspective on it and the nature component has certainly been huge for that.

Moreover, Anne described a similar outcome in our conversation below:

P: I think the biggest thing is recognizing the past and sitting with it. [In nature] I *really* just sit with it and let the emotions cross over me like a wave. There's this connection that happens when I'm in nature that allows



me to find acceptance. Suddenly it's not about my perception of what happened in the past, it's about where I am now...

I: Would you say I'm interpreting your experience correctly by saying that being in nature facilitated that letting go?

P: For sure. Absolutely. It's one of the fundamental ways that I've learned to deal with acceptance of my past and what happened.

**Refocusing attention.** All participants noted nature helped reduce their focus on the assault and its related difficulties. In other words, it allowed them to direct their time and attention elsewhere. For Anne, this refocusing involved an increased awareness of her natural surroundings: "There's something absolutely phenomenal that happens in nature when I can turn off my thoughts and be with what's going on around me. It's this whole idea of being mindful or being fully present." Similarly, immersion in (and awareness of) nature shifted her perspective from believing the assault was a dominant part of her life, to believing it was of lesser significance:

Have you ever traveled to the ocean and gone snorkeling? You're under water and looking at an entirely different existence that has nothing to do with you. It really doesn't give a shit [about your problems]; it doesn't give a shit about what your story is, or what your past is. And that's the wonderful thing about nature. You realize 'none of my shit matters'. And suddenly it's like - well - should *I* care that much about it then? Like really, should I?

Alexandra explained that when in nature, she paid attention to her experiences and surroundings. In drawing her attention outward, she was less focused on some of the unpleasant sensations she lived with since being assaulted: “If I’m out in the snow, I pay attention to the steps, the lakes, and the movement. When I’m not [in nature] my body feels like a bubble and my head is above it.”

For Isabelle, focusing attention on her crystal distracted her from thinking negative thoughts about the assault: “I’ve held on to it a lot. Just thinking about it and holding it in my hand gives me something to take away from my negative thoughts.”

Lastly, Patti conceptualized the wind as blowing her troubles away. In doing so, she was able to set aside the burden of the assault for awhile and focus on other things:

It’s windy out here you know. I try and think of the wind as symbolically blowing all the troubles away; they’re still *there* waiting for me tomorrow, but its how I deal with it and what I do with it.

### Chapter Five: Discussion

The purpose of this narrative study was to learn how nature helped women heal from sexual assault. Four main themes resulted from analysis: providing emotional support, connecting to spirituality, changing the experience of self and refocusing attention. Firstly, nature provided emotional support by reducing anger, increasing calmness, and establishing a sense of safety. Secondly, nature facilitated a connection to spirituality. Although this process took a different form for each of the participants, the underlying need to connect with a Higher Power greater than the self was commonly indicated. Thirdly, nature changed the experience of the self. This manifested through strengthening a positive relationship with the body, being or creating the authentic self, and increasing self-acceptance. Fourthly, nature helped participants refocus their attention on experiences aside from the assault.

The findings from this study are congruent with the literature suggesting sexual assault is one of the most emotionally evocative forms of trauma (Amstadter & Vernon, 2008; Frazier et al., 2009; Kaysen, Morris, Rizvi, & Resick, 2005). Although emotions serve important functions, there are many instances when we need to exercise control over them (Gross, 1998). Given sexual assault can trigger a myriad of negative emotion experiences, the need for emotion regulation may be amplified. Prior to further discussion on emotion regulation, this term should be defined. Thus, *emotion regulation* refers to:

the processes by which individuals influence which emotions they have, when they have them, and how they experience and express these

emotions. Emotion regulatory processes may be automatic or controlled, conscious or unconscious, and may have their effects at one or more points in the emotion generative process (Gross, 1998, p. 275).

In applying the above definition to this study, nature appeared to facilitate emotion regulation. For example, it influenced which emotions participants experienced since it induced states of calmness and safety. Similarly, nature afforded greater control over when and how participants experienced and expressed certain emotions, such as anger. Participants' stories also suggested that the process of emotional regulation was sometimes automatic (e.g., when the sun caused relaxation) and sometimes intentional (e.g., the active seeking out of nature when feeling unsafe). Furthermore, these changes were felt at one or more points during the process of healing.

In addition to the above definition, Gross (1998) suggested that both positive and negative emotions can be regulated. This point is supported by the present study since reductions in anger, as well as increases in calmness and sense of safety, were described. The findings regarding increased calmness and sense of safety are particularly noteworthy since it has been suggested that ways of increasing positive emotions have not been widely discussed in the coping literature (Gross). Moreover, emotion regulation may or may not come at a cost to an individual's resources (Gross). In the present study, nature seemed an agent of emotion regulation that did not appear to tax individuals' resources to a great degree. For example, participants described several experiences with nature that had no associated financial cost and required minimal investment of time.

This potential connection between nature and emotion regulation is significant since sexual assault has been known to negatively impact the ability to regulate emotion (Cole & Putnam, 1992). Furthermore, emotion dysregulation may be a precursor for revictimization. For example, using a prospective study design, Messman-Moore, Ward, and Zurubavel (2013) examined whether or not emotion dysregulation was an antecedent for incapacitated or alcohol-involved sexual assault (ISA) revictimization in college women. They found that “even very small increases in emotion dysregulation...impacted revictimization risk substantially” (p. 125). Therefore, given that nature seemed to assist with emotion regulation in the present study, it may also have a role to play in reducing risk of sexual assault in future.

In the 1990’s, Gross (1998) noted that researchers remained focused on how behaviour or mental influence could be used to reduce negative emotion events. However, in addition to the influence of behaviour and cognition on emotion, a more current zeitgeist suggests that environment may also play a role. For instance, Faucher and Tappolet (2008) provided an interesting discussion of emotion regulation within several different settings, including the socio-cultural environment. In addition, they posed the question “what part do...the elements of our natural environment that are not socio-cultural play?” (p. 101). The present study suggests nature may reduce negative emotion experiences and thus may contribute to answering this question.

Similarly, nature may be conceptualized as a coping mechanism. Coping is frequently described as being either problem-focused (Folkman, 1997) or

emotion-focused (Gross, 1998). Problem-focused coping involves conflict-resolution, information-gathering, and decision-making. In other words, it is goal-oriented and strives to solve the problem (Folkman). In comparison, emotion-focused coping serves to reduce negative emotion events (Gross). Based on the stories participants shared in the present study, sexual assault did not seem to be a “problem” that could be “solved.” Therefore, problem-focused coping strategies were largely absent from participants’ narratives. However, nature was described as decreasing negative emotion experiences resulting from the assault and therefore could be considered an emotion-focused coping strategy.

One negative emotion that nature decreased was anger. Anger was referred to as “challenging” for recovery. The literature suggests managing anger is also a common struggle for female survivors in general (Amstadter & Vernon, 2008). While a necessary and healthy part of grieving (Kubler-Ross, 1969) anger can be problematic due to its relationship with poor mental and physical health (Connor, Davidson, Lee, 2003; Feeny, Zoellner, & Foa, 2000). Moreover, not unlike dissociation, it may prevent contacting and processing a traumatic event such as sexual assault, subsequently interfering with recovery (Feeny, Zoellner, & Foa). Hence, participants appreciated nature’s ability to moderate the experience of anger.

Although relatively little is known about nature’s influence on emotion, an intuitive inquiry (Anderson, 2004) by Dufrechou (2004) may provide some explanation for the present findings. In his study, Dufrechou collected written stories from 40 individuals who had experienced what he termed “deep emotions”

in nature, including his own experience. In his personal story, Dufrechou described listening to the early morning rain which subsequently resulted in his weeping. In turn, this weeping led to a new sense of wholeness. Instead of weeping, women in the present study described processing and releasing anger in response to nature. Like Dufrechou's conceptualization of "wholeness," women found the process of releasing anger to be healing. To my knowledge, no other study has demonstrated that nature may help reduce anger in female survivors of sexual assault.

Since nature experiences were also defined by significant feelings of calmness, this suggests a similarity between them and what Maslow (1971) termed *plateau experiences*. Because Maslow conceptualized plateau experiences shortly before his death, he was unable to completely flesh out his ideas about them, and thus they have been described as his unfinished theory (Cleary & Shapiro, 1995). Therefore, plateau experiences are frequently discussed in relation to his more established theory of peak experiences. In his seminal book, *Toward a Psychology of Being*, Maslow (1962) fleshed out the nature of peak experiences in considerable detail. He explained they are defined in part by "highest happiness or fulfillment" (p. 69), "awe, wonder, amazement...exultation and piety" (p. 76), increased sense of connection with all life, and the ability to see intrinsic value in natural phenomena.

Plateau experiences are similar to peak experiences, but generally speaking, peak experiences tend to be intense and short-lived while plateau experiences are less intense and of longer duration (Davis, 1998; Maslow, 1971).

Plateau experiences are also more strongly characterized by feelings of peace and tranquility (Davis; Maslow; Stamatelos, 1984). In an attempt to embody the essence of the plateau experience, Maslow explained it may be characterized by “a mother sitting quietly looking, by the hour, at her baby playing and marveling, wondering, philosophizing, not quite believing. She can experience this as a very pleasant experience rather than as something akin to a climactic explosion [peak experience] which then ends” (p. 348).

In comparison to peak experiences, significantly less research attention has been given to plateau experiences. However, Maslow associated them with nature. For example, he described mindfully fixing one’s gaze on a small flower as eliciting a plateau experience (Hoffman, 1998). In the present study, women’s descriptions of calmness afforded by nature were not unlike plateau experiences. Given the paucity of research exploring the utility of plateau experiences for psychological healing, the tentative connection between the two forged herein warrants further investigation.

This experience of calmness in nature may result from physiological changes inside the body. For example, in an attempt to scientifically evaluate the therapeutic utility of forest bathing, Lee et al. (2011) gathered physiological and psychological data from 12 individuals participating in a three-day, two-night field experiment. They found forest bathing significantly increased parasympathetic nervous system activity, as well as significantly reducing sympathetic nervous system activity. Furthermore, pulse-rate and saliva cortisol levels were also reduced. Researchers controlled for other variables that may



potentially influence the nervous system such as physical activity, smoking, and alcohol and food consumption.

In addition, through his extensive review of the literature Burns (1998) deduced that stress reduction occurred through in vivo, filmed, and photographic exposure to nature, as well through viewing nature outside of a window. Thus, both Burns and the present study suggest achieving increased calmness and stress reduction may not require in vivo nature exposure. This finding may be particularly useful for survivors who are uncomfortable being outside, or for those who consider going outdoors inconvenient. Furthermore, Burns argued perceived decreases in stress reduction were likely not “limited to the psychological level,” but also “involved the central nervous system and the psychophysiological concomitants of anxiety” (p. 13). If experiences with nature change the central nervous system in such a way that anxiety is reduced, this may explain the experience of increased calmness in the present study.

It is important to note that both the present study and existing literature indicate that survivors have difficulty relaxing. This is evidenced by a propensity for long-term struggles with anxiety in women sexually abused as children (Flett et al., 2012). Furthermore, Gidycz and Koss (1989) found sexually assaulted adolescent females scored higher on the Trait Anxiety Index than those who were not sexually assaulted. High prevalence rates of anxiety-related disorders such as PTSD among survivors (Frazier et al, 2009; Kilcommons, Morrison, Knight, & Lobban, 2008) also suggests a vulnerability to stress-related problems. Therefore,

increasing calmness may be germane to survivor recovery. The healing stories told in this study seemed to underscore the value of relaxation for participants.

In conjunction with reducing anger and increasing calmness, nature helped the participants establish a sense of safety. Given their histories, it is not surprising that they described feeling safe as being an important aspect of recovery. Learning that nature helped establish a sense of safety is important since a lack thereof may lead to substantial upheaval in the survivor's life. For example, Culbertson, Vik, and Kooiman (2001) explained "a disrupted sense of safety can trigger radical lifestyle changes for victims of sexual assault (e.g., moving, changing jobs, screening phone calls, living with family members, and refusing to go to certain locations)" (p. 859). Other studies have also linked sexual assault to difficulty feeling safe. Calhoun, Atkeson, and Resick (1982) conducted a longitudinal investigation of 115 female sexual assault survivors presenting at a hospital in the southern United States. They measured sense of fear at one, two, four, eight, and 12 months post-assault. Results indicated survivors experienced more fear than control participants at all time points.

Furthermore, research suggests that a fractured sense of safety can be a chronic problem. Girelli, Resick, Marhoefer-Dvorak, & Hutter (1986) noted in their review of the literature that while depression and social adjustment difficulties normally resolved within months after sexual assault, fear may remain present for years. Moreover, Culbertson, Vik, & Kooiman (2001) iterated that sexual assault can impact a survivor's ability to feel safe in future. Given that sexual assault may have a considerable and lasting impact on level of fear, the

finding that nature helped women heal by establishing safety is an important contribution to the literature. In additional support of this point, Culbertson, Vik, and Kooiman also argued that perceived safety has not been well-studied, therefore resulting in a paucity of literature. Conversely, fear among sexual assault survivors has been widely studied. Amstader and Vernon (2008) noted that although a range of emotional experiences may result from trauma, fear has received the most research attention. This suggests that we know more about how women are harmed and marginalized by sexual assault than we do about how they heal. Thus, it is important that strength and resilience are further investigated, including how women are able to establish safety.

In the present study, women described nature as a source of spiritual connection and support. Findings suggested this manifestation of spirituality alleviated psychological discomfort and fostered healing. This is germane given sexual assault has been linked to diminished spirituality, and in turn, diminished spirituality has been associated with additional negative consequences. For example, in their study on religiosity and mental health in female survivors of sexual assault, Ben-Ezra et al. (2010) found that sexual assault can leave survivors feeling deserted by God. Similarly, in their qualitative study of 36 emotionally, physically, and/or sexually assaulted women (including those sexually assaulted in both childhood and adulthood), Bowland, Biswas, Kyriakakis, and Edmond (2011) found women were angry at God for their assault. Furthermore, they felt unable to locate God in such horrific experiences (Bowland, Biswas, Kyriakakis, & Edmond). These decreases in, or problems with, spirituality are noteworthy

since they have been associated with difficulty healing. For instance, in a study by Kennedy, Davis, and Taylor (1998) female survivors who reported decreased spirituality also reported significantly lower levels of well-being. Furthermore, they also exhibited increased psychiatric problems (Ben-Ezra et al., 2010).

Other researchers have also found that nature fostered spiritual encounters. In their mixed methods study investigating individuals living or working in forests, Williams and Harvey (2001) established that the esthetic and restorative properties of nature elicited spiritual experiences. These experiences were linked to the physical *environment* specifically rather than to *activities* undertaken in the environment. In addition, through thematic analysis, McDonald, Wearing, and Ponting (2009) identified the wilderness as being a trigger for heightened spirituality among both men and women. Similarly, Keutzer (1978) conducted a large-scale study with college students investigating the experience of being close to a strong, spiritual force. Sixty-five percent of students confirmed having such an experience, and the most frequently mentioned cause was the beauty of nature. Thus, both previous work and the current study suggest that nature may provide a connection to the spiritual. For women in my study, connecting with the spiritual buttressed healing.

Next, nature may provide an alternative means of connecting to the spiritual for women who do not ascribe to any particular religion. In addition, for those who do engage in formalized religious practice, it may provide a new or different means of connecting with their faith. Moreover, it may provide spiritual

access to survivors who face, or are worried about facing, stigma from organized religious bodies. Ben-Ezra et al. (2010) explained:

Secular society tends to be less denouncing toward sexual trauma victims in comparison with more conservative societies that tend to cover up these issues. This may explain why, among religious women, most changes in faith [post-assault] were toward secularization and not vice versa (p. 11).

In the present study, the stigma around sexual assault that may plague more traditional communities of faith was not evident here. In other words, women did not feel stigmatized while in nature. Thus, nature may help preserve the protective factor of spirituality which may otherwise be shaken in the wake of sexual assault.

In addition to spiritual benefits, the present study also suggested that nature positively influenced participants' sense of self. This finding is relevant since sexual assault may negatively impact survivors in this regard. As Carlson and Dalenberg (2000) stated:

A woman might be raped by a man on a date and be traumatized by the experience...Such an experience might damage her sense of self because of the shame of being raped, guilt over any responsibility she feels for what happened, or anguish over her inability to protect herself from a very negative and unwanted emotional experience. The essential emotional experience in events involving threat to psychic integrity or sense of self is the feeling of not being able to internally protect one's self-image (p. 8).

Therefore, the present study is consistent with the wider literature in suggesting that sexual assault may result in challenges to sense of self. For example, a

survivor may struggle in her relationship with her body. Feeling dirty (Weiss, 2010), engaging in washing behaviours (Sarkar & Sarkar, 2005), as well as difficulty with body image and body disgust (Schechter, Schwartz, & Greenfeld, 1987) are just a few of the many problems noted in the literature.

In contrast, in the present study, stimulation from nature *outside* the body resulted in positive sensations *inside* the body. For example, the feeling of sunshine was described as “warm” and “relaxing.” Similarly, wind on the skin led to feeling “on top of the world.” These experiences could be considered manifestations of *body awareness*. According to Rothschild (2000), body awareness refers to the specific, personal consciousness of sensations triggered from stimuli both inside and outside of the body. She suggested that body awareness alone may help eliminate some symptoms of trauma. Thus, it is not altogether surprising that participants in the present study described it as healing.

Similarly, Burns (1998) argued that stimulating the senses (i.e., sight, hearing, smell, taste, and touch) may provide a means of healing. For example, the senses can be employed as a source of protection, such as when utilizing a state-dependent recall approach to treatment. In contrast, the senses are also a means of obtaining pleasure and gratification, which is the premise behind Burn’s approach to nature-guided therapy. He further explained that sensual gratification of the body results in “chemical and physical changes” that alter affect and bolster psychological health (p. 38). The present study seems to support this idea.

Next, dissociation is a frequently cited side effect of sexual assault (Farley & Keany, 2008; Kilcommons, Morrison, Knight, & Lobban, 2008; Zlotnick et al,

1994) and has been shown to interfere with recovery (Kilcommons, Morrison, Knight, & Lobban). In the present study, nature's ability to reduce dissociative experiences was described as healing. According to trauma expert Bessel van der Kolk "our therapy needs to consist of helping people to stay in their bodies... and that is certainly not something that any of the traditional psychotherapies...help people to do very well" (as cited in Rothschild, 2000, p. 3). However, nature was described as helpful in this regard and thus may provide a unique means of reducing dissociation.

Moreover, reducing dissociation is also important given its relationship with other barriers to recovery. For example, it has been linked to problems such as PTSD (Werner & Griffin, 2012) and psychosis (Allen, Coyne, & Console, 1997). Thus, by reducing dissociation, nature may simultaneously reduce a survivor's risk of secondary problems. To my knowledge, no other research exists demonstrating this relationship between nature and dissociation.

Another potential barrier to recovery is perceived lack of support. According to Orchowski and Gidycz (2012) "25% to 75% of [sexually assaulted] women report they are treated in a way that leaves them feeling hurt, that they were not believed, or that they were blamed for the experience" (p. 266). Furthermore, it has been noted that sexual assault victims fear negative judgment from others (Weiss, 2010). In turn, lack of support and fear of judgment may result in hiding true feelings and behaviours that would benefit survivors to express. In other words, these experiences may lead to inauthenticity. For example, in their narrative study on women's recovery from sexual assault, Saha,

Cheung Chung, and Thorne (2011) explained that participants “described a struggle in which they felt... ‘anxious’ and ‘insecure...’ but felt the need to hide these feelings,” which subsequently resulted in the sense of having a “double self” (p. 104). In contrast, women in the present study described nature as a source of support as well as a place where they could be themselves. The above findings justify further investigation into where and how women are able to foster authenticity. Similarly, such forms of support are likely pertinent to recovery.

In addition to threatening survivor authenticity, sexual assault may wreak havoc on sense of self-worth and confidence (Weiss, 2010). It can result in self-blame (Brillon, Marchand, & Stephenson, 1999), humiliation (Weiss), as well as other negative appraisals (Sharma-Patel, Brown, & Chaplin, 2012; Weiss). Likewise, women in the present study described blaming themselves for the assault, as well as being frustrated with their reaction to it in the months and years that followed. Some participants would not allow themselves to let go of the assault and move on since they felt they deserved to be punished. In line with this finding, Saha, Cheung Chung, and Thorne (2011) found that prior to intervention efforts, survivors spoke as though “there was no meaning to their existence and they did not deserve to have any basic human rights or any kind of goodness in their lives” (p. 106). It seems plausible that such a profoundly negative sense of self may be difficult to rectify, yet it follows that failure to do so can preclude healing. For example, Sharma-Patel, Brown, and Chaplin found self-blame robustly predictive of sexual assault survivor adjustment. In addition to shifts in self-concept requiring rectification, survivors may face temporary or permanent



changes in the self that require acceptance and integration. Accepting the loss of a “normal” childhood (Saha, Cheung Chung, & Thorne, 2011) as well as in the case of incest, the loss of a significant relationship with a trusted other (Cole & Putnam, 1992) are two examples of situations both in this study and the wider literature that may require acceptance.

Survivors in the present study also struggled to accept the assault. The amount of difficulty associated with this process cannot be overstated. Indeed, Davis, Resnick, and Swopes (2011) explained survivors “may believe that life will never be the same again or not know...if recovery is even a possibility” (p. 256). Littleton and Grills-Taquechel (2011) iterated that survivors may need to reconstruct their world view in order to accommodate the sexual assault event. However, nature was an important resource for assisting survivors as they embarked on this journey.

In addition to difficulties with the self, some survivors in the present study had intrusive thoughts about the assault that made it difficult to concentrate on other facets of life; these thoughts were deemed detrimental to the healing process. Similarly, in a narrative study on women recovering from childhood sexual assault (Saha, Cheung Chung, & Thorne, 2011) one participant stated “I didn’t like having the intrusive thoughts and...I suppose I was trying to stop that and I found that the more I tried to stop it the more they came...” (p. 104). This process can be defined as rumination, which refers to persistent and intrusive thoughts that are often unwanted. It can be a symptom of distress and is similar to worry (Cann et al., 2011). Cycles of rumination can be problematic inasmuch as

they can become deeply entrenched in a survivor's life, resulting in them reliving the trauma over and over again (Greenberg, 1995; Silver, Boon, & Stones, 1983). This is concerning since research suggests "cognitive processes in the aftermath of experiencing a major life stressor play an important role in the impact of the event on the person. Intrusive thoughts about the event are likely to be associated with continued distress" (Cann et al., p.137). In other words, rumination in the wake of sexual assault can negatively impact healing. However, all participants in the present study made reference to nature's ability to refocus attention away from the assault and its related problems. This suggests nature may help reduce rumination.

Moreover, participants found that some natural elements such as crystals, and/or specific sites in nature provided them with anchors. An *anchor* is defined as a tangible, external resource (rather than an internal resource such as self esteem), that allows traumatized individuals to achieve respite and well-being when they need a break from intense therapy or thoughts of a trauma (Rothschild, 2000). Rothschild's examples of anchors are often natural phenomena or activities such as "a favorite pet, a site in nature, a tree, a stone, hiking or gardening" (p. 93). In other words, both Rothschild's work and the present study suggest nature may help survivors refocus their attention away from the assault.

Nature also seemed to reduce the amount of emphasis survivors' placed on the assault. It served as a reminder that some facets of life remained untouched by this event, and survivors could immerse themselves in these environments to gain perspective. This sometimes led them to question why they continued to place so

much importance on the assault. This finding is notable since survivors may acquire a predisposition for attending to trauma-related situations or information. Eventually, this form of attending can become overwhelming, thus resulting in attempts to block or disengage from such information (Pineles, Shipper, Mostoufi, Abramovitz, & Yovel, 2009). In other words, survivors may be hypersensitive to content related to sexual assault, and thus eventually develop coping mechanisms (such as dissociation) in order to distance themselves from such information. In contrast, the present study suggested that contact with nature facilitated disengagement from thoughts of sexual assault, but not because such thoughts were being avoided. Rather, it appeared that nature recontextualized and assisted with processing these thoughts in such a way that they were released or better managed. In summary, focusing attention away from the assault distracted survivors and/or reduced the emphasis they placed on this event. Both types of refocusing attention were pertinent to healing.

Based on the above findings, I provide the following recommendations for the use of nature when counselling survivors of sexual assault:

- Help survivors manage negative emotions and look for opportunities to experience positive emotions.

Throughout their healing narratives, participants described various emotional struggles or setbacks that, with nature's support, were ameliorated. This finding is not altogether surprising given that many established treatment modalities found to be effective with sexual assault survivors, such as Prolonged Exposure Therapy (Gallagher & Resick, 2012; Resick, Nishith, Weaver, Astin, &

Feuer, 2002), Emotion-Focused Therapy (Greenberg & Paivio, 1997), and Cognitive-Behavioural Therapy (Leahy, 2003) recognize the benefits of managing, experiencing, and/or better understanding emotion. However, not only does the current study underscore the value of working with emotion, it also suggests nature may be an effective means of doing so. Thus, clinicians should consider exploring with survivors the ways in which nature may influence emotion. More specifically, survivors struggling with anger as well as those who wish to increase feelings of calmness and safety may benefit from spending time in nature.

- Utilize the body.

This study suggests it may be beneficial to incorporate body work into therapy. More specifically, it supports Rothschild's (2000) notion that body awareness alone can benefit survivors. Similarly, Turner & Diebschlag (2001) asserted that body awareness can be a "profoundly therapeutic" (p. 86) practice; an assertion which seems supported by the current findings. However, as demonstrated in the *Treating Sexual Assault* section above, working with the body often involves focusing on negative sensation and emotions. One method employing this type of approach is state-dependent recall. Undoubtedly, there is a place for such work with sexual assault survivors, but it may not always be an appropriate choice. For example, Rothschild (2000) noted that by implementing state-dependent recall, therapists risk bringing additional details of a trauma into consciousness that a survivor may not be prepared to face. Frye and Spates (2012) made similar claims in their clinical case study of a female survivor of childhood

sexual assault. In contrast, nature may utilize positive sensations as resources for healing and change. This may counterbalance traumatic memories and emotions by stimulating the nervous system with natural phenomena the survivor deems pleasurable. Similarly, women in this study described this stimulation as fostering new positive emotions and sensations in the body.

In a similar vein, since traumatic memory may result in an on-going sense of fear and danger, experiencing pleasure can be more foreign to survivors than feeling pain (Turner & Diebschlag, 2001). Thus, familiarizing the survivor with positive sensations may be a suitable means of reacquainting them with pleasure, as well as being a means of repairing the relationship between them and their body. These sensations may also provide a gentle (but important) place from which to commence therapeutic work (Turner & Diebschlag, 2001). Because working with the body in this way does not require the survivor to relive the trauma, even by way of discussion, it may be an appropriate method of building trust and helping the survivor feel comfortable in therapy. It follows that clinicians may wish to learn what stimuli trigger such sensations, and subsequently incorporate these stimuli into therapeutic work. Current findings as well as other work (Burns, 1998; Turner & Diebschlag) suggest nature may provide experiences conducive to creating pleasure.

- Think outside the “therapy box.”

In my first year of graduate studies in counselling psychology, one of my professors said something along the lines of “remember clients are only with us one hour a week, if that.” In the context of the present study, what I take away

from this statement is that it would be folly to ignore resources in survivors' lives aside from formalized therapy. The women in this study worked to heal in tandem with nature; for some, healing also included more formalized therapeutic work, but for others, it did not. Castillo (2011) echoed these sentiments when she stated even the best therapies need to include other elements that appear most beneficial to the client.

Similarly, not only can nature be an adjunct to treatment, it may also be a primary form of treatment in-and-of itself. This statement is supported by the perspectives of survivors in this study whose stories challenge traditional conceptualizations of healing. Professionals may be required to respond to this reconceptualization by considering less traditional ways therapy may occur. For example, rather than treating therapy as an indoor activity, clinicians may wish to consider taking a survivor outdoors instead. It may also mean trusting in the therapeutic process unfolding between nature and survivor, thus casting the therapist into more of a supporting role (Berger & McLeod, 2006) or the role of witness (Weingarten, 2003). Working in this manner also suggests a respect for the survivor as expert (Turner & Diebschlag, 2001). This study also proposes that when working in nature, not all sites may feel safe for all survivors. Thus, allowing the survivor to make her own treatment decisions, including what aspects of nature are incorporated, is important. Since being victimized can involve taking away a person's right to make decisions for themselves (Turner & Diebschlag, 2001), this is also one method of giving the survivor back some of her power. It is also a good reminder that while as therapists we have the potential

to be an important part of a client's healing journey, we are not necessarily at the helm.

- Focus on resilience rather than pathology.

Nature helped survivors access their resilience. For example, it provided a place where they could feel safe and relaxed. They also described it as fostering inner strengths such as self-acceptance and personal authenticity. Survivors seemed to experience this strengths-based focus as healing. Thus, clinicians working with survivors may wish to consider strengths-based approaches such as solution-focused therapy, narrative therapy, or other practices that emphasize and expand upon participants' resilience. Similarly, they may also wish to explore how nature can help facilitate this way of working.

- Include spirituality.

Although largely absent from the current conceptualization and practice of mainstream psychotherapy (Berger & McLeod, 2006), the present study suggests having the opportunity to converse with, or immerse oneself in, an environment deemed entirely accepting has a positive effect on healing. Although many therapists believe in adopting a stance of nonjudgment, some survivors felt that the fallibility of being human rendered nonjudgment an impossibility, even within the therapeutic relationship. Thus, they preferred to turn to nature for this type of support. Turner and Diebschlag (2001) also recognized the utility of including spirituality and nature in healing from traumas such as sexual assault. Clinicians should therefore consider working with survivors to identify sources of spiritual support. Similarly, if spiritual resources prove difficult to identify, in order to

create opportunities to develop such resources, it may be helpful to encourage survivors to engage with nature.

- Use both in vivo as well as less direct encounters with nature

The current study as well as previous work suggests therapists need not have access to secluded wilderness areas in order to utilize nature (Ulrich, Dimberg, & Driver, 1991). Looking out a window and creating mental pictures of nature in one's mind were two examples of how nature was used for healing in this study. In other words, therapists may wish to utilize the concept of a *temporary escape*. While such an escape may most certainly involve a trip to the wilderness, it can also take the form of a mental escape via daydreaming about nature, meditating, or enjoying a nice view (Ulrich et al.). Moreover, the simple act of buying flowers was also found to increase positive affect in the current study. Brainstorming ways nature can be incorporated into therapy may be a pleasurable activity, as well as a chance for survivors to learn about their preferences. Furthermore, this flexibility allows therapeutic work to pace the survivor. For example, one individual may wish to engage in a week of adventure therapy in a remote area, whereas another may experience fear and a sense of exposure in the same situation. The latter individual may feel more comfortable doing a guided meditation with the therapist, such as those provided in the book *Wherever you Go, There you Are* by John Kabot-Zinn (1994). Both of these examples may be conceptualized as ways of utilizing nature in practice.



### **Limitations and Recommendations for Future Research**

There are several limitations in this study which future research may wish to address. Firstly, only four participants were included. Given this relatively small number, the possibility remains that not all relevant themes pertinent to the research question have been fleshed out. For example, some themes only apparent in one or two narratives may have developed into common themes had more participants been included. Similarly, one participant did not complete a second interview and therefore it is unclear what additional information may have been gleaned had this interview taken place. Thus, future research should be conducted using a larger sample.

Secondly, some perspectives are missing from the present study, including those from indigenous, male, and clinical populations specifically. The absence of indigenous perspectives is a particularly important consideration given the high prevalence rate of sexual assault reported among these ethnic groups (Koss, Gidycz, & Wisniewski, 1987; Statistics Canada, 2006). Moreover, some indigenous cultures may consider the natural environment integral to identity (Hernández, Hidalgo, Salazar-Laplace, & Hess, 2007), which suggests that incorporating nature into treatment of sexual assault within these cultures may be particularly valuable.

Similarly, although justification for excluding males exists in the literature, it resulted in the lack of a male perspective on the research question. To my knowledge there is no research on how (or if) men find nature healing after sexual assault. Therefore, it is imperative this question be explored and men be

given the opportunity to share their unique stories and perspectives.

Moreover, given my use of a purposeful sample drawn from the community, this thesis does not provide specific insight into how nature may be healing for clinical populations. Although our knowledge about the relationship between nature and healing from specific psychological difficulties, such as anxiety and depression, is growing, it would behoove the field to generate further research evidence in this regard. Indeed, two participants in the present study stated nature was healing for more than just sexual assault. For example, it helped one participant recover from an eating disorder, while another participant found it beneficial for the physical and mental health of orphans. Although beyond the scope of this study, more research on how nature facilitates healing from a variety of difficulties is warranted.

Thirdly, while both qualitative and quantitative researchers have begun investigating the therapeutic properties of nature, to my knowledge no quantitative studies have examined the relationship between nature and sexual assault. An interesting topic that may lend itself to a quantitative approach could be an investigation of whether or not differences exist in the healing trajectories of women and men who include nature in their recovery and those who do not.

Lastly, research on survivor strength, resilience, and healing is relatively limited in comparison to the research on pathology. While perusing the literature, I was struck by how much we know about the negative consequences of assault, such as its connection with PTSD; however, there were limited resources available to help me better understand how survivors heal.

### **Conclusion and Reflexive Afterword**

In attempting to capture the healing stories of these four unique female survivors of sexual assault, my hope is that the reader will come away with a new understanding of nature's potential role in healing from this form of trauma. I believe it fitting to conclude with the words of a woman reflecting on how her connection with nature brought her to a place of "goodness" or healing:

I realized that's not a place I come from often, trusting in my own goodness. That's what the Earth does for me. Look at how good I feel laying down on the ground; that's goodness. That was a huge connection for me, to celebrate from that place of 'I am good.' That is the essence of what the Earth has taught me and that has translated into how I feel about myself... (Hennigan, 2010, p. 138).

I cannot help but wonder if similar narratives are the inspiration behind Harber and Pennebaker's (1992) statement "by spinning out my tale into a coherent narrative string, I begin to unravel the traumatic knot" (p. 378).

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*Appendix A***Study Information Document****Research Study Title:****How Does Nature Help Women Heal from Sexual Assault: A Narrative Analysis****Principal Researcher:**

Ceri Moore  
Counselling Psychology Master's Student  
Department of Educational Psychology  
University of Alberta  
E-mail: [ceri@ualberta.ca](mailto:ceri@ualberta.ca)

**Research Supervisor:**

K. Jessica Van Vliet, Ph.D., R.Psych.  
Assistant Professor  
Department of Educational Psychology  
University of Alberta,  
Telephone: (780) 492-5894  
E-mail: [jvanvliet@ualberta.ca](mailto:jvanvliet@ualberta.ca)

People cope with potentially traumatic experiences such as sexual assault in many different ways. Research suggests that positive life experiences, such as a good social support network, may assist in healing from sexual assault. However, there is limited research exploring how nature may assist healing. Therefore, the purpose of this study is to better understand how nature helps women heal after a sexual assault. It is hoped that through this research the role that nature may play in psychology will be further clarified.

My name is Ceri Moore and I am the principal researcher for this study. This study represents the thesis portion of my Master's of Counselling degree at the University of Alberta. If you decide to participate in my thesis research, we will engage in an in-person interview at the University of Alberta Education Clinical Services. You will be asked to select a false name for use during the interview to protect your confidentiality. At this time I will ask you about your experience of healing through nature after a sexual assault. Examples of questions that may be asked include: "What were your thoughts and feelings like during the healing experience? In what ways were you healed? Was there anything challenging about healing through nature?" The average interview is expected to take 1 to 1 ½ hours to complete, but this timeline will vary just as each participant's story will vary. To ensure a clear understanding of your experience has been achieved, at some point after the initial interview you will be asked to review the transcript in a follow-up interview, either in-person or over the phone, with the principal researcher. This will allow you to add, remove, or edit your words and to elaborate on your perspective.

All information is strictly confidential and will be treated accordingly (e.g., saved on a password protected computer and/or USB key in an encrypted file, or in a locked filing cabinet). All interviews will be audio-recorded and only the research team will have access to these recordings. Once the interviews are complete, they will be forwarded for typing. The member of the research team completing the typing will be required to sign a confidentiality agreement before coming into contact with any study data, and they will not be provided with your real name. Only the principal researcher and her supervisor will be aware of your real name. All other documents (e.g., transcripts, audio-recordings) will contain the false name you provide.

Your participation in this study is voluntary. You are free to ask questions throughout your involvement and at any time you can refuse to answer specific questions or address certain subject matter. If you choose to withdraw from the study, you may do so without consequence. It should be noted that if you do choose to withdraw, data can be removed up to three weeks after you have been provided with the interview transcript. If after three weeks you inform me that you would like to withdraw from the study, not all of the data will be able to be removed; however I can remove any quotations or mention of your participation.

Participants may find being in this study is a positive experience since they can share their stories, thoughts, and feelings about how nature helped them heal from sexual assault. However, discussing this topic may be emotionally distressing for some participants. Thus, participants are asked to let the primary researcher know if they experience emotional distress as a result of this discussion, so she can provide them with contact information for no-cost or low-cost counselling services.

Information from this study may be published in a variety of formats (e.g., journals, books, conferences) to help increase awareness around the benefit of including nature in the healing process. Real names will not be used in any publications. All research data will be treated in compliance with University of Alberta Standards as outlined in the *University of Alberta Standards for the Protection of Human Research Participants* (document available at <http://www.uofaweb.ualberta.ca/gfcpolicymanual/policymanualsection66.cfm>). Upon your request, the research findings will be available at the study's completion.

Moreover, all data collected will be retained for a minimum of five years after the conclusion of the study as this is a requirement of Research Ethics Board of The University of Alberta.

Thank you for considering participation in this study. For any other questions or concerns please contact Ceri Moore or Dr. Jessica Van Vliet as indicated above. All correspondence will be confidential.



The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Research Ethics Board (REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at [\(780\) 492-2615](tel:7804922615).

*Appendix B***Informed Consent Form****Research Study Title:****How Does Nature Help Women Heal from Sexual Assault: A Narrative Analysis****Principal Researcher:**

Ceri Moore  
Counselling Psychology Master's Student  
Department of Educational Psychology  
University of Alberta  
E-mail: [ceri@ualberta.ca](mailto:ceri@ualberta.ca)

**Research Supervisor:**

K. Jessica Van Vliet, Ph.D., R.Psych.  
Assistant Professor  
Department of Educational Psychology  
University of Alberta  
Telephone: (780) 492-5894  
E-mail: [jvanvliet@ualberta.ca](mailto:jvanvliet@ualberta.ca)

People cope with potentially traumatic experiences such as sexual assault in many different ways. Research suggests that positive life experiences, such as a good social support network, may assist in healing from sexual assault. However, there is limited research exploring how nature may assist healing. Therefore, the purpose of this study is to better understand how nature helps women heal after a sexual assault. It is hoped that through this research the role that nature may play in psychology will be further clarified.

My name is Ceri Moore and I am the principal researcher for this study. This study represents the thesis portion of my Master's of Counselling degree at the University of Alberta. If you decide to participate in my thesis research, we will engage in an in-person interview at the University of Alberta Education Clinical Services. You will be asked to select a false name for use during the interview to protect your confidentiality. At this time I will ask you about your experience of healing through nature after a sexual assault. Examples of questions that may be asked include: "What were your thoughts and feelings like during the healing experience? In what ways were you healed? Was there anything challenging about healing through nature?" The average interview is expected to take 1 to 1 ½ hours to complete, but this timeline will vary just as each participant's story will vary. To ensure a clear understanding of your experience has been achieved, at some point after the initial interview you will be asked to review the transcript in a follow-up interview, either in-person or over the phone, with the principal

researcher. This will allow you to add, remove, or edit your words and to elaborate on your perspective.

All information is strictly confidential and will be treated accordingly (e.g., saved on a password protected computer and/or USB key in an encrypted file, or in a locked filing cabinet). All interviews will be audio-recorded and only the research team will have access to these recordings. Once the interviews are complete, they may be forwarded for typing. The member of the research team completing the typing will be required to sign a confidentiality agreement before coming into contact with any study data, and they will not be provided with your real name. Only the principal researcher and her supervisor will be aware of your real name (which is printed and signed at the bottom of this form). All other documents (e.g., transcripts, audio-recordings) will contain the false name you provide.

Your participation in this study is voluntary. You are free to ask questions throughout your involvement and at any time you can refuse to answer specific questions or address certain subject matter. If you choose to withdraw from the study, you may do so without consequence. It should be noted that if you do choose to withdraw, data can be removed up to three weeks after you have been provided with the interview transcript. If after three weeks you inform me that you would like to withdraw from the study, not all of the data will be able to be removed; however I can remove any quotations or mention of your participation.

You may find being in this study is a positive experience since you can share your stories, thoughts, and feelings about how nature helped you heal from sexual assault. However, discussing this topic may be emotionally distressing for some participants. Thus, you are asked to let the primary researcher know if you experience emotional distress as a result of this discussion, so she can provide you with contact information for no-cost or low-cost counselling services.

The information you provide may be published in a variety of formats (e.g., journals, books, conferences) to help increase awareness around the benefit of including nature in the healing process. Your real name will not be used in any publications. All research data will be treated in compliance with University of Alberta Standards as outlined in the *University of Alberta Standards for the Protection of Human Research Participants* (document available at <http://www.uofaweb.ualberta.ca/gfcpolicymanual/policymanualesection66.cfm>). Upon your request, the research findings will be available at the study's completion.

Moreover, all data collected will be retained for a minimum of five years after the conclusion of the study as this is a requirement of Research Ethics Board of The University of Alberta.

I acknowledge that I have read and understood the above consent form. I therefore give my consent to participate in this study by signing this form below. After

signing this form, I retain the right to withdraw from the study at any time without penalty.

\_\_\_\_\_  
Name of Participant (please print)  
Participant

\_\_\_\_\_  
Signature of

\_\_\_\_\_  
Name of Investigator (please print)  
Investigator

\_\_\_\_\_  
Signature of

\_\_\_\_\_  
Date

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Research Ethics Board (REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

*Appendix C***General Interview Questions**

**Background question:** I'd like to spend the next few minutes getting to know you a bit, so can you tell me a little about yourself?

**Central Interview Question:** Please tell me about your healing experiences with nature after the sexual assault. Please provide as much detail as you can. I will be taking some notes and recording your story.

Any other questions that follow will strive to gain additional narratives on the topics raised by the participant when answering the question above. Please see below for examples of additional questions that were asked:

1. What were your thoughts and feelings like when you were having this healing experience in nature? Can you tell me a story that captures this experience in detail?
2. What were you feeling in your body? Can you tell me a story or describe an incident that will give me a detailed understanding of what you were feeling in your body, when nature was helping you feel better?
3. Describe what you were seeing, hearing, tasting, smelling and/or touching during the healing experience.
4. Describe what it is about nature you found most healing or beneficial.
5. Is there anything specific about this experience that sticks out for you as being particularly important?
6. In what ways were you changed or healed?
7. What differences do you see in yourself after having this healing experience in nature?
8. Was there anything challenging about healing through nature?

*Appendix D***Confidentiality Agreement****Research Study Title:****How Does Nature Help Women Heal from Sexual Assault: A Narrative Analysis**

I, \_\_\_\_\_, the \_\_\_\_\_  
 (specific job description, e.g., research assistant/transcriber) have been employed  
 to \_\_\_\_\_

I agree to:

1. ensure all the study information given to me remains confidential by refraining from discussing or disclosing study information in any form or format (e.g., audio recordings, transcripts, USB information) with anyone other than the *Researcher(s)*.
2. ensure all study information in any form or format (e.g., audio recordings, transcripts, USB information) remains protected and secure while it is in my possession.
3. return all study information in all forms or formats (e.g., audio recordings, transcripts, USB information) to the *Researcher(s)* when I have finished my research task(s).
4. after consulting with the *Researcher(s)*, erase or destroy all information pertaining to this study in any form or format (e.g., data saved on the computer hard drive).

---

(Print Name)

---

(Signature)

---

(Date)

*Researcher(s)*

Ceri Moore

---

(Print Name)

---

(Signature)

---

(Date)

*Appendix E*

**Edmonton Counselling Resources**

**University of Alberta Education Clinical Services**

*Hours of Operation (summer):*

Monday-Friday 8:00 a.m.-4:00 p.m.

*Hours of Operation (general):*

Monday-Thursday- 8:30 a.m.-8:00 p.m.

Friday-8:30 a.m.-4:00 p.m.

Saturday-9:00 a.m.-5:00 p.m.

*Phone Number:*

780-492-3746

*Address:*

1-135 Education North Bldg.  
University of Alberta  
Edmonton, Alberta  
T6G 2G5

**The Family Centre**

*Hours of Operation:*

Mon - Thur 8:30 am - 8:00 pm

Fri 8:30 am - 4:00 pm

Sat 9:00 am - 4:00 pm

*Phone Number:*

1st Time Appointments (780) 424-5580

Reception (780) 423-2831

*General E-Mail:* [info@the-family-centre.com](mailto:info@the-family-centre.com)

*Address:*

9912 106 Street Northwest  
Edmonton, AB  
T5K 1C5

**The YWCA**

*Hours of Operation:*

Mon, Wed, Fri 9:00 am - 5:00 pm  
Tues and Thurs 9:00 am - 9:00 pm

*Phone Number:*

(780) 423-9922 ext 222

*General E-Mail:* [information@ywcaofedmonton.org](mailto:information@ywcaofedmonton.org)

*Address:*

100 10350 124 Street  
Edmonton, AB  
T5N 3V9

**CASA**

*Phone Number:*

(780) 342-2701

*website:* <http://www.casaservices.org/>

*Address:* There are four locations. Please consult website for which location is most convenient for your family.