

SHILLING, ELIZABETH HODGES, Ph.D. *Alternate Forms of Adjustment in Adult Women Survivors of CSA: The Relationship Between Wellness, Resilience, and Post-Traumatic Growth.* (2012)

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Women disproportionately experience victimization as children, with at least one in five women reporting a history of child sexual abuse. The short and long term effects, both physical and emotional, are significant, negative, and pervasive, making CSA a critical physical and mental health issue for a significant portion of women in the United States. However, while many survivors experience negative long-term effects, a significant portion do not. This study addressed the need for greater attention to factors which depathologize this population, particularly the experiences of survivorship and how these are expressed in terms of wellness, resilience and post-traumatic growth (PTG).

A sample of 163 adult women survivors completed an online survey comprised of instruments measuring wellness, resilience, PTG, and post-traumatic stress. A series of correlations revealed positive relationships between wellness factors and resilience, and wellness factors and PTG. Negative correlations were found between PTS symptoms and Resilience, and PTS symptoms and Wellness. Resilience and PTG were negatively correlated, a finding contrary to the conceptualization in the literature. A MANOVA and a series of linear regressions analyzed factors that might contribute to the variance in the major constructs. The results of the MANOVA indicated that the relationship to the perpetrator only affected PTS symptoms: women abused by a relative had significantly higher PTS symptoms. The results of the linear regressions indicated that the variables

(current age, additional childhood maltreatment, reported current impact of CSA, CSA severity, and age at onset of abuse) accounted for a very small percentage of the variance in Wellness (16%) and Resilience (10%), and a greater amount of variance in total PTS symptoms (39%). The variables did not account for a significant amount of variance in PTG. The largest contributor of the variance in Wellness, Resilience, and PTS symptoms was the current impact of CSA while CSA severity was a significant contributor to PTS symptoms. A series of t-tests were conducted to analyze the difference between the wellness of this sample and the wellness reported by the normative group. Results indicated that the women in this sample had significantly lower Creative Self, Social Self, and Essential Self wellness but had significantly higher Physical Self wellness. No significant difference was found for Total Wellness and Coping Self wellness. The results of the final analysis, a hierarchical linear regression, indicated that above and beyond demographic variables, Resilience by far, and PTG, to a much smaller degree, were significant predictors of the variance in wellness factors. Additional research is necessary in order to further explore the relationships between wellness factors, resilience, and PTG.

ALTERNATE FORMS OF ADJUSTMENT IN ADULT WOMEN SURVIVORS OF
CSA: THE RELATIONSHIP BETWEEN WELLNESS, RESILIENCE,
AND POST-TRAUMATIC GROWTH

By

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Approved by

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Dedicated to my grandparents.

Helen “Honey” Kennedy – your passion has instilled in me a deep respect for life.

Kenneth and Muriel Hodges and Warren Kennedy – you are deeply missed.

APPROVAL PAGE

This dissertation has been approved by the following committee of the Faculty of the Graduate School at the University of North Carolina at Greensboro.

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CHAPTER I

INTRODUCTION

The rates of child sexual abuse (CSA) experiences for girls and adolescent females are staggering; researchers report that at least one in five women indicate a history of CSA and in some cases, the figure grows to as high as one in every two women (Leverich et al., 2002; Ouimette, Kimerling, Shaw, & Moos, 2000; Pereda, Guilera, Forns, & Gómez-Benito, 2009). Variations in reported prevalence rates are common; despite this, CSA experiences remain consistently high in women. In addition, reported prevalence rates of CSA often are significantly higher in women than men, (Briere & Elliott, 1994; Leverich, et al.; Ouimette, et al.; Pereda, et al., 2009; Sachs-Ericsson, Blazer, Plant, & Arnow, 2005; Scher, Forde, McQuaid, & Stein, 2004), with some researchers reporting that women experience sexual violence in childhood and adolescence at a rate three times that of men (The National Center for Victims of Crime, 2007). Such startling figures are indicative of a pervasive health issue for women in the United States; one that frequently leads to significant, negative long-term outcomes. Over 3,000 published empirical articles have reported negative health outcomes in women affected by CSA, including both increased physical health and psychological problems (J. Davis & Petretic-Jackson, 2000; Hunter, 2006). Women survivors of CSA may experience increased costs related to health care, greater somatic difficulties,

increased frequency of negative physical health symptoms, and decreased health-related quality of life (Dickinson, deGruy III, Dickinson, & Candib, 1999; Havig, 2008; Hulme, 2000; Lundqvist, Hansson, & Svedin, 2004; Maniglio, 2009; Modestin, Furrer, & Malti, 2005; Newman et al., 2000; Sachs-Ericsson, et al., 2005). In addition, psychological symptoms resulting from CSA include posttraumatic stress, suicidality, self-injury, obsessions and compulsions, somatization, dissociation, anxiety, depression, sexual dysfunction, substance abuse, low self-esteem, self-blame, guilt, anger, helplessness, sleep impairment, disordered eating, risky sexual behavior, and increased interpersonal problems (Batten, Follette, & Aban, 2001; Classen, Field, Koopman, Nevill-Manning, & Spiegel, 2001; J. Davis & Petretic-Jackson; Dennerstein, Guthrie, & Alford, 2004; Hund & Espelage, 2005; Jumper, 1995; Neumann, Houskamp, Pollock, & Briere, 1996; Paolucci, Genuis, & Violato, 2001). When considering both the high incidence of CSA in women and the likelihood of negative health outcomes related to experiencing sexual abuse as a child, it is increasingly evident that a significant portion of the population of women in the United States experience some degree of physical and mental health problems related to CSA.

Although CSA results in a multitude of negative long-term effects in a substantial number of women survivors, severe negative outcomes are not the sole survival trajectory (Briere & Elliott, 1994; J. Davis & Petretic-Jackson, 2000; Herman, 1997; Hunter, 2006). Often adult women survivors of CSA experience varying degrees of negative symptomatology after CSA and some survivors experience few to no negative symptoms. However, the majority of the outcome literature on adult survivors has focused solely on

negative outcomes, resulting in an incomplete picture of the survival processes after CSA. If not all women experience negative outcomes, then it can be assumed that some women experience processes of healing or growth after CSA. However, little to nothing is known about these experiences in survivors, and what is known is confounding. For example, the terminology used to describe differential outcomes includes resilience, the process of positive adaptation despite adverse conditions, and post-traumatic growth, the experience of growth after trauma. And although defined as two separate constructs, significant overlap exists between the two. These constructs also represent fairly abstract concepts that present challenges in application. In contrast, the idea of wellness, a holistic, strength-based philosophy for conceptualization and intervention with clients, may represent a desired outcome while also providing a means of therapeutic intervention. A better understanding of the differential outcomes is a necessary next step in identifying appropriate evidenced-based counseling approaches for survivors in a manner that promotes the process of adjustment.

Alternate Forms of Adjustment

For survivors of CSA, the idea of alternate outcomes to psychological problems is relatively new. It represents a shift “away from a primary reliance upon pathological lenses (deficit model) and towards a promotion of individual and community strengths and agency” (Cadell, Karabanow, & Sanchez, 2001, p.21). The concept that survivors of CSA can have successful and healthy outcomes seems counterintuitive to the known effects of CSA. However, as researchers continued to investigate the psychological and physical impact of CSA on survivors, it became clear that a significant number of

survivors move through life without experiencing pervasive, negative outcomes as a result of the traumatic experiences they had in childhood or adolescence. Despite the realization of such an important trend, few researchers have chosen to focus their attention on alternate forms of adjustment in adult survivors of CSA. Important trends in several areas begin to illuminate potential means of describing alternate survival outcomes. For example, researchers in counseling have looked at the implications of holistic approaches to conceptualizing the experiences of individuals, including an increased focus on wellness. Simultaneously, others have focused more on concepts including resilience and PTG and highlight ways in which CSA survivors might experience pathways of growth and healing. Although these foci are promising, it remains unclear how these constructs relate to one another or the experiences of adult survivors of CSA.

Wellness. Wellness first emerged as means of conceptualizing positive health, described at its conception as the absence of disease (Dunn, 1961). From this initial focus on the absence of disease, wellness gained in application with the recognition of a need for an approach to balance the heavily favored discourse on disease models (Roscoe, 2009). From these early beginnings, the construct of wellness has grown to equal more than just the absence of disease and an approach to mitigating disease models. Presently, wellness is viewed as the culmination of health factors and behaviors that contribute to the process of an individual attaining his or her maximum potential (Harari, Waehler, & Rogers, 2005).

The concept of wellness, described in the Indivisible Self model of wellness (IS-WEL; Myers & Sweeney, 2004) incorporates domains of both physical and mental health, taking into consideration daily behaviors of safety and personal maintenance alongside of larger issues of interpersonal functioning and spirituality. The focus on development and holistic health is derived from Individual psychology principles, and based on counseling and developmental theory (Myers & Sweeney; Myers, Sweeney, & Witmer, 2000). The strong theoretical background of the Wheel of Wellness model, the IS-WEL's predecessor, provides a solid base from which the IS-WEL is founded. The inclusion of contextual influences, gender differences, and life-span development provide for a truly holistic approach to everyday living (Hartwig & Myers, 2003). Within the IS-WEL model, five domains contribute to the whole of the Individual Self: the Essential Self, the Creative Self, the Coping Self, the Social Self, and the Physical Self (Hattie, Myers, & Sweeney, 2004; Myers & Sweeney). The five domains represent all areas of an individual's life, with each domain having the ability to interact and affect the others. Within the five domains are 17 subfactors: under the Essential Self are Spirituality, Self-Care, Gender Identity, and Cultural Identity; aspects of the Creative Self are Thinking, Emotions, Control, Positive Humor, and Work; the Coping Self subfactors are Realistic Beliefs, Stress Management, Self-Worth, and Leisure; within the Social Self are Friendship and Love; and as factors of the Physical Self are Exercise and Nutrition.

The applicability of this model to adult women survivors of CSA is particularly relevant given the holistic nature of the model and the significant variance in outcomes of survivors. The survival variance characteristic of adult women survivors of CSA includes

challenges related to all aspects of life. Historically, attempts at understanding survivors have focused on negative mental health symptomatology in spite of the propensity for CSA to affect all aspects of a woman's life. A wellness focus, in contrast, assesses the entirety of one's functioning and provides specific interventions applicable to all areas of life. Specifically, the IS-WEL model is a basis for the identification of areas where survivors may experience challenges but were previously ignored due to the sole focus on mental health symptomatology (Hodges & Myers, 2010). In addition, the IS-WEL model recognizes and highlights areas of strength and can build upon these areas in order to affect positive change in other life areas. The holistic nature of the IS-WEL model may provide the necessary complete context for understanding and describing the experiences of adult women survivors of CSA.

Resilience. As researchers began to recognize that some survivors of childhood traumas do not experience problematic outcomes, the need to understand this mechanism arose. While the investigations of survivors of trauma focused on identifying risk factors, the shift that occurred to accommodate positive outcomes congruently focused on identifying protective factors. Resilience emerged as a one of these buffering factors, along with concepts such as stress-resistance, invulnerability, and hardiness (Cadell, et al., 2001). Of the buffering factors, resilience received the most attention and as such, has remained in the forefront of constructs that characterize positive adjustment or outcomes.

A split exists in the study of resilience, however, with three distinct philosophies emerging (Philippe, Laventure, Beaulieu-Pelletier, Lecours, & Lokes, 2011). The first approach defines resilience as a set of protective factors that have helped moderate the

effects of trauma on the individual (Luthar, Cicchetti, & Becker, 2000; Philippe, et al.). The second describes resilience as a potential outcome of trauma with two necessary conditions: exposure to trauma and positive adaptation despite adverse experiences (Kaplan, 2002; Luthar, et al.). Finally, the third approach describes resilience as a trait developed through a process over time that enables individuals to adapt successfully throughout life and is often called ego resilience or psychological resilience (Philippe, et al.). The primary difference between the last two conceptualizations is that resilience as an outcome presupposes exposure to adversity, while ego resilience does not (Philippe, et al.).

The focus on resilience as an outcome versus resilience as a cause or influence has garnered much attention in the literature, with advantages and disadvantages associated with both approaches (Luthar, et al., 2000; Philippe, et al., 2011). Although the debate over which resilience approach (outcome vs. process) remains active, numerous authors have argued for the validity of the process approach (Bonanno, 2004; Luthar, et al.; Rutter, 2007). The conceptual frameworks of process approaches to resilience maintain a great deal of similarities: all consider the interactions between individuals and their environments across developmental stages (Kaplan, 2002). This approach remains flexible, allowing for the definition of resilience to change as individuals develop and move through different stages of life. It is this focus on adaptability across life domains and developmental stages that contribute to the viability of the process model of resilience and its applicability to adult women survivors of CSA.

Although the study of resilience has been limited by methodological problems and its strong tie to the normative values of our society (Kaplan, 2002), there is value in understanding how individuals develop or adapt positively, based on their individual perceptions, after an experience like CSA. Initial research into protective factors and processes that comprise resilience in CSA survivors have identified three categories of factors: environmental, those involving aspects of relationships and social support; cognitive, those involving internal processes including locus of control and optimism; and active, those involving behavioral factors such as self-care (Bogar & Hulse-Killacky, 2006; Collishaw et al., 2007; Edmond, Auslander, Elze, & Bowland, 2006; M. Friedman, 2007; Ligiéro, Fassinger, McCauley, Moore, & Lyytinen, 2009; Menna, 2008; Singleton, 2004; Thomas & Hall, 2008; Valentine & Feinauer, 1993; Wang, Shi, Zhang, & Zhang, 2010). However, clearly, more empirical validation is necessary, especially in regard to how CSA survivors might demonstrate resilience over time. Resilience may account for differential outcomes, or other approaches, notably PTG, may describe the differential pathways more completely.

Post-Traumatic Growth. An additional pathway of healing after trauma has been described as post-traumatic growth (PTG). Rooted in existential-humanistic psychology, the development of the concept of PTG arose out of the need to identify specific processes of growth that occur in individuals who have experienced a significant trauma (Joseph & Linley, 2006; Linley & Joseph, 2004; Tedeschi & Calhoun, 1995, 1996, 2004). Other terms for this process have included adversarial growth (Linley & Joseph), stress-related growth, perceived benefits, flourishing, thriving (Bhushan &

Hussain, 2007), growth following highly stressful life events (Park & Helgeson, 2006), and wisdom (Baltes & Staudinger, 2000). According to Tedeschi and Calhoun (1995), PTG is the experience of positive change after a traumatic experience, in both emotional and psychological areas of life. The result of the experience of PTG is improved quality of life, with gains in overall wisdom.

Keys to the experience of PTG are improvements or growth in five primary dimensions: interpersonal relationships, new possibilities, appreciation for life, spiritual change, and personal strength (Calhoun & Tedeschi, 2006; Cobb, Tedeschi, Calhoun, & Cann, 2006; Linley, Andrews, & Joseph, 2007; Taku, Cann, Calhoun, & Tedeschi, 2008; Tedeschi & Calhoun, 1995, 1996, 2004; Tedeschi, Park, & Calhoun, 1998a, 1998b). Each of these dimensions represents a primary area where growth is often seen after a traumatic experience: although PTG is represented by growth in all domains, individuals can evidence growth in individual domains as well. Researchers have found evidence for PTG after a wide range of experiences including health related issues such as disease and cancer (Abraído-Lanza, Guier, & Colón, 1998; Bellizzi et al., 2010; Bostock, Sheikh, & Barton, 2009; Lechner, Carver, Antoni, Weaver, & Phillips, 2006; Milam, 2006; Sears, Stanton, & Danoff-Burg, 2003; Sheikh, 2004; Thornton & Perez, 2006; T. Weiss, 2004; Widows, Jacobsen, Booth-Jones, & Fields, 2005), the loss of a loved one (Cadell, Regehr, & Hemsworth, 2003; Polatinsky & Esprey, 2000), and after a traumatic event (Calhoun, Tedeschi, Cann, & Hanks, 2010; Snape, 1997; Tedeschi & Calhoun, 1995, 1996; Triplett, Tedeschi, Cann, Calhoun, & Reeve, 2011; Wild & Paivio, 2003b). The

experience of PTG has been related to less depression, and greater well-being, optimism, religiosity, and coping (Helgeson, Reynolds, & Tomich, 2006; Prati & Pietrantonio, 2009).

Despite the empirical support of PTG in survivors of varying traumas, some researchers have criticized the construct. One of the major criticisms has been whether PTG is perceived or actual (Butler, 2007; Frazier et al., 2009; Helgeson, et al., 2006; Joseph & Linley, 2006; McFarland & Alvaro, 2000), with studies indicating that perceived PTG is likely problematic for individuals. Critics recommended the inclusion of corroborating measures to ensure that perceived PTG is equal to actual PTG, however, few studies have moved beyond the simple report of the presence of PTG. An additional criticism of the PTG construct has come in its comparison to resilience and whether these two constructs represent distinct experiences. Although likely a relevant experience for adult survivors of CSA, little research has investigated PTG or related processes such as resilience, in adult women survivors.

Statement of the Problem

How can we unpack stressful and beneficial life events and adjustment processes into components and configurations that are theoretically and clinically useful?
(Layne et al., 2009)

Research on adult women survivors of CSA has recognized the varied outcomes possible for survivors; however, this research has focused almost singularly on the negative psychological outcomes for adult women survivors. With an intention to identify methods of therapeutic interventions, this approach seemed plausible. However, in order to truly grasp the experiences of adult women survivors, it is necessary to understand the

healing experiences and the characteristics and qualities of these experiences. Few researchers have focused on the concept of healing for adult women survivors of CSA. The research that does exist widely varies, with researchers using divergent constructs, including resilience and PTG, to represent this experience.

A growing number of researchers have recognized the benefit of investigating alternate survival trajectories in trauma victims (Bonanno, 2004; Bonanno & Mancini, 2010; Layne, et al., 2009). In the context of trauma, alternate outcomes are a way to synthesize and quantify the differential pathways exhibited by survivors after trauma. One of the premises propelling the investigation of alternate healing trajectories is that the knowledge of the processes and factors involved in healing trajectories can be useful in the facilitation of healing promoting interventions (Layne, et al.). These healing trajectories, however, are more than simply the sum of protective factors – rather, healing trajectories are complex processes that involve promotive, facilitative, and inhibitory factors (Layne, et al.). Despite a call for further research on survival trajectories, especially those that focus on alternate healing pathways (M. Friedman, 2007; Layne, et al.; Layne, Warren, Watson, & Shalev, 2007; Masten, 2007; Silva & Kessler, 2004), few researchers have chosen to investigate these topics. Initial research on survival trajectories in general, and healing trajectories, specifically, of adult women survivors of CSA is extremely limited. Only one study has attempted to identify survival trajectories in adult survivors of childhood abuse (e.g. Thomas & Hall, 2008) but included survivors of all forms of childhood abuse, thereby blurring the probable differences between survival trajectories of individuals with differing abuse experiences.

A need exists for a greater depth of research in the area of healing trajectories in adult women survivors of CSA. Women survivors may exhibit experiences that align with descriptions of processes of resilience and PTG. While understanding these experiences could provide valuable information applicable to interventions, corroboration of how these processes may affect overall wellness is also necessary, and is yet another area warranting further attention. There remains a significant lack of research in the area of healing in adult women survivors of CSA, resulting in the need for a study to address these areas.

Purpose of the Study

The purpose of this study was to address an important gap in child sexual abuse literature related to strengths and healing processes. This study is the first to examine the relationships among wellness, resilience, and post-traumatic growth in adult women survivors of CSA. Further, this study analyzed how specific aspects of child sexual abuse experiences affect the outcomes of wellness in these women. Understanding the alternate forms of adjustment of adult women survivors of CSA informs clinical practice and education related to survivors of CSA. The results about the relationship between wellness, resilience, and PTG provides counselors with a starting point for developing strengths-based interventions to increase the wellness of CSA survivors. In addition, this knowledge informs the development of a research agenda to develop additional interventions to promote the wellness of this population.

Research Questions

The following research questions were addressed:

1. What are the relationships between wellness, post-traumatic growth, resilience, and post-traumatic stress (PTS) symptoms among adult women survivors of CSA?
2. Are there differences in mean scores of wellness, resilience, post-traumatic growth, and PTS symptoms among adult women survivors of CSA based on perpetrator status?
3. How do factors including current age of participants, additional childhood maltreatment, level of resolution, and age at onset of abuse predict total wellness, post-traumatic growth, resilience, and PTS symptoms?
4. What are the 5F-Wel subscale scores and total score of participants, as measured by the 5F-Wel instrument, and how do these compare to general population norms?
5. What proportion of the variance in the wellness of adult women survivors of CSA can be accounted for by resilience, PTG, PTSD symptoms, and aspects of the sexual abuse experiences?

Definition of Terms

Child sexual abuse (CSA) referred to any type of sexual abuse, to include both touching and non-touching events, which occurred prior to the age of 18 years old.

Adult woman survivor of CSA is a descriptive term that refers to women, 18 and older, who were sexually abused as children. For the purposes of this study, all women who perceived experiences during childhood as CSA were included under this term.

Resilience was defined as an adaptive and dynamic process that develops and changes over time and involves two factors: 1) the protection of oneself from experiences of stress and adversity and 2) the demonstration of a capacity for positive emotions and beneficial experiences (Bonanno, 2004; Luthar, et al., 2000).

Post-traumatic growth referred to the experience of significant positive change in cognitive and emotional aspects of life after and as a result of struggling with a traumatic experience (Tedeschi & Calhoun, 1995; Tedeschi, et al., 1998a).

Wellness referred to a holistic and preventative approach to understanding human development and functioning. It is “a way of life oriented toward optimal health and well-being in which body, mind, and spirit are integrated by the individual to live more fully within the human and natural community” (Myers, et al., 2000, p. 252).

Organization of the Study

This dissertation is organized in five chapters. The first chapter presented an overview of the current status of research on adult women survivors of CSA and the constructs wellness, resilience, and PTG, and described the need for the study and the research questions. Chapter Two provides a detailed review of the literature on adult

women survivors of CSA, wellness, resilience, and PTG, further supporting the need for this study. Chapter Three presents the methodology of the study, including population and sample information, assessments, and statistical procedures. The results of the study are described in Chapter Four and finally, a discussion of these results is offered in Chapter Five, including limitations, implications for the counseling field, and suggestions for future research.

CHAPTER II

REVIEW OF RELATED LITERATURE

In chapter I, the rationale for a study of the lived experiences of adult women survivors of CSA, with particular attention to resiliency, PTG, and wellness, was presented. In this chapter, major findings from relevant CSA literature are discussed. This literature is presented with a focus on CSA outcomes in adult women survivors, and an emphasis on factors mediating the association between CSA and long-term mental health outcomes. Models of CSA recovery, including resiliency, post-traumatic growth (PTG), and wellness are discussed as important yet missing variables in models of survivorship, with a particular focus on these as factors and approaches that depathologize women survivors of CSA. The combination of these factors demonstrates a potential new approach for understanding variances in survivor outcomes.

Child Sexual Abuse

Children, those under the age of 18 (Thompson, Rudolph, & Henderson, 2004) comprise some 70.4 million persons in the United States, with slightly under/over half being females (Thompson, et al.). While they face a variety of normative developmental challenges similar to males, females disproportionately experience violence and victimization (Leverich, et al., 2002; Ouimette, et al., 2000; Pereda, et al., 2009; Sachs-Ericsson, et al., 2005; Scher, et al., 2004). Of significance are the staggering rates of child

sexual abuse (CSA): at least one in five women report a history of CSA (Bonomi, Cannon, Anderson, Rivara, & Thompson, 2008; Dennerstein, et al., 2004; Pereda, et al.; Risser, Hetzel-Riggin, Thomsen, & McCanne, 2006). Variations in reported prevalence rates are common in the literature, with multiple studies reporting that between one in five and one in two women have been victimized (Leverich, et al.; Ouimette, et al.; Pereda, et al.).

The short and long term effects, both physical and emotional, are significant, negative, and pervasive, making CSA a critical physical and mental health issue for a significant portion of women in the United States, and an important issue for counselors in terms of knowledge and competence for intervention or prevention efforts. In this section, the challenges associated with defining CSA are explored, with a working definition provided to guide the review of the literature that follows. Prevalence rates are examined and the long-term effects on survivors are analyzed. The need for greater attention to factors which mediate the negative impact of CSA is explored, particularly the need to depathologize this population and determine the factors, such as PTG, which mediate survivorship and affect holistic wellbeing or wellness.

Prevalence rates of CSA in adult women. In the past three decades, rates of reported CSA have varied considerably but remain consistently significant among adult women across varying samples (Briere, 2003; Pereda, et al., 2009; Risser, et al., 2006). Across studies, prevalence reports range from 2.8% to almost 50%, with higher rates of prevalence seen in clinical samples and lower rates seen in small, community-based samples (Bonomi, et al., 2008; Dennerstein, et al., 2004; Pereda, et al.; Risser, et al.).

Rates of CSA in samples of women are markedly higher than rates in samples of adult men. In the recent meta-analysis of prevalence rates of CSA, Pereda et al. (2009) reported that across 19 studies with a combined sample of 19,380, the mean prevalence rate for CSA in women in the United States was 25.3%, 2.5 times higher than the mean prevalence rate for men (7.5%; Pereda, et al.).

Although the collective reported CSA prevalence rates and significantly higher prevalence in woman than in men support the presence of a significant problem, variation among reported rates in samples of adult women is extreme. A key factor in research is sampling, and researchers' choice of sampling frame affects reported CSA prevalence rates (Wyatt & Peters, 1986b). The most common sampling frames for CSA research are clinical, college, and community or local (Jumper, 1995). Researchers have acknowledged that variations in reported prevalence rates occur due to differences across the sampling frames (Risser, et al., 2006; Wyatt & Peters), with the highest prevalence rates occurring in clinical samples. With rates of CSA among women in clinical settings typically falling between 30% and 50% (Cukor & McGinn, 2006; Leverich, et al., 2002; Ouimette, et al., 2000; Raj et al., 2008), reported prevalence rates in college students ranging from 10% to 50%, with most of the rates falling between 10 and 20% (Fitzgerald et al., 2008; Fortier et al., 2009; Kalra, 2006; Kenny & McEachern, 2000; Klanecky, Harrington, & McChargue, 2008; Pereda, et al., 2009), and rates in community or local samples varying from 16% to 44% (Casey, 2005; Duran, 2004; Kercher & McShane, 1984; Robin, Chester, Rasmussen, Jaranson, & Goldman, 1997; Romero, Wyatt, Loeb, Carmona, & Solis, 1999; Russell, 1993; Siegel, Sorenson, Golding, Burnam, & Stein,

1987; Wyatt, 1985; Wyatt, Loeb, Solis, Carmona, & Romero, 1999), counselors will likely work with women who are survivors of CSA.

Prevalence rates derived from research are at best close estimates of the actual prevalence of CSA. Retrospective reports in adulthood are likely to lead to false negatives but rarely result in false positives (Hardt & Rutter, 2004). Despite this, according to Kalra (2006), prevalence rates of CSA in retrospective studies have usually been assessed with self-report surveys of adults and as such, reported prevalence rates likely misrepresent the actual incidence of CSA among women because the nature of retrospective reporting lends to underreporting (Kalra; Shaffer, Huston, & Egeland, 2008). Nondisclosure of sexual crimes is common and continues to affect published prevalence rates (Dube, 2004; Foynes, Freyd, & DePrince, 2009; Hanson, Resnick, Saunders, Kilpatrick, & Best, 1999; Kim, Talbot, & Cicchetti, 2009; London, Bruck, Ceci, & Shuman, 2005; Widom & Morris, 1997). For example, according to Widom and Morris, in a study of retrospective self-report measures and documented sexual abuse cases, 33% of the women with documented cases of CSA did not report sexual abuse on the self-report measures. These results are suggestive of larger, more complex issues related to self-disclosure of CSA.

Survivors of CSA may choose not to disclose experiences for multiple reasons, including memory impairments (Dube, 2004; Foynes, et al., 2009; Goodman, Quas, & Ogle, 2010; Gordon & Connolly, 2010), emotional responses to sensitive or possibly taboo topics (Dube), fear of rejection or stigmatization (Dube; Farber, Khurgin-Bott, & Feldman, 2009; Finkelhor & Browne, 1985; Herman, 1997; Kellogg & Huston, 1995),

feelings of shame (Farber, et al., 2009; Follette, La Bash, & Sewell, 2010; Gordon & Connolly), patterns of experiential avoidance (Follette, et al.), and self-blame or guilt (Kellogg & Huston). Although an exhaustive review of factors contributing to nondisclosure is outside the scope of this review, it is clear that survivors choose, on many occasions and for many reasons, not to disclose their abuse.

Although the variations in prevalence rates make it challenging to identify the true depth of women affected by CSA, it is still clear that a significant portion of women have experienced this trauma in their lifetimes. Various factors affect prevalence rates, resulting in a fragmented picture of CSA prevalence in women. Sampling variation is common, and it is clear that underreporting of CSA is also common. Additional methodological issues contribute to the variations present in prevalence rates, including problems with definitions of child sexual abuse.

Definitions. One of the significant challenges in understanding the impact of CSA on women is the ambiguity associated with definitions of CSA. Issues with defining CSA have been consistent over time: more than 20 years ago, Finkelhor (1979) underscored the problems with the lack of a single agreed upon definition of CSA. Despite the awareness of this issue, there has been little progress in identifying a definition of CSA in the last three decades (Haugaard, 2000; Leonard, Iverson, & Follette, 2008; Paolucci, et al., 2001). The direct result of this lack of consensus is multi-faceted: research findings cannot be easily compared (Leonard, et al.) because as Mannon and Leitschuh (2002) noted, in their review of CSA methodological issues, inconsistent definitions and use of terminology have influenced both reported prevalence rates and the understanding of

symptom expression in CSA survivors. The primary variables included in definitions are (1) the age of the child, (2) the severity of abuse, which includes the type of abuse and the use of force or coercion, and (3) the nature of the relationship with the perpetrator (Ahmad, 2006; Goldman & Padayachi, 2000; Hunter, 2006; Jankowski, Leitenberg, Henning, & Coffey, 2002; Mannon & Leitschuh; Tromovitch & Rind, 2007). Although significant variability exists within these three groups of variables, together they constitute the fundamental components of the majority of definitions of CSA.

Each of the factors most commonly included in CSA definitions are presented in research with quite extreme variation, and often without any explanation by the researchers. For example, although the specific age range used to define “child” sets an important parameter for all studies of childhood abuse and survivorship, the delineation in age ranges is transient across studies (Goldman & Padayachi, 2000; Mannon & Leitschuh, 2002; Tromovitch & Rind, 2007). In the research on CSA, three categories of age range are present: children only, children and some adolescents; and all children and adolescents. The inclusion of multiple developmental levels when considering the effects of CSA is a major methodological challenge: it leads to findings not appropriately generalized to either population (Leonard & Follette, 2002; Tromovitch & Rind) and makes it difficult to determine if sexual abuse at various developmental stages affects individuals differently (Haugaard, 2000; Mannon & Leitschuh). According to several meta-analyses (see Arriola, Loudon, Doldren, & Fortenberry, 2005; Pereda, et al., 2009) and a review of 136 research articles on CSA used as resources in this literature review, as shown in Table 1, the age range most often included in the definition is children and

some adolescents (42%; an age cutoff between 14 and 17 years old). With the greatest percentage of women with a history of CSA reported it occurring between 12 and 17 years of age (Basile, Chen, Black, & Saltzman, 2007), it would be erroneous to exclude adolescents altogether from CSA outcome studies. Clearly, definitions which include age of onset of the abuse allow for the comparison of individual experiences across age ranges as opposed to combining the experiences of all survivors under the age of 18 (Basile, et al.; Dickinson, et al., 1999; Hulme & Agrawal, 2004; Leonard & Follette).

Table 1

Distribution of Age Limit Ranges in Definitions of CSA in 136 Research Articles

Age Category	Age Range	n	Percentage
Children only	0-13 years old	20	0.15
Children and some adolescents	14-17 years old	57	0.42
All children and adolescents	18 years old	21	0.15
Not Identified	N/A	38	0.28

Note: n = 136

As was true of the age variable, the severity of abuse variable has been difficult to quantify for purposes of comparison across studies. Major confounds include the personal experience of and meaning making relative to abuse (Herman, 1997; Leonard & Follette, 2002; Walker, Holman, & Busby, 2009), differing perceptions and interpretations relative to age of onset and cognitive-emotional understanding of the abuse (Bal, Crombez, De Bourdeaudhuij, & Van Oost, 2009; Bennett, Hughes, & Luke,

2000; Goldman & Padayachi, 2000; Mannon & Leitschuh, 2002; Tromovitch & Rind, 2007), and coping resources of the survivor, to name just a few (Aldwin & Levenson, 2004; Asberg, 2008; Bal, et al.; Banyard & Williams, 2007; Batten, et al., 2001; Bogar & Hulse-Killacky, 2006; Feinauer, Middleton, & Hilton, 2003; Filipas, 2006). The essential components of severity of abuse are three factors: type of sexual abuse, relationship to the perpetrator, and the use of force during sexual abuse (Banyard & Williams, 1996; Bennett, et al.; Fassler, Amodeo, Griffin, Clay, & Ellis, 2005; Fortier, et al., 2009; Merrill, Thomsen, Sinclair, Gold, & Milner, 2001; Ullman, 2007a).

Frequently, child sexual abuse is categorized by contact versus non-contact, with contact forms of CSA (touching, fondling, kissing, any type of attempted or completed intercourse, or any related sexual activity) seen as more invasive and thus more destructive than non-contact forms of CSA (exposure to pornography, photography of the child, exposure of genitals, or harassment) (Bennett, et al., 2000; Hulme & Agrawal, 2004; Ullman, 2007a). The aggregate of this information, plus the identity of the perpetrator and the presence or use of force, provide an understanding of severity: the more intrusive, forceful and the closer the relationship to the perpetrator, the greater the severity of abuse (Wylie, 2010). Although it appears useful to include all types of sexual abuse in definitions, this confounds reported prevalence rates: the inclusion of noncontact forms of sexual abuse had a direct effect on prevalence rates, increasing the reported prevalence rate significantly (Goldman & Padayachi, 2000; Mannon & Leitschuh, 2002; Tromovitch & Rind, 2007; Wyatt & Peters, 1986a).

Similar inconsistencies are present in outcome data on the relationship to the perpetrator. Some studies support the hypothesis that the closer the relationship to the perpetrator, the more significant the negative impact, (Briere & Elliott, 1994; Polusny & Follette, 1995), including that CSA committed by a family member contributes to a greater likelihood for adult mental and physical health problems (Bennett, et al., 2000; Fassler, et al., 2005; Hulme & Agrawal, 2004). However, as with the type of abuse, Paolucci et al. (2001) in their meta-analysis of n=37 studies, reported that the relationship of the perpetrator to the child did not mediate long-term negative outcomes. In contrast, it appears that the presence of force or coercion is consistently linked to greater negative outcomes (Ahmad, 2006; Banyard & Williams, 1996; Briere & Elliott; Hulme & Agrawal; Polusny & Follette; Ullman, 2007b). As a result of these findings, researchers often limit the definition of the sexual encounter to forced or coerced encounters, although including the use of “unwanted” to describe sexual encounters is common as well (Leserman, 2005).

As evident, a large range of definitions is possible and exists in the current research on CSA. Despite distinctly different approaches, reported commonalities exist in the criteria in definitions in the literature. However, these commonalities do not supersede the consequences of a significant lack of agreement seen in definitions of CSA. The result of such disparity is a varying and somewhat inconsistent picture of CSA prevalence (Mannon & Leitschuh, 2002; Tromovitch & Rind, 2007; Vogeltanz et al., 1999). Based on the results of multiple studies, a consensus definition of CSA is lacking; however, for the purposes of this review, the following common factors are evident: CSA

occurs when an adult or another individual engages a child or adolescent in unwanted sexual activity that may or may not be physical.

The lack of consistency in the literature in how CSA has been defined makes it challenging to understand both how often individuals are affected by CSA and to what degree CSA affects individuals. Without question, however CSA is an undeniable issue in many women's lives. In order to understand how fully CSA affects the lives of women survivors, a review of relevant research findings on long-term outcomes of CSA is warranted.

Long-term outcomes of CSA. Perhaps the most widely studied topics related to child sexual abuse are negative long-term health outcomes in adult women survivors. A quick search of child sexual abuse in journal articles in the primary psychological database, PsychInfo, confirms this: in the last thirty years, close to 3500 empirical articles on CSA were published. This research has produced a monumental amount of evidentiary support for the associations between CSA and negative long-term physical and mental health outcomes (Arriola, et al., 2005; Briere & Elliott, 1994; Browne & Finkelhor, 1986; J. Davis & Petretic-Jackson, 2000; Hunter, 2006; Jumper, 1995; Mannon & Leitschuh, 2002; Neumann, et al., 1996; Paolucci, et al., 2001; Polusny & Follette, 1995; Wegman & Stetler, 2009).

Physical health outcomes. Although outcome literature primarily focuses on the association between CSA and mental health outcomes, with only a small number of studies investigating physical health outcomes (Rich-Edwards et al., 2010), significant associations exist between a history of CSA and various adult negative physical health

outcomes. In a review of research on the provision of health care services to adult survivors of CSA, Havig (2008) reported that a common theme among the ten studies was that “survivors of child sexual abuse (CSA) as well as health care providers recognized the impact of childhood abuse on health and the health care experience...” (p. 20). The established effects of a CSA history on physical health outcomes include a greater number of physical health symptoms and disease, and lower health-related quality of life (Dickinson, et al., 1999; Havig; Hulme, 2000; Lundqvist, et al., 2004; Maniglio, 2009; Modestin, et al., 2005; Newman, et al., 2000). Several moderators of physical health outcomes have been identified, based on discrepant reports of physical health outcomes among CSA survivors.

Increased physical health symptoms. A greater number of physical health symptoms are one indicator of increased physical health problems reported in research on women CSA survivors. In a systematic review of reviews of CSA, Maniglio (2009) noted that a history of CSA was associated with chronic pelvic pain and an increased presence of non-epileptic seizures. Additionally, in a study comparing women with sexual and physical abuse histories, women who experienced only sexual abuse as a child had an increased prevalence of 9 of the 14 physical health symptoms measured, whereas women who experienced only physical abuse reported an increased prevalence in 7 of the 14 symptoms (Bonomi, et al., 2008). Health symptoms often experienced by CSA survivors include a greater number of symptoms related to gastrointestinal issues and pain, specifically abdominal pain, bloating, constipation, diarrhea, indigestion, vomiting, headache, sinus pain, migraine, and muscle pain (Newman, et al., 2000), as well as

somatization (Dickinson, et al., 1999; Lundqvist, et al., 2004; Modestin, et al., 2005; Walker et al., 1999). Physical health symptomatology among adult survivors of CSA appears consistent across age and ethnicity (Dickinson, et al.).

Increased symptom frequency. In addition to a greater number of symptoms, adult survivors of CSA are also likely to experience physical health symptoms with greater frequency (Walker, et al., 1999). For example, in a study of 395 women recruited from a family medicine practice clinic, Hulme (2000) reported that of 29 physical symptoms assessed in the women, those with CSA histories reported 22 of those symptoms more frequently than women with no history of CSA. Notably, the CSA survivors not only reported more frequency of symptoms but also were bothered more by the symptoms (Hulme). Adult survivors of CSA have reported greater frequency of nausea or stomach upset, stomach pain, eating too much, diarrhea, constipation, difficulty getting breath, soreness of muscles, feeling weak, hot or cold spells, dizziness, numbness, fatigue, insomnia, dyspareunia, temporomandibular joint (TMJ) pain, chest pain, headache, back pain, joint pain, premenstrual distress, sexual anhedonia, and anorgasmia (Hulme; Walker, et al.). Providing further evidence of the greater frequency are studies of chronic pain and pain symptoms (Finestone et al., 2000; Walker, et al.). An increased number and frequency of physical health symptoms in women survivors of CSA may be the result of disease, also seen more frequently in adult survivors.

Increased disease presence. The symptom numbers and frequency in adult survivors of CSA may present in conjunction with several different diseases. Despite the high level of somatization present in adult survivors of CSA, many of these symptoms

are related to specific diseases. Evidentiary support of a greater disease presence in adult survivors of CSA includes general findings related to healthcare diagnoses. For example, Walker et al. (1999), following a review of adult survivors' medical charts, indicated higher numbers of physician diagnoses compared to non-CSAs. Higher rates of documented outcomes in adult women survivors of CSA are evident with the following diseases: obesity (Alvarez, Pavao, Baumrind, & Kimerling, 2007; Trickett, Noll, & Putnam, 2011); Type 2 Diabetes (Rich-Edwards, et al., 2010); fibromyalgia (Finestone, et al., 2000); cardiovascular disease (Batten, Aslan, Maciejewski, & Mazure, 2004); and irritable bowel syndrome (IBS; Beesley, Jonathan, & Salmon, 2010; Kendall-Tackett, 2000; Ross, 2005; Salmon, Skaife, & Rhodes, 2003). A natural by-product of the increased physical health symptoms, increased frequency of health symptoms, and increased disease presence may be a poorer health-related quality of life.

Health-related quality of life. Experiencing more physical health problems, whether by experiencing more health symptoms more frequently or experiencing a higher rate of specific diseases, will likely affect a woman's quality of life. Specifically, adult women survivors of CSA are more likely to cut down on activities, miss work, and stay in bed due to increased health problems (Newman, et al., 2000), affecting overall quality of life. Areas of a survivor's life that are particularly associated with a history of CSA and that contribute to overall quality of life are energy, bodily pain, and role of physical pain (Dickinson, et al., 1999). Women reporting the most severe histories of CSA experienced significantly greater impairment in these and were significantly more impaired as assessed on a quality of life scale (Dickinson, et al.). Here, the level of

severity of abuse acted as a mediator between CSA and health-related quality of life.

Other mediating variables have been identified to clarify the association between CSA and adult physical health outcomes.

Mediators and moderators of physical health outcomes. Few of the studies on physical health outcomes in adult survivors of CSA provide information regarding possible mediating variables. However, despite the paucity of research, several key factors have emerged as mediating variables in the association between CSA and long-term physical health problems. Various characteristics related to coping appear to provide a buffer between CSA and the development of physical health problems in adulthood, whereas negative life factors in childhood appear to increase physical health problems.

Emerging from the literature are several positive factors that moderate the association between CSA and adult physical health outcomes. For example, Jonzon and Lindblad (2006), in their study of patterns of risk and protective factors, identified support and self-esteem as moderating variables between CSA and health outcomes. In contrast, factors contributing to worse health outcomes include depression (Newman, et al., 2000), greater abuse severity defined as sexual abuse involving contact or threat (Dickinson, et al., 1999; Hulme & Agrawal, 2004; Modestin, et al., 2005), and the experience of other forms of childhood maltreatment (Rodgers et al., 2004; Walker, et al., 1999).

Variables that mediate the relationship between CSA and physical health outcomes are not presented as clearly in the outcome research. Several researchers have reported that a history of CSA does not affect physical health outcomes, with potential

mediating variables possibly contributing to that lack of association. For example, in a sample of college students, Palm and Follette (2008) found that recent abuse experiences significantly affected current physical health whereas distal abuse experiences such as CSA did not. The authors also noted that it appeared current stress levels were more predictive of physical health distress (Palm & Follette). In two other studies similar findings were reported, with childhood physical maltreatment, and not CSA, clearly linked to physical health symptoms (Runtz, 2002; Tonmyr, Jamieson, Mery, & MacMillan, 2005). Potential issues with these findings include small sample sizes and limited representation of CSA survivors in the samples.

Summary. Although variation exists in reported physical health outcomes, a significant percentage of adult women survivors of CSA experience problematic physical health outcomes. Increased health problems result in more visits to health care professionals (Finestone, et al., 2000) and greater health-care costs (Hulme, 2000; Walker, et al., 1999) for adult survivors, thus producing a widespread effect on their lives. The physical health outcomes associated with a history of CSA in women include a greater number and frequency of physical health symptomatology, increased risk of specific diseases, and poorer health-related quality of life. Moderating the effect of CSA on physical health outcomes are high patterns of risk, low protective factors, support, self-esteem, and depressed mood. It also appears that the physical health outcomes in survivors of CSA may vary based on the type and severity of the CSA experiences. Similar to physical health outcomes, CSA survivors appear to have significant mental health outcomes related to the sexual abuse experiences.

Mental health outcomes. Traumatic experiences force individuals to find resources, from within themselves or from other sources, which may help them cope with the effects of the trauma (Mills & Turnbull, 2004). Survivors of child sexual abuse often face feelings of guilt, shame, despair, and loss of trust (Briere & Elliott, 1994; Browne & Finkelhor, 1986; J. Davis & Petretic-Jackson, 2000; Hunter, 2006; Jumper, 1995; Wylie, 2010). The methods by which they cope with these feelings can be cognitive-based, or behavioral, potentially harmful, or creative and healthy. Survivors may experience a wide range of health symptoms from general affective symptoms to psychiatric diagnoses (Arriola, et al., 2005; Briere & Elliott; Browne & Finkelhor; Hunter; Jumper; Mannon & Leitschuh, 2002; Neumann, et al., 1996; Paolucci, et al., 2001; Polusny & Follette, 1995). Environmental factors, including support, can mitigate the success or harm of certain coping strategies (Mills & Turnbull). The volume of research supporting the plethora of negative mental health outcomes in adult women survivors of CSA is considerable, with several key meta-analyses and literature reviews synthesizing this information (e.g. Briere & Elliott; Browne & Finkelhor; J. Davis & Petretic-Jackson; Jumper; Neumann, et al.; Paolucci, et al.).

Substantial quantitative and qualitative evidence from clinical, college, local, and national samples of women survivors support the associations between CSA and psychological distress, substance abuse, depression, anxiety, suicidal behavior, sexual functioning problems, relationship problems, and low self-esteem (Arriola, et al., 2005; Jumper, 1995; Neumann, et al., 1996; Paolucci, et al., 2001). Mental health symptoms associated with CSA include posttraumatic stress, suicidality, self-injury, obsessions and

compulsions, somatization, dissociation, anxiety, depression, sexual dysfunction, substance abuse, low self-esteem, self-blame, guilt, anger, helplessness and sleep impairment (Arriola, et al.; Briere & Elliott, 1994; Browne & Finkelhor, 1986; Hunter, 2006; Jumper; Mannon & Leitschuh, 2002; Neumann, et al.; Paolucci, et al.; Polusny & Follette, 1995). The sheer volume of outcome literature creates a challenge for individuals attempting to grasp the various outcomes possible for adult women survivors of CSA.

Using the same categories originally presented by Neumann et al. (1996) in a meta-analysis of CSA outcomes, the expansive psychological outcomes associated with CSA can be organized into five categories: affective, behavioral, identity/relational, other psychiatric sequelae, and general symptomatology. Affective symptoms refer to anxiety, depression, anger, and shame (Neumann, et al.), and are experiences reported by survivors frequently (Aspelmeier, Elliott, & Smith, 2007; Banyard, Williams, & Siegel, 2001), with survivors reporting high rates of depression and anxiety consistently (Jumper, 1995; Mannon & Leitschuh, 2002; Neumann, et al., 1996; Paolucci, et al., 2001). Behavioral symptoms that occur with some regularity in women survivors of CSA include disordered eating (Hund & Espelage, 2005; Wonderlich, Crosby, Mitchell, Thompson, Redlin, et al., 2001; Wonderlich et al., 2007), self-injury (Klonsky & Moyer, 2008), sexual problems including sexual risk taking (Batten, et al., 2001), substance use issues (Rodgers, et al., 2004), suicidality (Curtis, 2006; Zlotnick, Mattia, & Zimmerman, 2001) and revictimization (Arata, 2002; Classen, et al., 2001; Jankowski, et al., 2002; Risser, et al., 2006). Adult women survivors of CSA often experience negative outcomes

related to identity (Wonderlich, Crosby, Mitchell, Thompson, Smyth, et al., 2001) and relational symptoms including self-esteem, self-concept, problems relating to others (Aspelmeier, et al.; Classen, et al.; J. Davis & Petretic-Jackson, 2000; Dennerstein, et al., 2004; Mills & Turnbull, 2004), and sexual relationship issues (Ahmad, 2006; Dennerstein, et al., 2004; Mills & Turnbull, 2004).

The final major category of psychological outcomes possible in adult women survivors of CSA are psychiatric sequelae. Adult women survivors consistently reported dissociation (Aspelmeier, et al., 2007; Banyard, et al., 2001), obsessions and compulsions, somatization, and PTSD (Mills & Turnbull, 2004; Risser, et al., 2006; Ullman, 2007b; Zlotnick, et al., 2001) at higher levels than in the general population. These outcomes, organized into the above mentioned categories are presented in Table 2, along with the relevant meta-analyses and literature review support. When there are less than three relevant meta-analytic or literature review studies, additional recent studies supporting the symptom presence in adult survivors are included. With a monumental amount of evidence suggesting clear associations between CSA and these various psychological outcomes, it becomes important to review meta-analyses, which are considered in the next section.

Table 2

Meta-Analytic and Literature Review Support of Mental Health Outcomes in Adult Women Survivors of CSA

Symptom Category	Symptom	Research Support	
Affective	Depression	Paolucci, et al., 2001*	Polusny & Follette, 1995 ^a
		Jumper, 1995*	Hunter, 2006 ^a
	Anxiety	Neumann, et al., 1996*	Mannon & Leitschuh, 2002 ^a
		Briere & Elliott, 1994 ^a	
		Paolucci, et al., 2001*	Polusny & Follette, 1995 ^a
Self-Blame	Jumper, 1995*	Briere & Elliott, 1994 ^a	
	Neumann, et al., 1996*	Mannon & Leitschuh, 2002 ^a	
Behavioral	Guilt & Shame	Browne & Finkelhor, 1986 ^a	Leonard & Follette, 2002
		Coffey, et al., 1996	Eisenhower, 2001
	Frenkel, 2002		
Behavioral	Disordered eating	Browne & Finkelhor, 1986 ^a	Leonard & Follette, 2002
		Frenkel, 2002	Eisenhower, 2001
	Self-injury	Smolak & Murnen, 2002*	Polusny & Follette, 1995 ^a
		Briere & Elliott, 1994 ^a	
	Sexual problems	Klonsky & Moyer, 2008*	Paolucci, et al., 2001*
		Neumann, et al., 1996*	Polusny & Follette, 1995 ^a
	Substance abuse	Arriola, et al., 2005*	Maniglio, 2009 ^a
Neumann, et al., 1996*		Davis & Petretic-Jackson, 2000 ^a	
Suicidality	Neumann, et al., 1996*	Polusny & Follette, 1995 ^a	
	Hunter, 2006 ^a	Briere & Elliott, 1994 ^a	
Revictimization	Suicidality	Paolucci, et al., 2001*	Neumann, et al., 1996*
		Jumper, 1995*	Briere & Elliott, 1994 ^a
	Revictimization	Arriola, et al., 2005*	Arata, 2002*
Neumann, et al., 1996*		Messman-Moore & Long, 2003 ^a	
	Roodman & Clum, 2001*		

Table 2 (Cont)

Symptom Category	Symptom	Research Support	
Identity/ relational	Self-esteem	Paolucci, et al., 2001*	Mannon & Leitschuh, 2002 ^a
		Jumper, 1995*	Briere & Elliott, 1994 ^a
	Self-concept	Neumann, et al., 1996*	Murthi, et al., 2006
		Briere & Elliott, 1994 ^a	
	Sexual	Briere & Elliott, 1994 ^a	Davis & Petretic-Jackson, 2000 ^a
		Hunter, 2006 ^a	Leonard & Follette, 2002 ^a
General	Paolucci, et al., 2001*	Davis & Petretic-Jackson, 2000 ^a	
	Neumann, et al., 1996* Mannon & Leitschuh, 2002 ^a	Briere & Elliott, 1994 ^a	
Psychiatric	Dissociation	Paolucci, et al., 2001*	Briere & Elliott, 1994 ^a
		Jumper, 1995*	Polusny & Follette, 1995 ^a
		Neumann, et al., 1996*	Mannon & Leitschuh, 2002 ^a
	Somatization	Paolucci, et al., 2001*	Polusny & Follette, 1995 ^a
		Jumper, 1995*	
	PTSD	Paolucci, et al., 2001*	Mannon & Leitschuh, 2002 ^a
Neumann, et al., 1996*		Polusny & Follette, 1995 ^a	
Personality	Jumper, 1995*	Polusny & Follette, 1995 ^a	
	Maniglio, 2009 ^a		
Other	Read, et al., 2005 (psychoses, schizophrenia) ^a		

Note: * meta-analysis; ^a literature review

Meta-analyses of CSA outcomes. The value of the tremendous amount of outcome research on long-term effects of CSA is worthwhile only when these findings can be combined and reviewed in total (Lipsey & Wilson, 2001). The meta-analyses of outcome research do just that: it allows for the synthesis of materials such that a statistical standardization occurs, allowing for a more meaningful interpretation (Lipsey

& Wilson). The meta-analyses on CSA outcomes fall into three categories: multi-variable, including wide ranging outcomes (Jumper, 1995; Neumann, et al., 1996; Paolucci, et al., 2001); singularly focused, analyzing only the association between CSA and one long-term outcome (Klonsky & Moyer, 2008; Roodman & Clum, 2001; Smolak & Murnen, 2002), and non-supportive, reporting non-significant associations between CSA and long-term outcomes (Rind & Tromovitch, 1997; Rind, Tromovitch, & Bauserman, 1998).

Multi-variable meta-analysis. Three meta-analyses summarized multiple mental health outcomes of CSA and provided important information regarding effect sizes of these associations (Jumper, 1995; Neumann, et al., 1996; Paolucci, et al., 2001). Each of the meta-analyses stated three basic inclusion criteria: studies must focus on adult outcomes of CSA and must include a comparison group of individuals who had not experienced CSA, and outcomes must be based on empirical measures. The only meta-analysis to deviate from these requirements included one additional criterion, that sample sizes were at least 12 (Paolucci, et al.). The articles reviewed ranged in publication date from 1984 to 1991 (Jumper), 1979 to 1992 (Neumann, et al.), and 1976 to 1996 (Paolucci, et al.). The mental health outcomes analyzed in the three meta-analyses were general psychological symptomatology, depression, and self-esteem (Jumper); anger, anxiety, depression, revictimization, self-injury, sexual problems, substance use, suicidality, interpersonal problems, self-concept impairment, dissociation, somatization, and PTSD (Neumann, et al.); and PTSD, depression, suicide, sexual promiscuity, victim-perpetrator cycle, and academic performance (Paolucci, et al.). As can be seen in Table 3,

effect sizes for the outcomes represented in the three meta-analyses ranged from .16 to .67, supporting the notion that survivors of CSA have a small to moderate likelihood of experiencing a wide range of negative outcomes.

Table 3
Reported Effect Sizes of Three Meta-Analyses of CSA Outcome Symptomatology

Jumper, 1996 <i>n</i> = 6878		Neumann, et al. 1999 <i>n</i> =2774		Paolucci, et al., 2001 <i>n</i> = 25,367	
Outcome	Effect Size	Outcome	Effect Size	Outcome	Effect Size
General Psychological Symptomatology	0.27	Anxiety	0.4	Academic performance	0.19
		Anger	0.39	Victim-perpetrator cycle	0.16
		Depression	0.41		
Self-esteem	0.17	Suicidality	0.34	Depression	0.44
Depression	0.22	PTSD	0.52	Suicidality	0.44
		Revictimization	0.67	PTSD	0.4
		Self-injury	0.42	Sexual promiscuity	0.29
		Sexual problems	0.36		
		Substance abuse	0.41		
		Interpersonal problems	0.39		
		Self-concept	0.32		
		Dissociation	0.39		
		Somatization	0.34		

Note: All effect sizes listed were significant

Paolucci and authors (2001) computed the effect sizes in their meta-analysis using Glass's delta, while Neumann et al. (1996) used Hedges g , and Jumper (1995) used Pearson's r . Even with the difference in methodological approaches to computing effect size, the effect sizes are mostly consistent: although not high, the consistency of moderate effect sizes supports an association between CSA and long-term outcomes. Importantly, the small effect sizes are indicative of the strong likelihood that additional factors contribute to the development of various long-term mental health outcomes. Each set of authors approached this revelation by identifying potential moderating variables and analyzing their effects on the reported relationships. Two of the three meta-analyses referenced the same significant interaction effect: Jumper and Neumann et al. reported that sample type significantly affected effect sizes.

In the Jumper (1995) meta-analysis samples of college women had significantly lower effect sizes than community, clinical, and other samples and in the Neumann et al. (1996) meta-analysis effect sizes were significantly higher in clinical samples (+.50) and mixed samples (+.43) than in nonclinical samples (+.32). Likely Jumper's findings would change with the addition of current college samples: more than 10 years have passed since his analysis, with campuses today seeing increasing diversity over that time (Kadison, 2006) that may negate the significant difference in samples. Of the remaining factors identified as potential mediating or moderating variables - year of publication, type of statistic used, assessment method, sample age, locus of abuse (intrafamilial or mixed), gender, socioeconomic status, type of abuse reported, age of abuse, relation of

victim to perpetrator, and the number of abusive incidents did not affect the outcomes – none were significant.

Singularly focused meta-analyses. In addition to the three meta-analyses covering multiple outcome variables, several other meta-analyses investigated individual outcome variables. The outcome variables analyzed were eating disorders (Smolak & Murnen, 2002), self-injury (Klonsky & Moyer, 2008), and sexual revictimization (Roodman & Clum, 2001). Each of these reported at least small effect sizes for the association between CSA and the outcome variables. Relevant outcome information about moderating and mediating variables was reported also.

Smolak and Murnen (2002) analyzed 53 studies, and after noting the heterogeneity of the studies in the analysis, categorized studies into two groups: studies that compared sexually abused individuals with nonabused individuals on ED measures, and studies that compared eating-disordered individuals with controls on sexual abuse measures. In the first group, the mean effect size was $+.18$, moderated significantly by the particular measure used to define ED and the age of the participant. Again noting the extreme variability in effect sizes ($-.145$ to $+.42$), Smolak and Murnen analyzed potential moderating variables and found that sample composition significantly moderated the effect size. In samples where both groups (those with ED and control group) were from clinical populations, the control group had higher rates of CSA than the experimental group. Importantly, the control clinical samples were comprised of individuals with other psychological diagnoses. In contrast, with the non-clinical and mixed samples, 26.43% of

those in the eating-disordered groups reported CSA as compared to 13.74% of the control.

In the second outcome-specific meta-analysis, Klonsky and Moyer (2008) reviewed 45 studies on self-injury and identified several potential moderating variables in the association between CSA and self-injury. The mean effect size was $+0.23$, with a confidence interval from $.20$ to $.26$. Klonsky and Moyer analyzed age of sample, gender, and sample composition as potential moderators. The only one significantly affecting the effect size was the sample composition: effect size was significantly higher in clinical samples ($.24$) than in nonclinical samples ($.18$). Finally, Klonsky and Moyer noted that although they could not statistically aggregate studies that controlled for psychological risk factors and psychosocial variables, the studies that did so mostly reported non-significant associations between CSA and self-injurious behavior.

The final meta-analyses reviewed 19 studies related to sexual revictimization. Roodman and Clum (2001) reported a weighted by sample mean effect size of $.59$ across the 19 studies, suggestive of a moderate relationship between CSA and adult revictimization. The authors noted that significant variability in effect sizes existed both between and within sample groups, such that effect size was moderated by sample composition. Samples taken from college populations ($.49$) had significantly lower effect sizes than samples taken from other populations ($.70$). Roodman and Clum also investigated a number of relevant moderating variables, including age cutoff and definition specificity. The findings related to the age cutoff were supportive of previous studies: the effect size for cutoff did not significantly impact the effect size. However,

when adding in the mean age of the sample, the combination of the two resulted in a significant change in effect size; older age samples and older cutoffs had significantly larger effects. Similar to previous findings, Roodman and Clum reported that the effect sizes were significantly higher when contact was included in the definition.

Non-supportive meta-analyses. Despite the consistent evidence from the previous meta-analyses of a distinct effect of CSA on various long-term outcomes, several meta-analyses have reported non-significant effect sizes for long-term outcomes of CSA. Two meta-analyses fall into this category and both investigated the effect sizes of a wide range of outcomes (Rind & Tromovitch, 1997; Rind, et al., 1998). In the first of the two meta-analyses, Rind and Tromovitch analyzed seven studies based on national samples, and in the second meta-analysis, Rind et al. analyzed 59 studies of college samples. The primary finding from the first meta-analysis was an effect size of .10 for the outcome of psychological adjustment in adult women survivors of CSA. The authors concluded that CSA does not affect, either pervasively or negatively, all survivors (Rind & Tromovitch). In the second meta-analysis, the primary finding was an effect size of .09 for psychological adjustment, with effect sizes of specific symptom outcomes ranging from .04 (self-esteem) to .13 (anxiety; Rind, et al.). Moderators of the effect of these outcomes were consent, divided into two categories (willing and unwanted sex, and unwanted sex only), and gender. Unwanted sex and being female were associated significantly with poorer psychological adjustment.

The authors of both meta-analyses argued that blanket statements of CSA pervasiveness and the impact on long-term outcomes are incorrect, proven by their results (Rind & Tromovitch, 1997; Rind, et al., 1998). However, since the publication of these meta-analyses, many researchers have discounted these findings (e.g. Hyde, 2007; Spiegel, 2000), noting issues with methodology, including using only college samples in the Rind, et al. meta-analysis, and author assumptions. Although highly contested, the actual reported results are not significantly different from other meta-analyses and outcome research on CSA. Rather, unlike in the other articles, these authors conjectured that CSA does not pervasively affect victims and in fact may result in positive outcomes. This conjecture disregards significant research supporting the association between CSA and long-term outcomes, and the recognition by many researchers since (Colman & Widom, 2004; Dallam et al., 2001; Horwitz, Widom, McLaughlin, & White, 2001; Hunter, 2006; Putnam, 2003) that a tremendous number of variables interact to either contribute to resilience post-trauma, or to further complicate outcomes post-trauma.

Although valuable information is drawn from the aforementioned meta-analyses, the association between CSA and long-term outcomes still lacks clarity. The evidence clearly indicates that CSA is more common in clinical populations and clinical populations are more likely to experience negative mental health outcomes. In addition, at least a small portion of adult women in non-clinical samples experience problematic outcomes. Experiencing CSA may contribute, at least partially, to a large list of psychological outcomes and this relationship appears significantly affected by additional factors. Several of the meta-analyses highlighted potential factors contributing to the

variations in outcomes, however far more moderating and mediating variables have been identified and investigated.

Mediators and moderators. As individuals make sense of the traumatic experience of child sexual abuse, a variety of factors may contribute to how each individual copes with that trauma. Survivors of CSA may experience no negative symptoms, significant impairment, or any variation between (J. Davis & Petretic-Jackson, 2000; Hyde, 2007; Ulrich, 2007). One explanation for the significant heterogeneity in psychological outcomes of adult women survivors of CSA is that various factors moderate or mediate this association. A pattern of characteristics emerge in the literature with two sets of factors contributing to outcomes: contextual factors and survivor specific characteristics (J. Davis & Petretic-Jackson).

Often the experience of child sexual abuse is an additional layer in an already problematic environment. Survivors of child sexual abuse may have previously experienced or concurrently experienced physical and emotional abuse (Hunter, 2006). They may have had a parent with a substance use disorder, or divorced parents, or a disrupted attachment with one or both of their parents (Bennett, et al., 2000; Hunter; Turner, Finkelhor, & Ormrod, 2007; Vogeltanz, et al., 1999). If the survivors disclosed the sexual abuse to family members, they may have received no support or even rejection (Bennett, et al., 2000; Curtis, 2006; Ullman, 2007b). Experiences like these are often associated with greater problematic outcomes. Of these, concurrent forms of childhood maltreatment appear the most damaging for CSA survivors, with a dose-response relationship existing between the number of types of maltreatment experienced and

psychological outcomes (Banyard, Williams, Saunders, & Fitzgerald, 2008; Banyard, et al., 2001; Briere & Jordan, 2009; Carlson, McNutt, & Choi, 2003; Dennerstein, et al., 2004; Edwards, Holden, Felitti, & Anda, 2003; Hunter, 2006). Other factors related to family characteristics are less consistent in outcome research: some authors reported supportive findings for a strong influence (Eisenhower, 2001) while the others reported no effects from family-related factors when these were controlled for in statistical analyses (Nelson & Wampler, 2002; Paolucci, et al., 2001).

In addition to family-related characteristics, survivors of child sexual abuse may be affected by specific aspects of the abuse. Close relationships with abusers can result in a greater negative impact, as the child (and subsequently, the adult) survivor must reconcile this betrayal (Finkelhor & Browne, 1985; Herman, 1997). Outcome data appears to support this assertion (Briere & Elliott, 1994; Fassler, et al., 2005; Polusny & Follette, 1995): specifically, CSA committed by a family member contributes to a greater likelihood for adult mental and physical health problems (Bennett, et al., 2000; Fassler, et al.; Hulme & Agrawal, 2004). A number of have also hypothesized that other characteristics of the abusive experience may be detrimental including the level of force used during the abuse, the level of intrusiveness of the experience, the level of violence associated with the abuse, and the age of the child at the time of the abuse (e.g. Curtis, 2006; Hunter, 2006; Mills & Turnbull, 2004). Comparable with the family-related factors, these experiences have incongruent support.

In some studies, more invasive forms of sexual abuse (Bennett, et al., 2000; Hulme & Agrawal, 2004; Ullman, 2007b) and the use of force or coercion (Ahmad,

2006; Banyard & Williams, 1996; Briere & Elliott, 1994; Hulme & Agrawal, 2004; Polusny & Follette, 1995; Ullman, 2007b) have been linked to more severe and pervasive outcomes. However, not all reported outcomes support this assertion. According to a meta-analysis of 37 empirical research studies of long-term outcomes of CSA, Paolucci and authors (2001) reported that the type of abuse did not significantly mediate the relationship between CSA and multiple negative outcomes. Additional major confounds to the previous assumptions include the personal experience of and meaning making relative to abuse (Herman, 1997; Leonard & Follette, 2002; Walker, et al., 2009), differing perceptions and interpretations relative to age of onset and cognitive-emotional understanding of the abuse (Bal, et al., 2009; Bennett, et al.; Goldman & Padayachi, 2000; Mannon & Leitschuh, 2002; Tromovitch & Rind, 2007), and coping resources of the survivor, to name just a few (Aldwin & Levenson, 2004; Asberg, 2008; Bal, et al.; Banyard & Williams, 2007; Batten, et al., 2001; Bogar & Hulse-Killacky, 2006; Feinauer, et al., 2003; Filipas, 2006).

How an individual copes with trauma depends on personal characteristics and many of these characteristics have been the focus of research on mediating variables of CSA. One major focus in this area of research has been on how an individual thinks and feels about the CSA experience or experiences. A common strategy for dealing with the thoughts or feelings about abusive experiences is avoidance coping. Avoidance, in the form of dissociation or general coping, of the thoughts or feelings associated with CSA has been linked to increased psychological distress in adult survivors (Asberg, 2008; Aspelmeier, et al., 2007; Banyard, et al., 2001; Batten, et al., 2001; Brewerton, 2007;

Merrill, et al., 2001; Mills & Turnbull, 2004). Avoidance strategies are also key factors in the diagnosis of PTSD (American Psychiatric Association, 2000), the most common diagnosis among adult women survivors of CSA and one that contributes to greater psychological distress (Arata, 2002; Mannon & Leitschuh, 2002; Neumann, et al., 1996; Paolucci, et al., 2001; Polusny & Follette, 1995; Risser, et al., 2006; Ullman, Filipas, Townsend, & Starzynski, 2007). In addition to avoidance strategies, reactions to CSA that include high levels of self-blame and stronger feelings of stigmatization and shame also tend to contribute to greater psychological distress in adulthood (Arata; Coffey, Leitenberg, Henning, Turner, & Bennett, 1996; Cukor & McGinn, 2006; Eisenhower, 2001; Feiring, Taska, & Lewis, 2002; Lev-Wiesel, 2000).

How any one survivor of CSA is affected by her experience is based on the culmination of a tremendous number of factors. With the potential for such great variation between survivors, it is clear why the research in this area remains scattered. The singular focus in the literature is on the psychological disease outcomes, and the factors that perpetuate these outcomes. Despite this continued focus on negative outcomes, the aforementioned outcome research clearly indicates that some women, for various reasons, do not experience long-lasting negative outcomes. Leading authors in trauma research have argued the need for a wellness focus with an emphasis on early prevention and early intervention (Friedman, Resick, & Keane, 2007; Layne, et al., 2009; Masten, 2007; Silva & Kessler, 2004). Layne et al. articulated the two key areas of knowledge necessary for a wellness orientation to trauma research:

These are, first, the causal pathways through which traumatic stress may lead to persisting severe posttraumatic distress, dysfunction, and developmental derailment, and second, the causal pathways through which adaptive (i.e. resistant and resilient) trajectories of posttraumatic adjustment are promoted and sustained. (p. 14)

Yet, investigations into the differential experiences of survivors of CSA, and the processes that comprise these experiences, have remained largely untouched despite the clear shift in trauma research that has occurred in the last five to ten years (Friedman, et al., 2007).

Alternate Forms of Adjustment

As established in the previous sections, the primary focus of research with adult women survivors of CSA has been on outcomes involving psychological distress and dysfunction. This focus implies that understanding this particular trajectory of adjustment is foremost to the understanding and implantation of interventions. However, according to Layne et al. (2009), a trajectory resulting in persistent distress is only one of several potential trajectories. Other potential trajectories include pathways of wellness, stress resistance, resilience, posttraumatic growth, protracted recovery, and stable maladaptive functioning (Layne, et al.). Initial empirical support for differential trajectories was reported in a study by Thomas and Hall (2008) who identified three trajectories in 27 adult women survivors of childhood abuse: a steady upward progress pattern, with some setbacks along the way; a roller-coaster pattern, with many early setbacks and later upward progress; and finally a struggler pattern, with many setbacks and little progress (Thomas & Hall). These findings lend credence to the idea of differential trajectories of

adjustment in general however the inclusion of survivors of all forms of childhood abuse in the Thomas and Hall study result in limited applicability to adult women survivors of CSA.

The concept of differential trajectories is often missing from the discourse on CSA in particular and with all trauma experiences in general (Bonanno & Mancini, 2010). An understanding of these processes is necessary for counselors working with CSA survivors because, as evidenced by the aforementioned review, not all survivors will present to therapy with diagnosable psychological conditions (Briere & Elliott, 1994; J. Davis & Petretic-Jackson, 2000; Herman, 1997; Hunter, 2006). Based on the literature, the potential for positive outcomes indeed exists, suggesting the possibility of intentional interventions to facilitate such outcomes. For counselors to develop effective interventions, an understanding of positive outcomes of CSA and models for predicting such outcomes is needed. Although few investigations have looked into these trajectories in adult survivors of CSA, results from trauma research in general, and the few specific investigations of CSA survivors, provide a basis for further investigation of healing trajectories in survivors. Specifically, results from studies of wellness, resilience, and post-traumatic growth can inform our understanding of differential trajectories in adult women survivors of CSA.

Wellness. Wellness, in contrast to the current medical-model approach, represents a unique way of conceptualizing and counseling individuals. With a focus on the influence of development, as well as gender, wellness approaches provide a “holistic, strengths-based perspective to understanding human behavior and motivation” (Hartwig,

2003, p. 34). Originating from a need to conceptualize health as more than the absence of disease, wellness is gained through a complex process whereby individuals strive for the maximization of their own potential (Harari, et al., 2005). The concept of wellness covers both mental and physical aspects, and as a result has found applicability in a multitude of disciplines.

The term wellness was initially coined by Dunn (1961), a physician interested in conceptualizing positive health, who described wellness as “an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable” (p. 4). Since the origination of the term, many authors from varying professions have defined wellness as “a multifaceted concept that integrates signs of well-being with the ability to function well” (Schueller, 2009) and a construct with elements including “behavioral markers, such as eating, sleeping, and working well..., having effective interpersonal relationships, and mastering age- and ability-appropriate tasks, and psychological markers, such as having a sense of belongingness and purpose, control over one’s fate, and satisfaction with oneself and one’s existence” (Cowen, 1994, p. 152), for example. In the most prominent model of wellness in the counseling profession, the Indivisible Self model (Myers & Sweeney, 2004), an empirical model based originally on the theoretical Wheel of Wellness model (Myers, et al., 2000; Sweeney & Witmer, 1991; Witmer & Sweeney, 1992) wellness was defined as “a way of life oriented toward optimal health and well-being in which body, mind, and spirit are integrated by the individual to live more fully within the human and natural community” (Myers, et al., 2000, p. 252).

Although a number of definitions exist, consistent themes emerge with the majority of theorists agreeing that wellness is multidimensional and integrative, is based on a continuum, is not simply the absence of illness, and is holistic in nature (Roscoe, 2009). Once defined, the complexity of wellness warranted the development of models to describe the processes and factors involved. Historically, the emphasis of wellness models has been the prevention of illness and the extension of life. Building upon these, is an integrative wellness model, The Indivisible Self (IS-Wel; Hattie, et al., 2004; Myers, Luecht, & Sweeney, 2004; Myers & Sweeney, 2004, 2005c; Myers, et al., 2000). Widely considered the most comprehensive model of wellness (Clark, 2006; Hermon & Hazler, 1999), Myers & Sweeney's IS-WEL was developed through empirical findings based on studies using the theoretical Wheel model (Witmer & Sweeney, 1992) and proposes an extensive range of factors that contribute to wellness (Myers & Sweeney, 2005b, 2008b; Myers, et al., 2000).

The Indivisible Self model. The IS-WEL model is an empirically developed model based on the theoretical circumplex Wheel of Wellness model, derived from counseling and development theory and introduced in the early 90's (Myers & Sweeney, 2004). Based on Individual psychology principles, this theoretical model incorporated wellness characteristics organized around Adler's three major life tasks of work, friendship, and love, and included the tasks of spirit and self, contributed by Mosak and Dreikurs (Sweeney & Witmer, 1991). Empirical evidence was initially supportive of the components of the Wheel of Wellness model, but a recent factor structure analysis suggested a different pattern of interactions. The outcomes of this factor analysis

supported a model with one higher order factor and five subfactors (Hattie, et al., 2004). In this model, a higher order wellness factor, the Indivisible Self, contributes to every aspect of wellness, and supports the idea of holistic human behavior (Myers & Sweeney, 2004), consistent with Adlerian theory on which the original Wheel of Wellness model was based. The five subfactors are identified as equal components of the Indivisible Self: the Creative Self, Coping Self, Social Self, Essential Self, and Physical Self (Hattie, et al.). Each of the five parts of the Indivisible Self are comprised of unique subfactors, with the model identifying a total of 17 subfactors (Myers & Sweeney, 2004). The 17 subfactors were originally hypothesized based on theoretical and empirical reviews of research in the fields of psychology, anthropology, sociology, religion, education, and behavioral medicine (Witmer & Sweeney, 1992), and since, each of the subfactors has been supported both in the analysis of the model (Hattie, et al., 2004), and as individual factors of wellness (Myers & Sweeney, 2004, 2005b; Myers, et al., 2000).

The Creative Self. The combination of specific characteristics that make individuals unique is the Creative self (Myers & Sweeney, 2004). Five components contribute to the Creative self: Thinking, Emotions, Control, Positive Humor, and Work. As one's thoughts contribute to their emotions, so do their emotions contribute to their thoughts. Various aspects of control, or the ability to influence aspects of one's life, also contribute to outcomes of wellness. Positive humor can mitigate negative situations, just as work is an essential experience for individuals. Cognitive and emotional responses to CSA have been the focus of numerous studies, as well as models of coping related to child maltreatment in general, and CSA specifically (Briere & Elliott, 1994; Cohen,

2008; Cukor & McGinn, 2006; Kendall-Tackett, 2002; Morrissette, 1999; Oaksford & Frude, 2003). The influence of humor and work have not explicitly been studied in adult survivors of CSA whereas, locus of control, as it relates to how individual survivors make meaning out of their abuse, has been identified as a contributor to improved outcomes in adult survivors of CSA (M. Friedman, 2007; Phanichrat & Townshend, 2010).

The Essential Self. The four subfactors that comprise the Essential Self are aspects that contribute to the facilitation of meaning in life and include Spirituality, Self-care, Gender Identity, and Cultural Identity. Spirituality refers to one's "existential sense of meaning, purpose, and hopefulness toward life" (Myers & Sweeney, 2004, p. 273). Evidence strongly supports the connection between aspects of spirituality, including positive thoughts, hardiness, self-efficacy, and optimism, with general well-being and the ability to resist stress (Myers, et al., 2000). Gender and cultural identity are essential factors in life and influence how we view others and how others view us. How individuals care for themselves, in an effort to prolong health, is also a critical component of the Essential self. Findings reported from empirical studies of spirituality and CSA survivors supports the meaningfulness and helpfulness of spirituality and spirituality coping (Gall, 2006; Gall, Basque, Damasceno-Scott, & Vardy, 2007). Cultural differences exist among survivors of CSA, but little attention has been paid to the contributions of cultural identity to outcomes, rather, most literature simply compares the prevalence rates among different races and cultural groups. With little outcome data on the effects of CSA on men, the comparison of gender identity and CSA has yet to be a main focus of research.

The Coping Self. Four components contribute to an individual's ability to cope and then transcend negative experiences. The components of the Coping self are Realistic Beliefs, Stress Management, Self-Worth, and Leisure. These are the essential pieces that help an individual cope and then transcend beyond negative life events. Key aspects of coping are the ability to maintain appropriate situation-specific thought processes because of the negative impact irrational thoughts can have on an individuals' ability to cope. The ability to manage stress can facilitate those times when irrational beliefs pervade or can contribute to make negative life experiences less impactful. Self-worth both contributes to one's stress management and realistic beliefs, and is affected by successful coping with negative experiences through stress management and a focus on realistic beliefs. Finally, leisure opportunities may provide stress relief, contributing to wellness in the other areas. Challenges with realistic beliefs and self-worth are common for adult survivors of CSA (Briere & Jordan, 2009; Fortier, et al., 2009; Johnson, Sheahan, & Chard, 2003; Murthi, 2006), while less focus has been given to coping strategies such as stress management and leisure activities.

The Social Self. The Social self includes only two parts, Friendship and Love, which are described as existing on a continuum. The primary premise of these two characteristics is that social intimacy, regardless of how it falls on the continuum, provides essential experiences for individuals, contributing to an increase in overall quality of life. Without social intimacy, individuals are more likely to experience problematic health outcomes, including poorer health (Myers & Sweeney, 2004). Clear empirical data supports the relationship between CSA and relationship-related problems

(Banyard & Williams, 2007; Classen, et al., 2001; J. Davis & Petretic-Jackson, 2000; Lemieux & Byers, 2008; Leonard, et al., 2008; Loeb et al., 2002; Murthi & Espelage, 2005), while several studies validated the connection between positive social support and improved outcomes (Asberg, 2008; Bogar & Hulse-Killacky, 2006; Hyman, Gold, & Cott, 2003; Oaksford & Frude, 2003; Phanichrat & Townshend, 2010).

The Physical Self. The last of the components of the Indivisible Self include all biological and physiological processes of human functioning. Aspects of the Physical self are Exercise and Nutrition, both highly related to longer and healthier lives. Although outcome literature primarily focuses on the association between CSA and mental health outcomes, with only a small number of studies investigating physical health outcomes (Rich-Edwards, et al., 2010), significant associations exist between a history of CSA and various adult physical health problems including a greater number of physical health symptoms and disease, and lower health-related quality of life (Dickinson, et al., 1999; Havig, 2008; Hulme, 2000; Lundqvist, et al., 2004; Maniglio, 2009; Modestin, et al., 2005; Newman, et al., 2000).

Contextual elements. Necessary for a complete understanding of wellness are contextual elements including local, institutional, global, and chronometrical factors. Local contexts that may affect wellness include family and communities, while institutional contexts may be related to education or government. Global events are also likely to affect wellness, just as the cumulative power of behaviors and decisions across the lifespan will exert affects (Myers & Sweeney, 2004). The contextual elements provide the foundation from which the various aspects of the Indivisible Self intertwine.

The IS-WEL model has been applied to use in various samples and evidentiary support over the past two decades has indicated its continued applicability (Myers & Sweeney, 2008b).

The IS-WEL model provides a holistic, expansive description of the developmental processes involved in wellness. The applicability of such a comprehensive model is two-fold: the model provides a way for understanding levels of wellness and a way for intervening to increase wellness. An abundance of research, reported by Myers and Sweeney (2008b), has been conducted on wellness in multiple populations, including undergraduate and graduate level college students (Choate & Smith, 2003; Gibson & Myers, 2006; Lewis & Myers, 2010; Myers & Bechtel, 2004; Myers & Mobley, 2004; Myers, Mobley, & Booth, 2003; Myers & Williard, 2003; Sinclair & Myers, 2004; Smith, Robinson, & Young, 2007), employed adults (Lawson & Myers, 2011; Powers, Myers, Tingle, & Powers, 2004), adolescent female delinquents (Hartwig & Myers, 2003), low-income rural women (Gill, Barrio Minton, & Myers, 2010), headache patients (Degges-White, Myers, Adelman, & Pastoor, 2003), and women in midlife (Degges-White & Myers, 2006).

Evidentiary support of the IS-WEL model. The IS-WEL model of wellness has demonstrated applicability in a wide range of samples. Since its inception, the IS-WEL model has described individuals' experiences with wellness, as measured by the 5F-Wel. The 5F-Wel and the IS-WEL model have both undergone significant analysis and review over the past two decades, the results of which indicate a well-developed and extremely applicable model of wellness. Wellness in adults has been assessed across a variety of

samples, providing valuable information about wellness in adults and wellness as a counseling intervention.

The results of these studies suggest that as individuals age and engage in relationships like marriage, for most, the Love and Relationship factors of wellness remain higher than other aspects of wellness (Powers, et al., 2004). However, for some, Self-Care emerges as just as high or higher (Powers, et al.). In addition, it appears that for adults there is a positive correlation between job satisfaction and mattering, and job satisfaction and wellness, as well as between wellness and mattering. Connolly and Myers (2003) reported that the results of a regression analysis of 82 employees' wellness, mattering, and job satisfaction indicated that wellness and mattering significantly contributed to the variance in job satisfaction but when age and job tenure were controlled for, this significance disappeared. These results indicate that wellness is a contributing factor to job satisfaction in certain circumstances but further research is necessary to bring clarity to this relationship.

Researchers have identified several health factors that have an inverse relationship with wellness in adults. For example, Degges-White, Myers, Adelman, and Pastoor (2003), with a sample of 60 headache sufferers, reported that Total Wellness scores were significantly lower than the norm group. These authors provided further clarification to the relationship between wellness and stress when they reported that significant inverse relationships were witnessed between Total Wellness and perceived stress as measured by the Perceived Stress Scale (PSS), and between Stress Management and perceived stress (Degges-White, et al.). Despite the implicit relationship between wellness and

health, no other studies have looked at the relationship between various health factors and wellness as measured by the 5F-Wel.

Gender differences in wellness. Where the IS-WEL outperforms other models is in its attention to differences in gender, life-span development, and external forces (Myers & Sweeney, 2008b). Specifically relevant to adult women survivors of CSA are the gender differences in wellness experiences. A number of studies on adult wellness have highlighted results that indicate significant differences in the experiences of wellness for women and men.

In an early review of wellness literature, Crose and others (1992) reported significant gender differences in wellness, and specifically in “biological well-being, in diagnosis and treatment of physical and mental disorders, in multiple-role stress, in vocational patterns, in economic resources, in social support networks, and in spiritual well-being” (p.151). According to their review, women are more likely to experience longer treatment times, receive a mental disorder diagnosis, be prescribed psychotropic medication, experience stress around relationship and family responsibilities, and experience the benefits of social support (Crose, et al., 1992). Recent studies of gender differences in wellness have reported similar findings, while noting the need for further focus on wellness differences based on gender (Dew & Newton, 2005; Myers & Bechtel, 2004; Myers & Mobley, 2004; Myers, et al., 2003).

In their overview of wellness and gender, Dew and Newton (2005) reported that recent wellness research has shed light on gender differences but no research to date had specifically investigated wellness and various aspects of gender identity. In several

studies of wellness in undergraduate and graduate students (Myers & Mobley, 2004; Myers, et al., 2003), no gender differences emerged as a whole, but differences were present in 10 of the second and third order factors in the IS-WEL model: women's wellness was higher on the Essential Self as a whole, and love, from the Social self, whereas men were higher in Physical self and Coping self. Since the review by Dew and Newton (2005), two empirical studies investigated wellness in adult women. Degges-White and Myers (2006) examined the relationships between wellness, life satisfaction, and midlife transitions in 224 adult women, 70% of whom reported household incomes above \$40,000, and reported that income was positively associated with life satisfaction scores but not wellness, whereas age group was positively associated with Total Wellness ($F = 4.84, p < .05$), when controlling for income. The authors concluded that life satisfaction and wellness may be affected more by mitigating factors like financial resources or support networks rather than life changes and transitions.

Gill, Barrio-Minton, and Myers (2010) measured religiosity, spirituality, coping strategies and wellness in low-income, rural women. The authors reported that Total Wellness was significantly associated with all of the subscales on both the measure of spirituality (SAS) and the measure of religiosity (BMMRS), with a pattern of higher correlations for the SAS subscales and wellness. Using an all-possible-subsets regression, the authors identified the following three subscales as those that contributed to the most variance in wellness scores ($R^2 = .42$): the SAS Purpose and Meaning in Life subscale, the SAS Unifying Interconnectedness subscale, and the BMMRS Private Religious Practices subscale. The authors concluded that for poor, rural women, spirituality may

relate more to wellness than religiosity and that differences are not based on race/ethnicity.

The preliminary research on wellness and women seems to indicate that women may be more prone to lower wellness in valuable areas such as coping while they may experience higher areas of wellness in areas of love, and aspects of the Essential self. Further, it appears that specific spirituality or religiosity factors may affect wellness. These findings as they relate to women and wellness may not hold true for adult women survivors of CSA, especially given outcome data that suggests survivors struggle with relationships; however, these results may support the need for interventions based on interpersonal skills and relationship building as a means to increase wellness. One additional prominent feature of the IS-WEL model is its applicability in therapeutic settings.

Application of the IS-WEL model. Implicit in the IS-WEL model is the focus on personal choice and responsibility (Hodges & Myers, 2010) which are integrated with the main tenants of the IS-WEL model in a therapeutic intervention first outlined by Myers and Sweeney (2004). The premises of the four-step wellness intervention are a focus on small choices, the reinforcement of those choices, and the resulting cumulative effects of the choices (Hodges & Myers). The four steps of the IS-WEL intervention are (1) introduction of the wellness model; (2) formal and informal assessment of its components; (3) one or two intentional interventions to enhance wellness; and (4) evaluation, follow-up, and cycling back through the steps when necessary (Myers & Sweeney, 2005c). The strengths of this approach are its focus on changeable aspects of an

individual's life, with emphasis on the individual's choice, and the use of a validated, empirical assessment tool within the intervention process. Although several authors have proposed hypothetical case examples of this intervention (see Hodges & Myers, 2010; Myers & Sweeney, 2004), only one study has integrated the concepts of the IS-WEL model into practice (Tanigoshi, Kontos, & Remley, 2008).

Tanigoshi, et al. (2008) studied the application of the IS-WEL across 5 counseling sessions with 21 law enforcement officers in southern Louisiana. A control group was used to allow for comparison and the authors that the wellness counseling had a significant effect on increasing the officers Total Wellness between the pre and post-tests ($F = 11.76, p = .001$) whereas individuals in the control group did not experience significant positive changes in their wellness scores. Important additional findings reported by the authors included no significant difference on wellness scores between officers with high or low self-efficacy as measured by a single-item scale (from 0% to 100%, how confident are you in your ability to improve your current level of wellness?) and no significant relationship between stage of readiness to change and wellness. These authors concluded that wellness interventions in counseling may produce positive changes in wellness but that the process needs further clarification because of a small sample size and a lack of a placebo group.

These findings are supportive of Myers and Sweeney (2005b) application of the IS-WEL model to counseling and educational settings. Clearly, such interventions could prove beneficial to clients and students. However, continued research on this application

is necessary to fully comprehend how a wellness intervention based on the IS-WEL can improve individual's overall wellness and other aspects of life.

Summary. Built on decades of interdisciplinary research, the IS-WEL model identifies 17 primary Factors involved in wellness that are organized into five areas of the Self which finally contribute to one higher order Indivisible Self. The inclusion of a valuable focus on gender and cultural differences, contextual factors, and holistic functioning, make this model particularly salient to the understanding of adult women survivors of CSA. Although the IS-WEL model is supported by strong empirical evidence, no studies have looked at wellness in CSA survivors. In addition, it is unclear if or how women move through specific processes in order to become well after the traumatic experience of CSA. A discourse on this question of what processes facilitate the development of wellness surfaced in the last decade in general trauma research, and although little has been applied to adult women survivors of CSA, an understanding of the literature on other trajectories of adjustment, including resilience, may facilitate an understanding of these processes in women survivors of CSA.

Resilience. Following a traumatic experience like CSA, the process of survival may be wrought with problems but also may be an opportunity for the demonstration of differential developmental processes such as resilience. Multiple factors contribute to the ability of a survivor of CSA to experience distress after such a trauma and the same is true for the experience of resilience (Bogar & Hulse-Killacky, 2006; Collishaw, et al., 2007; Edmond, et al., 2006; A. Friedman, 2007; Ligiéro, et al., 2009; Menna, 2008; Singleton, 2004; Thomas & Hall, 2008; Valentine & Feinauer, 1993; Walsh, Blaustein,

Knight, Spinazzola, & van der Kolk, 2007). However, resilience is not the antithesis to the experience of negative outcomes; rather, resilience in one area of life can occur as problems are experienced in other areas (Rutter, 2007). In addition, resilience is not a static process but a dynamic, shifting process that changes based on many factors (Bonanno, 2004; Rutter). The nature of resilience makes it a challenge to study but several authors have contributed to the understanding of resilience in general and specifically with CSA survivors. Defining resilience is necessary to the understanding and interpretability of these findings.

Definitions of resilience. The study of resilience originated with research on children, and then shifted to include adults' resilience in relation to health-related issues such as cancer and other topics such as loss (Bonanno, 2008; A. Friedman, 2007; Luthar, et al., 2000). With wide-ranging target populations and life experiences, definitions of resilience have naturally varied depending on the type of research, theoretical positions, and field of study (A. Friedman). The initial conflict in definitions arose between authors who defined resilience as a stagnant characteristic and those who defined resilience as a set of processes or determinants (Luthar, et al.). However, as research in the area evolved, the focus on the developmental nature of resilience grew such that resilience as a process gained consensus among researchers (Luthar, et al.). Despite this, issues with definitions of resilience continue, but as with definitions of CSA commonalities among definitions allow for progress in resilience research.

The operationalization of resilience varies across studies based on adversity conditions, the conceptualization of positive adjustment, and the manner by which these factors are assessed. Regardless of these differences, construct validity remains strong, evidenced by the emergence of common themes across studies (Luthar, et al., 2000), most likely the result of only subtle differences between definitions. For example, in a review of the construct, Luthar et al. (2000) defined resilience as “a dynamic process encompassing positive adaptation in the context of significant adversity” (p. 543). Similarly, in a study on adult survivors of CSA, Bogar and Hulse-Killacky (2006) noted that the demonstration of resilience occurs after a traumatic experience and involves the use of a set of skills to protect oneself against negative symptoms (Bogar & Hulse-Killacky). Finally, Bonanno (2004) in a discussion of resilience after loss reported that “resilient individuals...generally exhibit a stable trajectory of healthy functioning across time, as well as the capacity for generative experiences and positive emotions” (p. 21).

Although each of these definitions clearly has different nuances, the general operationalization of resilience is consistent: resilience is a process occurring over time and involving the ability to adapt after trauma. Assumed but not explicit in these definitions is that resilience does not necessarily indicate an absence of mental health challenges (Bonanno, 2004), and is not a psychological trait (Rutter, 2007). In addition, resilience is described as varying between people and places (Luthar & Cicchetti, 2000). Factors or behaviors that may indicate resilience for one person may in fact be problematic for another person (Rutter) and the same can be said for situations: a person may demonstrate resiliency in one situation but those same skills or behaviors may not

work as protective factors in other situations. Luthar et al. (2000) noted that while varying approaches to the operationalization of resilience can further the understanding of this construct, future definitions need to include justifications for how and why the term was defined as such. For the purposes of this research, the Luthar and authors' definition presented in the previous paragraph will be used because of its life span focus and applicability to adult survivors of CSA.

Although a general consensus exists in relation to the important concepts underlying the operationalization of resilience, how one defines the positive adaptation piece is central to understanding how survivors cope and thrive. Again, commonalities can be seen in resilience definitions and CSA definitions: authors rarely describe their reasoning behind identifying specific factors as indicative of positive adaptation. As a result, and in order to clarify the specific experiences of adult survivors of CSA, several qualitative studies have looked at the factors that survivors' identify as contributing to increasing their vulnerability or their positive adaptation (Bogar & Hulse-Killacky, 2006; Collishaw, et al., 2007; Edmond, et al., 2006; Friedman, 2007; Menna, 2008; Singleton, 2004; Thomas & Hall, 2008; Valentine & Feinauer, 1993; Wang & Heppner, 2011).

Resilience in CSA survivors. As discussed in the mediating and moderating factors section, several factors act to increase an individual survivors' vulnerability, including concurrent experiences of other forms of maltreatment, substance use disorders in one or both parents, and various other family and abuse-specific factors. Most resiliency research on adult survivors of CSA has taken the opposite focus and investigated factors that prove protective (Bogar & Hulse-Killacky, 2006; Collishaw, et

al., 2007; Edmond, et al., 2006; A. Friedman, 2007; Ligiéro, et al., 2009; Menna, 2008; Singleton, 2004; Thomas & Hall, 2008; Valentine & Feinauer, 1993; Walsh, et al., 2007).

Protective factors identified in the literature are wide-ranging, falling into three categories, outlined by Menna as environmental, cognitive, and active. Environmental protective factors include social support, and healthy relationships; cognitive factors include internal locus of control, future orientation, optimism, the ability to make meaning, external attribution of blame, spirituality, healthy appraisal of self and others, and self-concept; and active protective factors include seeking counseling, creative expression, self-care, and education.

For example, Bogar and Hulse-Killacky (2006) interviewed ten adult women who reported being sexually abused as a child by someone they knew and reported current life satisfaction. In their phenomenological approach, the authors first categorized individual participant statements into two categories, resiliency determinants or resiliency processes. Resiliency determinants were identified as “specific, innate and learned characteristics that contributed to participants’ ability to become resilient adults” (Bogar & Killacky, p. 321). The authors reported five clusters of resiliency determinants: interpersonally skilled, competent, high self-regard, spiritual and helpful life circumstances (Bogar & Hulse-Killacky). Of these reported clusters, several emerged as predominant themes among women: participants reported that the ability to focus on other aspects of their lives was particularly essential to their ability to be resilient, and that additional challenges promoted their growth and resilience (Bogar & Hulse-Killacky). Of note, many of the women reported that focusing on other aspects of life began in childhood and

carried them through challenging times, while also reporting that the stressful challenges that helped foster resilience occurred during childhood (Bogar & Hulse-Killacky). Little demographic information was provided about the participants, but the finding that eight out of the ten women were pursuing or were considering advanced degrees at the time of the study may have influenced the theme of competence.

Consistent findings have been reported in other qualitative studies (Edmond, et al., 2006; Ligiéro, et al., 2009; Thomas & Hall, 2008). For example, Thomas and Hall interviewed 27 women ranging in age from 29 to 79 over a series of three encounters to identify life narratives of women survivors of childhood abuse, a large portion of which were survivors of CSA. The authors reported that for some women, school became an outlet much like for those participants in Bogar and Hulse-Killacky's (2006) sample. However, in contrast, for others, school did not serve in this capacity and although it remained a safe place for all of the women in the study, it is not clear that all survivors of CSA find sources of outlet in educational experiences.

Similarly, in a grounded theory based qualitative study of nine Latina survivors of CSA, Ligiero et al. (2009) also identified thoughts and feelings about the abuse, coping behaviors, and sources of support as emergent themes in interviews. However, in contrast to the previous qualitative studies, for the nine Latinas, cultural context was an integral piece of their experiences. The authors concluded that viewing women survivors of CSA through a systematic approach is necessary in order to fully understand their experiences, and noted that this approach is consistent with current models of resilience (Ligiéro, et al.).

Supportive of these qualitative findings, Edmond et al. (2006) reported findings related to a sample of adolescent girls in foster care who had experienced moderate to severe emotional, physical, and sexual abuse. Resilience was identified as the absence of mental and behavioral problems common to survivors of CSA which was identified as a normal cutoff score on the Youth Self-Report (YSR) version of the Child Behavior Checklist (CBCL; Achenbach, 1991). The two groups of adolescent girls differed significantly on every subscale of the YRS. A regression analysis revealed that future orientation, positive peer behavior, negative peer behavior, and certainty of high school plans accounted for 77% of the variance in resilience (Edmond, et al.). Family support and abuse severity did not significantly affect outcomes in this sample. Despite facing innumerable challenges, just at half of the girls in this sample (49.9%) reported no clinical levels of mental health or behavioral problems and consistent with the qualitative findings reported previously, resilience was associated with future orientation and optimism, along with supportive and positive social relationships (Edmond, et al.).

Although helpful as beginning steps toward a more integrative view of survivors, simply understanding the potential protective factors is only a partial step. Essential to this integrative approach is understanding not only the protective factors but identifying the underlying processes behind resilience factors (Luthar & Cicchetti, 2000). The qualitative investigation by Bogar and Hulse-Killacky (2006) did just that by looking at the processes that contribute to the expression of resilience in adult women survivors of CSA. In the phenomenological study of ten adult women survivors of CSA self-identified as well-adjusted, four processes emerged: coping strategies, refocusing and moving on,

active healing, and achieving closure. The coping strategies identified included familiar approaches recognized frequently in the CSA literature: writing, self-talk, avoidance, keeping busy, depersonalization, healthy distrust, and setting limits and boundaries (Bogar & Hulse-Killacky). However, the authors noted that the participants primarily used these approaches in childhood and adolescence, knowledge not previously investigated or reported in the literature. Further, the study linked adulthood processes to that of focusing energy on other goals and taking active steps toward recovery (Bogar & Hulse-Killacky).

Building on these results, Bonanno (2005) posited that resilience is one of the potential processes after trauma - one that represents “a distinct and empirically separable outcome trajectory” (p. 265) comprised of stable, healthy functioning over time. Crucial to the understanding of resilience across time, according to Bonanno (2005), is the recognition that there are distinct differences between resilience in childhood and adulthood. The results reported by Bogar and Hulse-Killacky (2006) provide at least partial support for this hypothesis: the women in their study reported using different coping processes in childhood and adulthood. Although Bonanno’s hypothesis has yet to be tested thoroughly, it provides insights on important and valid questions about pathways and processes after trauma. As established, survivors may experience any number of trajectories but clarity around what these may entail is still lacking. Consistent with the literature on resilience, studies of post-traumatic growth provide another approach to understanding survivor trajectories that could provide further insight.

Post-Traumatic Growth. The mainstream disease-oriented model of mental health and the historical focus on negative outcomes of trauma, specifically CSA, portray a path of despair after traumatic experiences. However, often victims of traumatic experiences report positive changes including increased appreciation for life, greater capacity to relate with others, and increased perception of new possibilities and personal strengths, (Levine, Laufer, Stein, Hamama-Raz, & Solomon, 2009; Tedeschi & Calhoun, 2004) and recent findings suggest survivors of trauma report positive changes at higher rates than psychological or psychiatric symptoms (Bhushan & Hussain, 2007; Linley & Joseph, 2004). The need arose for a way to explain these positive outcomes, and from the emerging discourses originated the concept of posttraumatic growth (PTG; Tedeschi, et al., 1998b), a term that succinctly describes positive benefits associated with traumatic experiences (Tedeschi, et al., 1998b; Zoellner & Maercker, 2006). Although PTG shares similar characteristics with and has been compared to adversarial growth (Linley & Joseph), stress-related growth, perceived benefits, (Bhushan & Hussain), growth following highly stressful life events (Park & Helgeson, 2006), and wisdom (Baltes & Staudinger, 2000), none of these constructs have garnered the attention, or the empirical study that PTG has in the last two decades (Maercker & Zoellner, 2004). Further, little consensus exists around the nature of the previous constructs, whereas PTG appears to have gained validity in many ways, including the preponderance of one model.

The possibility of creating meaning or growth as a result of trauma has been discussed for centuries, first in the context of several religions and mythology and later in psychology and philosophy (Warbel, 2009). The concept, however, was not applied in

behavioral science studies until the 1990's when it was thoroughly described by Tedeschi and Calhoun (1995). In Tedeschi and Calhoun's original work on PTG, the authors defined PTG as "positive change that an individual experiences as a result of the struggle with a traumatic event" (Calhoun & Tedeschi, 1999, p. 11) that results in "significant beneficial change in cognitive and emotional life that may have behavioral implications as well" (Tedeschi, et al., 1998b, p. 3).

The basis for positive change is the experience of trauma, which disturbs or shatters core elements of a person's worldview and life, representing a significant challenge to the individual's goals, beliefs, and ability to manage distressful emotions (Joseph & Linley, 2006). The inability to manage distressing emotions effectively results in the use of coping mechanisms in an attempt to alleviate or minimize the emotions (Zoellner & Maercker, 2006). The manner in which the traumatic experience causes loss involves an inherent experience of a loss of understanding and meaning, and produces the opportunity for these aspects of meaning or understanding to be rebuilt in an improved way (Tedeschi, et al., 1998b). Keys to the experience of PTG are three dimensions of personal growth: perception of self, relationships with others, and philosophy of life (Calhoun & Tedeschi, 2006; Tedeschi, et al., 1998b). A change in perception of self can manifest in different experiences of growth, including gaining a greater sense of personal strength and recognizing different or new paths in life (Cobb, et al., 2006; Tedeschi & Calhoun, 1995). Often after individuals experience traumatic events, they report feeling a greater connection with others (Warbel, 2009). Survivors of trauma may experience an increase in empathy and compassion for others as a result of their experience, thus

increasing their ability to relate with others (Cobb, et al., 2006; Tedeschi & Calhoun, 1995). Finally, along with the experience of a traumatic event is often times a changed philosophy of life, which may incorporate a greater appreciation for life and spiritual or religious growth (Cobb, et al., 2006; Tedeschi & Calhoun, 1995, 2004).

Tedeschi and Calhoun developed the Post Traumatic Growth Inventory (PTGI; 1996) to measure these experiences in individuals. Results from their initial principal components analysis resulted in a five component solution that accounted for 62% of the variance. The five identified components were Relating to Others, New Possibilities, Personal Strength, Spiritual Change, and Appreciation for Life. Results from additional investigations of the factor structure of the PTGI are mixed. For example, Taku, Cann, Calhoun, and Tedeschi (2008) conducted a CFA with data from 926 adults who had experienced a highly stressful event and reported that the best fit model was a five factor intercorrelated model, $\chi^2 (179) = 962.53$, CFI = .075, TLI = .967, SRMR = .045, and RMSEA = .069. In this model the correlations between all five factors were significant, ranging from $r = .56$ (Spiritual Change and Personal Strength) to $r = .85$ (Personal Strength and New Possibilities). The authors concluded that their results supported Tedeschi and Calhoun's five-factor model. However, the authors added that the results indicated some issues with the five factors, especially with the discriminant validity of the new possibilities and personal strength factors, as their factor correlations were high. Additional support of the five factor structure was reported by Linley, et al. (2007): the five factor model had the best fit (RMSEA = .079; IFI = .917; CFI = .917) with a sample of 372 college students and members of the British general population who reported

experiencing a traumatic or adverse event. The authors concluded that Tedeschi and Calhoun's five factor model provides a reasonable description of the structure of PTG but added a caveat similar to the one given by Taku et al. A study of the Dutch version of the PTGI (Jaarsma, Pool, Sanderman, & Ranchor, 2006) and a study in Australia (Morris, Shakespeare-Finch, Rieck, & Newbery, 2005) also resulted in five-factor models.

However, a significant number of studies have reported discrepant findings (Polatinsky & Esprey, 2000; Powell, Rosner, Butollo, Tedeschi, & Calhoun, 2003; Sheikh & Marotta, 2005). In Polatinsky and Esprey's study of 67 bereaved mothers and fathers, the authors reported that the one factor solution fit their sample appropriately (but did not give statistical output). Powell et al. reported a three-factor solution with a sample of 136 Bosnian refugees, however the factor structure was unclear with many of the items loading highly on more than one factor. Finally, Sheikh and Marotta, in their attempt to validate the five-factor structure, reported the emergence of a one-component structure from a principal components analysis of 124 individuals who had a myocardial infarction and/or coronary artery bypass surgery. In their study, the one component accounted for 56.2% of the variance. Although clear issues exist with the factor structure of the PTGI, it is a valuable tool for measuring PTG - however, it may not provide detailed information about that experience. Regardless, the PTGI has continually been found to have high reliability across varying samples (Jaarsma, et al., 2006; Morris, et al., 2005; Sheikh & Marotta, 2005; Tedeschi & Calhoun, 1996), maintaining the viability of its use in research.

PTG in trauma survivors. The presence of PTG has been reported in samples of Hispanic women with Rheumatic diseases (Abraído-Lanza, et al., 1998), women and men with various forms of cancer (Bellizzi, et al., 2010; Lechner, et al., 2006; Sears, et al., 2003; Thornton & Perez, 2006; T. Weiss, 2004; Widows, et al., 2005), parents of children with cancer (Best, Streisand, Catania, & Kazak, 2001), bereaved persons (Cadell, et al., 2003; Polatinsky & Esprey, 2000), survivors of major traumatic events (Calhoun & Tedeschi, 2001; Tedeschi & Calhoun, 1996; Tedeschi, et al., 1998b; Wild & Paivio, 2003a), Holocaust survivors (Lev-Wiesel & Amir, 2003), individuals with HIV/AIDS (Milam, 2006), and individuals with heart disease (Sheikh, 2004). Most of these studies simply reported the existence of PTG in the samples. Some, however, have investigated the factors that may contribute to PTG and how PTG is related to outcomes.

The investigation of PTG in various samples has resulted in some understanding of the factors that may contribute to PTG. Prati and Pietrantonio (2009) analyzed 103 studies of PTG for contributing factors. Using Pearson's r , Prati and Pietrantonio ($n = 103$) reported significant strong effect sizes for religious coping ($r = .38, p < .001$) and positive reappraisal coping ($r = .36, p < .001$); significant moderate effect sizes for social support ($r = .26, p < .001$), support coping ($r = .25, p < .001$), spirituality ($r = .23, p < .001$), and optimism ($r = .23, p < .001$); and a small significant effect size for acceptance coping ($r = .17, p < .001$). A review of moderating variables indicated that positive reappraisal coping and religious coping accounted for almost all of the variance in effect sizes (Prati & Pietrantonio). This analysis supports the idea that PTG is associated with positive coping approaches, social support, optimism, and spirituality. Of particular value to the

study of adult women survivors of CSA was the finding that older individuals and women demonstrated greater benefit from religious coping.

Although demonstrated in a varied set of populations, studies of the impact of PTG on mental health outcomes are infrequent (Linley, Joseph, & Goodfellow, 2008; Zoellner & Maercker, 2006). In their meta-analysis of 87 studies of PTG and various outcomes, Helgeson, Reynolds, and Tomich (2006) reported effect sizes using Pearson's r , of studies with a clear measure of PTG, including the PTGI, and mental or physical health outcomes, and participants with an experience of trauma of any kind. The authors reported that PTG was related to less depression ($r = -.09, p < .001$), greater well-being ($r = .22, p < .001$), and greater intrusive-avoidant thoughts ($r = .18, p < .001$) but not related to anxiety ($r = -.02$) or global distress ($r = .00$; Helgeson, et al.). As the time since the trauma increased, the relationship between PTG and depression and positive wellbeing also increased. Finally, PTG was related to greater optimism and religiosity, and all three types of coping studied: positive reappraisal, acceptance, and denial (Helgeson, et al.). According to their findings, the use of well-established measures of PTG and a greater proportion of non-white individuals in the sample contributed to a higher effect size for reduced global distress.

The two meta-analyses clarify characteristics that may contribute to the expression of PTG and highlight ways in which PTG may affect outcomes. Several authors investigated PTG in adult women survivors of CSA. The results from these studies provide further insight into the process and outcomes related to PTG.

PTG and CSA survivors. As with any traumatic experience, it seems likely that growth would be one potential experience for adult women survivors of CSA. Although this posits a novel approach to incorporating a wellness focus in research, few authors have investigated PTG in adult women survivors of CSA. The four published studies appear supportive of the experience of PTG for some adult women survivors of CSA (Lev-Wiesel, Amir, & Besser, 2005; McMillen, Zuravin, & Rideout, 1995; Shakespeare-Finch & Armstrong, 2010; Shakespeare-Finch & de Dassel, 2009). Specifically, Lev-Weisel, et al., in a sample of 93 Israeli women, reported that abuse by a close relative contributed to higher rates of PTSD and PTG, with a significant correlation between PTSD and PTG ($r = .53, p < .001$). Building on this dynamic were the results reported by Shakespeare-Finch and de Dassel. These authors reported that the PTG factors of new possibilities, appreciation for life, and spiritual change were positively associated with hyperarousal and intrusion and that avoidance was negatively associated with positive changes in relationships with others. The authors also reported several themes from a narrative portion of their study consistent with those reported in studies of resilience, including personal strengths, positive and negative themes together, avoidance, and support (Shakespeare-Finch & de Dassel). Of these, survivors reported that a lack of support was particularly problematic in their post-trauma experiences. The most recent of the four studies compared PTG in survivors of CSA, motor vehicle accidents, and bereavement (Shakespeare-Finch & Armstrong). The CSA survivors ($n=32$) reported significantly higher levels of PTSD symptoms while still reporting moderate levels of growth. Individuals in the bereavement group reported significantly higher levels of

appreciation for life, and relating to others while survivors of CSA reported significantly higher levels of avoidance and hyperarousal.

Although the lack of studies precludes generalizability, these findings are interesting in the context of growth after CSA. The results from the meta-analyses coupled with the previous studies on CSA survivors support the notion that PTG is an outcome that survivors might experience. Further, the experience of PTG may be related to various types of coping, intrusion and avoidance, optimism, spirituality, and social support, which may result in improved mental health outcomes. The paucity of research data prevent the generalizability of the results to survivors but provide a base for approaching PTG in survivors. However, before these can be considered fully, a review of the current criticisms of PTG is necessary.

Criticisms of PTG. It is clear that research of PTG is only in its infancy and much work is needed to further our understanding of PTG, however several issues have been raised in regards to PTG as a construct. The issue of most concern is outlined well by Helgeson and others (2006) when they noted that “growth outcomes may reflect a variety of processes, some of which have to do with actual changes in one’s life, some of which have to do with coping, and others of which have to do with cognitive manipulations on the order of self-enhancement biases meant to alleviate distress” (p. 812). Other authors have supported this criticism as well, noting that there is a clear lack of psychometric evidence of the structure of growth with it remaining unclear as to whether PTG represents actual positive growth possibly in the form of action, positive illusion, or positive coping (Butler, 2007; C. G. Davis & McKearney, 2003; Frazier, et al., 2009;

Joseph & Linley, 2006; McFarland & Alvaro, 2000). An additional major criticism is that the current approach to measuring PTG primarily uses self-report measures of perceived change regardless of the known issues with this approach and the result may be that rather than assessing actual growth, these measures assess perceived growth (Frazier, et al.; Leverich, et al., 2002; Nolen-Hoeksema & Davis, 2004; Zoellner & Maercker, 2006). Other issues with construct development include the lack of consistency in describing and defining PTG, with authors implicitly including resilience in the description of PTG, or describing PTG as superior to resilience (Westphal & Bonanno, 2007).

With the introduction of any new construct, some issues with development are expected. However, as the focus of PTG research continues to vary, little has been done to address these issues. A number of theorists, in reviews of the literature, have proposed the need for further in-depth analysis of PTG in specific populations (Butler, 2007; Helgeson, et al., 2006), while others have attempted to describe the differences between PTG and other related constructs to advance the clarity around this issue (Westphal & Bonanno, 2007). As a result, several authors have addressed the relationship between PTG and resilience.

PTG and resilience. Issues with the construct development of PTG have led to much discourse around the relationship between PTG and a related construct, resilience. Although limited conclusive research exists, what has been published appears supportive of an inverse relationship between PTG and resilience (Levine, et al., 2009). Theorists on resilience would tend to agree. For example, Westphal and Bonanno (2007) argued that “it is highly unlikely that resilient individuals would engage in the kind of meaning-

making behaviors associated with PTG for the similar reasons that they tend not to struggle to the same extent as might other, more traumatized individuals” (p. 420). A few studies have supported the idea that resilient individuals will not need to engage in meaning-making after a loss (Bonanno, Wortman, & Nesse, 2004; C. G. Davis, Nolen-Hoeksema, & Larson, 1998) while other studies suggested that meaning is only helpful when it is actually present, rather than when an individual is searching for it (Linley & Joseph, 2011). However, the research in this area is limited. The current review is suggestive of problems common to PTG and resilience: the processes behind the experience of these are as yet still illusory and it remains unclear how these constructs relate to actual positive outcomes and to one another, and how much they vary in survivors of different traumatic experiences.

Summary. A number of challenges permeate the construct of PTG, but as with many psychosocial concepts, some issues are expected given the general difficulty in understanding complex intra and interpersonal processes. Challenges withstanding, most authors do agree that the investigation of PTG is helpful to the overall understanding of trauma. Butler (2007) summarized the issues with PTG well when she said “It is the breadth in representation of the experience that has been missing from many examinations of growth in the context of adversity” (p. 372). A focus on acquiring a greater understanding of the individual processes that contribute to PTG in specific populations is in need.

Summary of the Literature Review

Adult women survivors of CSA are a heterogeneous group: individual survivors may or may not experience long-term negative physical and mental health outcomes related to their experiences of abuse. Further, negative outcomes are likely to be affected by a plethora of mediating and moderating variables. Importantly, though, is that despite the focus on negative outcomes in the field of study, many survivors of CSA recover or heal in such a way that their lives are less affected, or even enhanced because of their own demonstration of strengths, resilience, PTG, and other coping processes.

Despite a call for a shift in trauma research, a focus on trajectories of survival that result in wellness has not found significant momentum and the approaches to understanding differential trajectories that have emerged have taken seemingly divergent courses. The different trajectories of survival or healing may be represented by the concepts of resilience, or PTG but relatively little is known about individual survivor trajectories. Concerns with construct development, including factor structure, issues with the models that describe these constructs, and key areas of overlap between the two constructs have resulted in a severe lack of clarity. However, originating from the criticisms are calls for a different perspective, one that approaches the concepts of resilience and PTG as processes representing unique trajectories of survival. Rather than disparate constructs that describe outcomes of trauma survival, resilience and PTG may represent pathways, comprised of dynamic processes that result in outcomes of wellness. Yet, whether resilience and PTG are pathways, whether they represent unique pathways, and whether they result in specific outcomes of wellness remains to be identified. The

aim of this study is to explore trajectories of adjustment that result in outcomes of wellness in adult women survivors of CSA.

CHAPTER III

METHODOLOGY

In Chapters 1 and 2 the rationale and a review of the literature were presented as a basis for the investigation of wellness, resilience, and post-traumatic growth in adult women survivors of CSA. Through the literature review it is evident that wellness, resilience and PTG are experiences common among trauma survivors and is initially suggestive that these concepts may be applicable to the experiences of adult women survivors of CSA. The purpose of this research was to address the current gap in the literature on the wellness, resilience, and PTG growth experiences of adult women survivors of CSA by investigating the relationships between wellness, resilience, and PTG and determining how additional factors affect these relationships. In this chapter the current study's methodology is described, including the research questions and hypotheses, as well as participants, instrumentation, data collection, and statistical procedures.

Research Questions

The aim of this study was to examine the relationship between wellness and alternate outcomes of survival including resilience and PTG in adult women survivors of CSA. To investigate these relationships, five research questions were addressed. Additionally, a total of 13 hypotheses correspond to the five research questions.

Research Question 1. What are the relationships among total and second-order wellness factors, total post-traumatic growth, total resilience, and total PTS symptoms among adult women survivors of CSA?

Hypothesis 1a – There will be a statistically significant positive relationship between total and second-order wellness factors and PTG.

Hypothesis 1b – There will be a statistically significant negative relationship between PTG and resilience.

Hypothesis 1c – There will be a statistically significant positive relationship between resilience and total and second-order wellness factors.

Hypothesis 1d – There will be a statistically significant negative relationship between PTSD symptoms and total and second-order wellness factors.

Hypothesis 1e – There will be a statistically significant negative relationship between PTSD symptoms and resilience.

Hypothesis 1f – There will be a statistically significant positive relationship between PTSD symptoms and PTG.

Research Question 2. Are there differences in mean scores of wellness, resilience, post-traumatic growth, and PTS symptoms among adult women survivors of CSA based on perpetrator status?

Hypothesis 2 - There will be a statistically significant positive difference in mean scores on measures of total and second-order wellness, post-traumatic growth, resilience, and PTS symptoms among adult women survivors of CSA based on perpetrator status (within family vs. outside of family).

Research Question 3. Do factors including current age of participants, additional childhood maltreatment, current level of distress related to CSA experiences, and age at onset of abuse predict total wellness, post-traumatic growth, resilience, and PTS symptoms?

Hypothesis 3a – Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict wellness factors, specifically current age will have a significant positive relationship whereas current impact of CSA, additional maltreatment, CSA severity and age of onset will have a significant negative relationship.

Hypothesis 3b – Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict PTG, specifically current age and current impact of CSA will have a significant negative relationship whereas, additional maltreatment, CSA severity, and age of onset will have a significant positive relationship.

Hypothesis 3c – Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict Resilience, specifically current age, CSA severity, and age of onset will have a significant positive relationship whereas current impact of CSA, additional maltreatment will have a significant negative relationship.

Hypothesis 3d - Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict PTS Symptoms, specifically current age and age of onset will have a significant negative

relationship whereas current impact of CSA, CSA severity, and additional maltreatment will have a significant positive relationship.

Research Question 4. What are the 5F-Wel subscale scores and total score of participants, as measured by the 5F-Wel instrument, and how do these compare to general population norms?

Hypothesis 4 – The 5F-Wel total score and subscale scores of the participants will be lower than the standardized population norms.

Research Question 5. What proportion of the variance in the wellness of adult women survivors of CSA can be accounted for by resilience, PTG, and PTSD symptoms when controlling for CSA characteristics?

Hypothesis 5 – Resilience, PTG, and PTSD symptoms will account for a significant amount of the variance in wellness in adult women survivors of CSA.

Participants

The population of interest was adult women survivors of CSA. Women were included in the study if they identified as 18 years old or older and answered affirmatively to a question about CSA. A history of CSA was determined by the participants and clarified through the use of questions about the CSA experiences later in the online survey. Participants were excluded only if their reported age was less than 18 years old and if they answered no to the CSA questions.

Instrumentation

Five quantitative measures were used in data collection: the 5-Factor Wellness Inventory (5F-Wel) to assess wellness, the Abridged Connor-Davidson Resilience Scale (CD-RISC; Campbell-Sills & Stein, 2007) to assess resilience, the Post-Traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) to assess PTG, the Impact of Event Scale-Revised (Weiss, 2007) to assess PTSD symptoms, and the Computer Assisted Maltreatment Inventory (CAMI; Nash, et al., 2002) to assess childhood maltreatment. The Traumatic Events Scale (TES; Pennebaker & Susman, 1988) was used in the pilot study to provide information about traumatic events that occurred during childhood and within the last three years, but was removed in the full study. An explanation of the reasons for the removal of this instrument is presented in the pilot study section. In addition to the five instruments, the respondents completed a demographics questionnaire, all of which are described in Appendix A. All of the instruments were self-report measures. Each instrument is described below, with a focus on the purpose and psychometric properties of the instruments.

Demographics questionnaire. The participants completed a demographics questionnaire created by the author that inquired about the following: age, ethnicity, highest grade completed, current employment status, income, relationship status, and sexual orientation.

Wellness. The Five-Factor Wellness Inventory – Adult Version (5F-Wel; Myers & Sweeney, 1999; Myers & Sweeney, 2005) is an evidence-based tool that measures the components of the Indivisible Self model of wellness (IS-Wel) in adults: a higher order

Wellness factor, five second order factors (Creative, Coping, Social, Essential, and Physical Selves), and 17 discrete scales. The scale is comprised of 91 items, rated on a four-point Likert scale ranging from strongly agree (1) to strongly disagree (4). 73 items determine the factor scores while the remaining items assess the four contextual variables (local, institutional, global, and chronological) outlined in the IS-Wel model, safety, perceived wellness and psychometric properties. Scores are provided for each of the second order factors. The sum of these provides a global wellness score, with higher scores indicating greater wellness.

The 5F-Wel was initially developed through analysis of 3,043 participants' data from an earlier version, the Wellness Evaluation Lifestyle measure (Myers & Sweeney, 2008a). The result of this analysis was the development of both the IS-Wel model of wellness and the 5F-Wel measure of wellness, as described in Chapter 2. Each scale of the 5F-Wel has been supported through exploratory and confirmatory factor analyses with alphas for the second order factor scales ranging from .90 to .94 and with an alpha of .94 for Total Wellness, the higher order factor (Myers & Sweeney, 2005a). The alphas for the third-order factors range from .66 to .87. Reported alphas for the contextual variables are .66 (global), .73 (institutional), and .79 (chronological). Initial evidence of validity is found in the development of the model of wellness. The strong theoretical focus is the basis for high content validity (Kahlo, 2009). Myers and Sweeney (2005) reported that additional convergent and discriminant validity was established through research on the 5F-Wel in relation to various constructs including ethnic identity, acculturation, body image, self-esteem, and gender role conflict.

Three versions of the 5F-Wel are available: adult, teen, and elementary versions. A sample of 1,899 adults was used to develop a normative sample for the 5F-Wel-A (Myers & Sweeney, 2008a). Scores on the 5F-Wel can range from 25 to 100 for total wellness and each individual wellness factor. The reported mean for total wellness was $M = 76.22$, $SD = 12.51$ while the means for the subfactors were as follows: Creative Self ($M = 77.80$, $SD = 12.99$), Coping Self ($M = 72.36$, $SD = 10.63$), Social Self ($M = 84.06$, $SD = 17.82$), Essential Self ($M = 78.90$, $SD = 16.15$), and Physical Self ($M = 70.98$, $SD = 17.00$).

Resilience. The Abridged Connor-Davidson Resilience Scale (CD-RISC-10; Campbell-Sills & Stein, 2007) is a 10 item scale, rated on a 5-point Likert scale with the following range: not true at all (0), rarely true (1), sometimes true (2), often true (3), and true nearly all of the time (4). The CD-RISC-10 followed the original CD-RISC, an assessment developed by Connor and Davidson (2003) to measure resilience as a multidimensional characteristic and considers the effects of context, time, age, gender, and culture. The CD-RISC-10 was developed after exploratory factor analyses of the CD-RISC with two large samples ($n = 511$ and $n = 512$) yielded unstable factor structures. A review of the CD-RISC will provide a basis for understanding the CD-RISC-10.

The CD-RISC was developed with two applications in mind: to quantify resilience and to measure treatment response (Connor & Davidson). The authors combined knowledge from studies of hardiness and resilience to compile a set of characteristics of resilient people. The identified characteristics were a view that change/stress are challenges/opportunities, the view that limits exist to control,

commitment, engaging support from others, personal goals, action orientation, self-esteem/confidence, growth as a result of stress, adaptability, social problem solving skills, humor, responsibility, secure/stable bonds, prior success, patience, endurance, the role of faith, and optimism. Internal consistency was reported at $\alpha = 0.89$, test-retest reliability was $r = 0.87$, and convergent validity was established by comparing results of the CD-RISC with results on the Kobasa hardiness measure, the Perceived Stress Scale, and the Sheehan Stress Vulnerability Scale, $r = 0.83, p < .0001$; $r = -0.76, p < .001$; and $r = -.32, p < .001$, respectively. Results of a comparison of the CD-RISC scores and global clinical improvement indicated that respondents' scores on the CD-RISC increased significantly in conjunction with overall clinical improvement, $F(2, 47) = 12.87, p < .001$. A factor analysis of the data from the first group of participants resulted in the emergence of five factors. The authors interpreted these factors as following: Factor 1 – personal competence, high standards, and tenacity; Factor 2 – trust in one's instincts, tolerance of negative effect, and belief in the strengthening effects of stress; Factor 3 - positive acceptance of change, and secure relationships; Factor 4 – control; and Factor 5 - spiritual influences.

However, attempts to reproduce these findings were unsuccessful, resulting in the development of the CD-RISC-10 (Campbell-Sills & Stein, 2007). Campbell-Sills and Stein also highlighted a number of methodological concerns with the development of the CD-RISC including the unclear factor selection criteria, the fact that factors were not allowed to intercorrelate in the original model, the individual factors lacked distinct themes, and one of the factors (spirituality) was only represented by two items

(Campbell-Sills & Stein). In response to these issues, Campbell-Sills and Stein completed two exploratory factor analyses (EFA) of the CD-RISC. The results of the first EFA reasonably supported a four-factor model, $X^2(206) = 424.09, p < .001$; RMSEA = .046, CFit = .88, however one factor as defined by only two items, one factor lacked a clear theme, and two items did not load on any factor. The results of the second analysis, an independent EFA, were even less conclusive: a four factor model again had the best fit, $X^2(206) = 453.36, p < .001$; RMSEA = .048, CFit = .66, however, nine items were shared between two of the factors, four items were shared between the remaining two factors and several items loaded on different factors than in the previous EFA. Based on the results, the authors made modifications to the scale and completed two additional EFAs and a confirmatory factor analysis (CFA).

Campbell-Sills and Stein modified the original CD-RISC by removing the items that loaded inconsistently and the items that corresponded to poorly defined factors. The result was a 10-item scale with items that had salient and consistent loadings. The authors reported results from two additional EFAs using the 10-item version: a two-factor model emerged as most coherent in the first EFA, $X^2(53) = 101.6, p < .001$; RMSEA = .042, CFit = .87, and in the second EFA, $X^2(53) = 74.42, p < .001$; RMSEA = .027, CFit = 1.0, with all items loading onto one factor and no items cross-loading. The two factors that emerged were described as hardiness and persistence, and had an intercorrelation of 0.63. The hardiness factor contained the following items: unexpected events, stress, illness/hardship, pressure, negative outcomes, and unpleasant feelings. The persistence factor was comprised of four items: giving one's best effort no matter what, belief in

one's ability to achieve goals despite obstacles, not giving up, and working to attain goals despite roadblocks. The CFA provided additional support for the two factor model, $X^2(64) = 167.30, p < .001$; RMSEA = .055, CFit = .21. The scores on the abridged version and the scores on the original version of the CD-RISC strongly correlated, $r = .92$.

The two EFAs and the CFA supported both construct validity and internal consistency of the abridged version (Campbell-Sills & Stein, 2007). Additionally, Campbell and Stein reported a Cronbach's alpha of .85, also supported the reliability. In further analysis of validity, correlations between the CD-RISC-10 and other measures were supportive of convergent and discriminant validity (Campbell-Sills, Forde, & Stein, 2009; Campbell-Sills & Stein, 2007). In a community sample of 764 adults, the mean score of the CD-RISC-10 was 31.8 (SD=5.4; Campbell-Sills, et al.).

Post-Traumatic Growth. The Post Traumatic Growth Inventory (PTGI) was developed by Tedeschi and Calhoun (1996) to assess positive outcomes experienced by individuals who have experienced a traumatic event. The scale consists of 21 questions on a 6-point Likert scale and is comprised of five factors or potential outcomes of the trauma experience: New Possibilities, Relating to Others, Personal Strength, Spiritual Change, and Appreciation for Life. For each question, respondents are asked to indicate to what degree they experienced the change listed as a result of the crisis. The Likert scale ranged from "I did not experience this change as a result of my crisis" (0) to "I experienced this change to a very great degree as a result of my crisis" (5), with

intermediate scores of a very small degree (1), a small degree (2), a moderate degree (3), and a great degree (4).

The development of the PTGI was based first on a thorough literature review, after which Tedeschi and Calhoun (1996) generated 34 items that reflected the positive changes reported by trauma survivors. In the first of several empirical analyses of the scale, 604 respondents were asked to indicate to what degree each change listed in the scale occurred in their life as a result of a crisis. The reported crises were bereavement (36%), injuring-producing accidents (16%), separation or divorce of parents (8%), relationship breakup (7%), criminal victimization (5%), academic problems (4%), unwanted pregnancy (2%), and others. The initial principal components analysis indicated five easily interpreted factors with 21 items loading on these factors. The five factors accounted for 55% of the variance. A second principal components analysis of the 21 items resulted in the identification of five factors that accounted for 62% of the variance. The reduction of items to 21 resulted in no loss of information, as evidenced by a Pearson product-moment correlation of $r = .98$. The internal consistency of the 21-item PTGI was $\alpha = .90$ and all of the individual scales showed appropriate internal consistency as well: New Possibilities ($\alpha = .84$), Relating to Others ($\alpha = .85$), Personal Strength ($\alpha = .72$), Spiritual Change ($\alpha = .85$), and Appreciation for Life ($\alpha = .67$). A two month follow up of 28 participants resulted in an acceptable test-retest reliability of $r = .71$.

Tedeschi and Calhoun (1996) also compared the results of the 21-item PTGI to a social desirability scale (Marlowe-Crowne Social Desirability Scale) with 325 participants and a personality scale (NEO Personality Inventory) with 237 participants, in

order to establish concurrent and divergent validity. The PTGI was not related to social desirability as a whole. The only relationship emerged in individuals who scored higher on the Appreciation for Life scale: these persons reported significantly less social desirability behaviors ($r = -.15, p < .01$). Several aspects of the personality scale and the PTGI were related. The PTGI was positively correlated with optimism, religiosity and all of the personality factors save neuroticism. The three aspects of personality most significantly associated with the PTGI factors were Extraversion ($r = .31$), Positive Emotions ($r = .34$), and Openness ($r = .28$). According to the authors, these relationships may indicate that individuals possess certain personality characteristics that help contribute to growth after a trauma.

The results of Tedeschi and Calhoun's (1996) analysis of the PTGI indicated important gender differences. In the first study, women reported significantly higher growth after trauma ($t(1,590) = 3.94, p < .001$), with women scoring higher on every factor except New Possibilities. In the third study, Tedeschi and Calhoun compared PTGI scores of survivors of trauma with individuals who had no trauma experience. In this study, women again scored higher than men in overall growth ($F(1,113) = 10.69, p < .001$) and on every factor except the Appreciation for Life factor. According to Tedeschi and Calhoun (1996), these differences may be the result of women's tendencies to rely on spiritual and relationship factors in coping. Further, based on these results, it appears that women experience greater distress as a result of the crisis but also have a greater capacity for learning or benefiting from the crisis.

Additional support for construct validity, reliability, and applicability across cultures and ages have been provided by other researchers (e.g. Abraído-Lanza, et al., 1998; Aldwin, Sutton, & Lachman, 1996; Carrico et al., 2006; Cryder, Kilmer, Tedeschi, & Calhoun, 2006; Erbes et al., 2005; Helgeson, et al., 2006; Ho, Chan, & Ho, 2004; Jaarsma, et al., 2006; Jang, 2006; Jennings, Aldwin, Levenson, Spiro, & Mroczek, 2006; Milam, Ritt-Olson, Tan, Unger, & Nezami, 2005; Pargament, Koenig, Tarakeshwar, & Hahn, 2004; Prati & Pietrantonio, 2009). The PTGI was also validated in children (Cryder, et al.; Kilmer, et al., 2009), and adolescents (Gao et al., 2010; Ickovics et al., 2006; Levine, Laufer, Hamama-Raz, Stein, & Solomon, 2008; Milam, et al.). In addition, PTG has been validated using the PTGI in populations of Germans (Wagner & Maercker, 2010), Dutch (Jaarsma, et al.), Chinese (Gao, et al., 2010; Ho, et al., 2004), Japanese (Taku, 2011; Taku et al., 2007; Taku, et al., 2008), Taiwanese (Jang), Turkish (Dirik & Karanci, 2008), and Israeli (Kafko, 2009; Konvisser, 2007).

Posttraumatic Stress Symptoms. The Impact of Event Scale-Revised (D. S. Weiss & Marmar, 1997) is a revision of the widely used Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979) which measured symptoms of intrusion and avoidance. The IES-R was developed out of a need to address hyperarousal symptoms, the third cluster of symptoms in the DSM-IV-TR PTSD diagnosis. The IES-R is a 22 item scale that measures the frequency of intrusion, avoidance, and hyperarousal experiences as related to a specific traumatic experience. Items are rated on a 4-point Likert scale and are coded as 0, 1, 2, 3 or 4, with 0 being equal to no symptoms and 4

being equal to a high frequency of symptoms. Each scale is scored by taking the mean of the associated responses, resulting in possible scores ranging from 0 to 4 for each scale.

The primary support of the strength of the IES-R is directly related to the scale being a derivative of the IES (Wu & Chan, 2003). The construction of the IES-R was done so with attention paid to maintaining strong comparability with the original IES (D. S. Weiss, 2007). The original IES has been the most widely used self-report measure of PTSD symptoms (D. S. Weiss, 2007). In a meta-analysis of 66 studies of the IES, Sundin and Horowitz (2003) reported that regardless of trauma type, victims reported relatively stable ratings on the IES and that neither gender nor age affected stress reactions over time. In addition, the authors reported that time was a factor in IES scores, with scores slightly declining as time since the event increased.

In the evaluation of psychometric properties during the development of the IES-R, Weiss and Marmar (1997) reported that the internal consistency was high, with the intrusion alphas ranging from .87 to .92, the avoidance alphas ranging from .84 to .86, and the hyperarousal alphas ranging from .79 to .80. The authors analyzed the measure for test-retest reliability in two samples ($n=429$ and $n=197$). In the first sample, reliability coefficients were $r = .57$ (intrusion), $r = .51$ (avoidance), and $r = .59$ (hyperarousal) and in the second sample the reliability coefficients were $r = .94$ (intrusion), $r = .89$ (avoidance), and $r = .95$ (hyperarousal). The higher coefficients in Sample 2 were the result of a shorter time frame between the test and retest and differing traumatic events. There are no published norm scores for the IES-R and in fact, the authors recommend

against norm scores because of the highly varying populations to whom the IES-R is administered.

The IES-R has been used to measure PTSD symptoms in various populations including French women who recently experienced a natural disaster (Brunet, St-Hilaire, Jehel, & King, 2003), Vietnam war veterans, (Creamer, Bell, & Failla, 2003), survivors of a recent motor vehicle accident (MVA; (Beck et al., 2008), parents and children exposed to a Tsunami (Dyb, Jensen, & Nygaard, 2011), fathers of premature infants in Neonatal Intensive Care (Binder, Zeltzer, Simmons, Mirocha, & Pandya, 2011), direct survivors of the 2004 Indian Ocean tsunami and those who had a loved one die in the same tsunami (Johannesson, Lundin, Hultman, Fröjd, & Michel, 2011), Congolese adolescents displaced by war (Mels, Derluyn, Broekaert, & Rosseel, 2010), burn victims (Sveen et al., 2010), survivors of the war in Ex-Yugoslavia (Morina et al., 2010), and substance dependent individuals (Rash, Coffey, Baschnagel, Drobles, & Saladin, 2008). In addition, the IES-R has been successfully translated into multiple languages including Chinese (Guo, Xin, & Geng, 2007; Wu & Chan, 2003), Japanese (Asukai et al., 2002), French (Heeb, Gutjahr, Gulfi, & Castelli Dransart, 2011), Sinhala (Sri Lanka; (Perera-Diltz et al., 2009)), Greek (Mystakidou, Tsilika, Parpa, Galanos, & Vlahos, 2007) and Swedish (Sveen, et al.). Results of several confirmatory factor analyses have been supportive of the original three factor structure (Brunet, et al., 2003; Eid et al., 2009; Heeb, et al., 2011; Mystakidou, et al., 2007), however additional studies have reported varying factor structures. One factor (PTS symptoms; Taylor, et al., 1998), two-factor (intrusion-hyperarousal and avoidance; Creamer, et al., 2003), and four-factor (addition

of sleep as a factor; King, et al., 2009; Morina, et al., 2010; Wang, et al., 2010) models have emerged. Although the IES-R provides valuable information about PTS symptoms, there remains variability in the factor structure dependent on the study sample.

Childhood and Adolescent Maltreatment. The Computer Assisted Maltreatment Inventory (CAMI; DiLillo et al., 2006; Nash, 2006) is a behavioral-based questionnaire which detects whether physical or sexual child maltreatment has occurred and assesses the components of the maltreatment. The CAMI approaches the operationalization of each form of abuse flexibly – that is, individual researchers can adapt the original CAMI based on the operationalization of each form of abuse (DiLillo, et al., 2006). The results of the CAMI are presented on a continuum of severity.

The CAMI initially screens individuals through behavioral questions and then uses these screeners as the basis for determining the particular follow-up questions. The developers of the CAMI intentionally avoided using labels including “abuse” and “victim” (DiLillo, et al., 2006). Participants are presented with a list of sexual activities and then asked to indicate whether they experienced these prior to the age of 18 against their will, with a close family member or relative, or with someone more than 5 years older than themselves (DiLillo, et al., 2006). If the participant indicates that one or more of these experiences occurred, they are then asked follow-up questions pertaining to specific aspects of those experiences including the identity of the individual or individuals responsible (perpetrator), the frequency, and the type of sexual abuse.

Psychometric support of the CAMI is evidenced through the initial psychometric testing and through comparisons with the Childhood Trauma Questionnaire (CTQ;

Bernstein & Fink, 1998). The CAMI was initially tested in a sample of 1398 undergraduate students (DiLillo et al., 2010). Results of this analysis were supportive of test-retest reliability in 281 of the initial participants with a mean Kappa of .70 (SD=.08) across the five types of maltreatment (sexual abuse, physical abuse, exposure to interpersonal violence (IPV), psychological abuse, and neglect). The Kappa for the individuals who reported a history of CSA was $r(16) = .95, p < .001$. Further analysis revealed that at retest, the only characteristic to differ significantly was use of force (DiLillo, et al.). The Kappas for the remaining forms of maltreatment were $r(22) = .82, p < .001$ for physical abuse, $r(47) = .77, p < .001$ for IPV, $r(221) = .84, p < .001$ for psychological abuse, and $r(227) = .81, p < .001$ for neglect.

In a comparison with the widely studied and empirically validated CTQ, the results supported the criterion validity of the CAMI (DiLillo, et al., 2010). In the comparison of the two measures in a sample of 1195 students, all abuse severity scores were significantly and positively correlated across both measures at the $p < .01$ level (DiLillo, et al.). The r values ranged from .53 (Physical abuse) to .79 (Total severity). The correlation for Sexual abuse was $r = .55$. The CTQ measures both emotional abuse and emotional neglect which when analyzed in relation to psychological abuse, resulted in r values of .74 and .76 respectively.

Additional Traumatic Experiences. The Traumatic Events Scale (Pennebaker & Susman, 1988) is a self-report questionnaire that inquires about six types of traumatic events. The scale can be used to assess childhood trauma and adult trauma. The Childhood Traumatic Event Scale (CTES) asks about traumatic events that occurred prior

to the age of 18 and the Recent Traumatic Event Scale (RTES) slightly modifies the questions to inquire about traumatic events that occurred within the previous three years. The six types of traumatic events are the death of a family member or intimate friend; separation or divorce of parents in the CTES and between the individual and their spouse in the RTES; traumatic sexual experiences; experiences of violence; serious illness or injury; and any additional major upheaval. Participants are asked to rate the traumatic nature of each event on a 7-point scale. The CTES and RTES provide descriptive information about adverse experiences and the perceived trauma level of each. The scales have not been empirically validated but have been used in various studies to provide basic screening information on experiences of trauma (Entringer, et al., 2009).

Procedures

The procedures for this study began with the researcher obtaining Institutional Review Board (IRB) approval from the University of North Carolina at Greensboro. The researcher then transferred the survey instruments into an online survey at Survey Monkey. The online survey was organized with the informed consent appearing first, followed by several eligibility questions. The first eligibility question asked the participants to indicate whether they were a female 18 years or older. The next set of three questions, from the CAMI, asked the participant to indicate whether they experienced sexual abuse as a child and/or adolescent. Eligible participants were women 18 years old or older who answered yes to one of the three CAMI questions. Eligible participants then were directed to answer the instruments in the following order: demographics questions, PTG (post-traumatic growth), 5F-Wel (wellness), CD-RISC

(resilience), IES (post-traumatic stress symptoms), and CAMI (child sexual, physical, and emotional abuse, and neglect).

The participants were recruited through the online registry of research volunteers at ResearchMatch.org. ResearchMatch.org is a “registry of volunteers willing to learn more about research studies...ResearchMatch helps bring these two groups together in a secure and convenient way” (ResearchMatch, 2012, home page, "What is ResearchMatch?" section). Once IRB approval was received, the investigator submitted this information to the ResearchMatch website for study recruitment approval. Once approval was received, the investigator searched the volunteer registry for women 18 years and older. Women who met these criteria were sent a standard ResearchMatch email that included a brief description of the current study and asked each woman if they were interested in participating. Interested participants clicked “yes” and their contact information appeared in the researchers’ secure portal. From there, participants were emailed the link to the online survey where they could complete the study instruments. The ResearchMatch contact emails are presented in Appendices F and G.

Once participants completed the survey they were directed to a page that thanked them for participating and provided contact information for the researcher and child sexual abuse support resources. In addition, the participants were given the option to participate in a drawing for a \$30 gift card. The participants had to visit a completely separate online survey to enter the information in for the drawing, thereby ensuring no connection between the personal information and the survey results. All electronic information and materials was password protected and maintained on the researcher’s

computer. All electronic data from the study will be erased three years following the completion of this study.

Data Analysis

The characteristics of the sample were obtained by calculating descriptive statistics on the demographics questionnaire. Estimates of internal consistency were computed for all study variables. Finally, a series of statistical analyses were conducted to address each research question and hypotheses, reported in Table 4.

Table 4

Research Questions, Hypotheses, Variables, and Analyses

Research Question 1: What are the relationships between wellness factors, resilience, post-traumatic growth, and PTS factors among adult women survivors of CSA?

Hypotheses	Variables	Analysis
Hypothesis 1a – There will be a statistically significant positive relationship between wellness factors and PTG.	Wellness factors (DV) Post-traumatic growth (IV)	Pearson Product-moment correlation coefficient
Hypothesis 1b – There will be a statistically significant positive relationship between wellness factors and Resilience.	Wellness factors (DV) Resilience (IV)	
Hypothesis 1c – There will be a statistically significant negative relationship between wellness and PTS factors.	Wellness factors (DV) PTSD factors (IV)	
Hypothesis 1d– There will be a statistically significant negative relationship between PTS factors and resilience.	Resilience (DV) PTS factors (IV)	
Hypothesis 1e – There will be a statistically significant positive relationship between PTS factors and PTG.	Post-traumatic Growth (DV) PTS factors (IV)	
Hypothesis 1f – There will be a statistically significant negative relationship between PTG and resilience.	Post-traumatic growth (DV) Resilience (IV)	

Table 4 (Cont)

Research Question 2 - Are there differences in mean scores of wellness, resilience, post-traumatic growth, and PTS symptoms among adult women survivors of CSA based on perpetrator status?

Hypotheses	Variables	Analysis
<u>Hypothesis 2</u> – There will be statistically significant differences among mean scores on measures of wellness, post-traumatic growth, and resilience among adult women survivors of CSA between women based on perpetrator status (within family vs. outside of family).	Wellness (DV) Post-traumatic growth (DV) Resilience (DV) PTS symptoms (DV) Perpetrator status (IV; nominal)	ANOVA

Research Question 3 – Do factors including current age of participants, additional childhood maltreatment, level of resolution, and age at onset of abuse predict total wellness, post-traumatic growth, resilience, and PTS symptoms?

Hypotheses	Variables	Analysis
<u>Hypothesis 3a</u> – Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict wellness factors, specifically current age will have a significant positive relationship whereas current impact of CSA, additional maltreatment, CSA severity and age of onset will have a significant negative relationship.	Wellness factors (DV) Current age (IV; nominal) Additional childhood maltreatment (IV; nominal) Current impact of CSA (IV; nominal) CSA Severity (IV; nominal) Age at onset of abuse (IV; nominal)	Multiple regressions

Table 4 (Cont)

Hypotheses	Variables	Analysis
<u>Hypothesis 3b</u> – Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict PTG, specifically current age and current impact of CSA will have a significant negative relationship whereas, additional maltreatment, CSA severity, and age of onset will have a significant positive relationship.	Post-traumatic growth (DV) Current age (IV; nominal) Additional childhood maltreatment (IV; nominal) Current impact of CSA (IV; nominal) CSA Severity (IV; nominal) Age at onset of abuse (IV; nominal)	Multiple Regressions
<u>Hypothesis 3c</u> – Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict Resilience, specifically current age, CSA severity, and age of onset will have a significant positive relationship whereas current impact of CSA, additional maltreatment will have a significant negative relationship.	Resilience (DV) Current age (IV; nominal) Additional childhood maltreatment (IV; nominal) Current impact of CSA (IV; nominal) CSA Severity (IV; nominal) Age at onset (IV; nominal)	
<u>Hypothesis 3d</u> – Current age, additional childhood maltreatment, current impact of CSA, CSA severity and age at onset of abuse will predict PTS Symptoms, specifically current age and age of onset will have a significant negative relationship whereas current impact of CSA, CSA severity, and additional maltreatment will have a significant positive relationship.	PTS symptoms (DV) Current age (IV; nominal) Additional childhood maltreatment (IV; nominal) Current impact of CSA (IV; nominal) CSA Severity (IV; nominal) Age at onset of abuse (IV; nominal)	

Table 4 (Cont)

Research Question 4 - What are the 5F-Wel subscale scores and total score of participants, as measured by the 5F-Wel instrument, and how do these compare to general population norms?		
Hypotheses	Variables	Analysis
<u>Hypothesis 4</u> : The 5F-Wel total score and subscale scores of the participants will be lower than the standardized population norms.	Wellness: total wellness scores and 5 subscale scores Standardized population norms for the 5F-Wel	Descriptive statistics z-statistics
Research Question 5 - What proportion of the variance in the wellness of adult women survivors of CSA can be accounted for by resilience and PTG?		
Hypotheses	Variables	Analysis
<u>Hypothesis 5</u> : Resilience and PTG will account for a significant amount of the variance in wellness in adult women survivors of CSA.	Wellness (DV) Resilience (IV) PTG (IV) IES (IV) Additional childhood maltreatment (IV) Coping strategies (IV) Additional demographic variables	Multiple regression

To test hypotheses 1a-f Pearson Product Moment Correlation coefficients were used. To test hypotheses 2a, which looked at the contributions of perpetrator status to outcomes of wellness, PTG and resilience, a MANOVA was used. For hypothesis 3a-d, a series of multiple regressions were used. For hypothesis 4, descriptive statistics and z-statistics were used to compare wellness scores for adult women survivors of CSA to

normative group scores. To test hypothesis 5, which seeks to identify the amount of variance in wellness explained by PTG and resilience, a multiple regression was used.

Pilot Study

Purpose, research questions, and hypotheses. The pilot study was completed to test the procedures and instrumentation and address any issues in these procedures or clarity of the instructions. The research questions described for the full study were analyzed using data collected during the pilot study. Although the sample is too small to allow for conclusions, the results provided information about the feasibility of the larger study and are thus presented below. In addition, the pilot study participants were invited to provide written feedback upon completion of the study instruments. A summary of the feedback from the pilot study participants and the changes suggested are included in the following section. The feedback questions can be found in Appendix D. The reasoning behind the inclusion or exclusion of feedback is also stated here.

Instrumentation. Participants completed a series of online instruments, including a demographics questionnaire, the 5-Factor Wellness Inventory (5F-Wel), the Abridged Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003), the Post-Traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996), the Impact of Event Scale-Revised (Weiss, 2007), the Computer Assisted Maltreatment Inventory (CAMI; DiLillo, et al.; 2006; Nash, et al., 2002), and the Traumatic Events Scale (TES; Pennebaker & Susman, 1988). The participants first completed the demographics questionnaire, followed by the PTG, the 5F-Wel-A, the CD-RISC-10, the IES-R, the TES, and the CAMI. A series of additional questions were included at the end of the

survey, which asked the participants to provide feedback about their experiences completing the online instruments. These questions can be found in Appendix A. Cronbach's alpha coefficients were calculated for the total scores of the 5F-Wel and its corresponding subscales, PTGI, CD-RISC, and IES-R. These results are presented in Table 5.

Table 5

N of Items Per Scale and Alpha Coefficients for 5F-Wel, PTGI, CD-RISC, and IES-R

Instrument/Subscale	Number of Items	Alpha Coefficient
TOTAL WELLNESS	73	.96
Creative	20	.89
Coping	19	.83
Social	8	.70
Essential	16	.86
Physical	10	.94
POST-TRAUMATIC GROWTH INVENTORY - PTG	21	.92
CD-RISC-10 - RESILIENCE	10	.94
IES - PTS SYMPOMS	22	.98
Intrusion	8	.95
Avoidance	8	.93
Hyperarousal	6	.93

Participants. Participants were 19 women over the age of 18 who completed the online survey and reported having experienced CSA. Participants were recruited through two counseling-related listservs and flyers placed at a Houston area women's counseling center. The women's ages ranged from 20 to 70 years old, with a mean age of 38. 14 of the 19 women were Caucasian, 1 was African-American, 1 was Asian, and 2 reported being multi-ethnic. Most of the women (79%) reported having a graduate degree, while the remaining (21%) reported having a bachelor's degree. Additional demographics information is located in Table 6.

Table 6

Demographic Information on the Pilot Study Sample (n = 19)

Variable	<i>n</i>	Percentage
Employment Status	7	36.8
Employed 1-39 hours/week		
Employed 40 or more hours/week	6	31.6
Retired	1	5.3
Student	5	26.3
Income		
<20,000	3	15.8
35-49,999	4	21.1
50-74,999	6	31.6
100-149,999	3	15.8
150,000 or more	2	10.5
Relationship Status		
Single	3	15.8
Married	9	47.4
Divorced	1	5.3
Widowed	1	5.3
Committed relationship	4	21.1
Other	1	5.3
Sexual Orientation		
Heterosexual	15	78.9
Lesbian	1	5.3
Bisexual	3	15.8

Of the 19 participants, only 10 responded to the CAMI questions, which asked specific information about sexual abuse experiences (53%). Each woman was asked to select up to three individuals who had sexually abused them. Of these 10 women, three reported abuse by three different individuals, and three reported abuse by two different individuals, and four reported abuse by one individual. Seven of the 10 women (70%) first experienced CSA prior to the age of 14 and three of the 10 women (30%) experienced CSA between the ages of 14 and 18 years old. The remaining information about the individual perpetrators is presented in Table 7.

Table 7

Child Sexual Abuse Perpetrators Reported in the Pilot Study Sample

Variable	<i>n</i>	Percentage
Abuser 1 (n=10)		
Father	4	40
Stepbrother	1	10
Half brother	1	10
Grandfather	1	10
Male friend of yours	2	20
Female acquaintance	1	10
Abuser 2 (n=6)		
Brother	2	33.33
Male cousin	2	33.33
Male acquaintance	1	16.67
Other male (non-family)	1	16.67
Abuser 3 (n=6)		
Male friend of yours	1	33.33
Male stranger	1	33.33
Other male (non-family)	1	33.33

Note. *10 of the 19 respondents completed the section on CSA experiences

The CAMI also asks questions about the age at which the abuse began. For this small sample, a total of 10 women reported an age of onset for one abuser, 6 reported for a second abuser and 3 reported for a third abuser. Of the women who reported, the majority reported an age of onset during childhood (prior to 14 years old). The exception was that all of the women who reported an age of onset for a third abuser indicated that this began during adolescence (14 years old and older). Table 8 presents this information.

Table 8

Reported Age at Onset of Abuse in Pilot Sample

	Abuser 1		Abuser 2		Abuser 3	
	n	%	n	%	n	%
Onset prior to 14	7	70	4	66.67	0	
Onset between 14 y/o and 18/o	3	30	2	33.33	3	100

Procedures. Permission for completion of the pilot study was submitted to and approved by the University of North Carolina at Greensboro’s Institutional Review Board (#12-0034). Once permission was obtained, an advertisement for participant recruitment was published on the Craigslist website for Houston, Texas and contact was made with a women’s resource center in Houston, TX and a college counseling center in North Carolina about posting flyers for participant recruitment. An additional request for participation was sent to a listserv for counseling professionals. The advertisements and flyers, which can be found in Appendix B, used the same language to describe the study

and its purpose, and instructions for navigating to the online survey. Completion of the survey instruments was estimated to take between 30 and 45 minutes.

Data Analysis and Results. Data analyses were performed as outlined earlier in Chapter III in order to provide an initial look at the research questions and evaluate the study methodology. A total of 19 women participated in the pilot study. Qualitative feedback on the survey instructions and procedures were collected and summarized. Table presents the descriptive statistics for each scale. Next, each hypothesis is presented with the respective results, followed by a summary of the qualitative feedback and more detailed analyses of the statistical results.

Hypotheses 1a-f. A series of Pearson Product-Moment Correlation Coefficients were computed to test hypotheses 1a-f regarding the strength and direction of the relationships between wellness, resilience, PTG, and PTS symptoms. It was hypothesized that there would be a significant positive relationship between total Wellness and PTG, between Resilience and total Wellness, and between PTSD symptoms and PTG. It was also hypothesized that there would be a significant negative relationship between PTG and Resilience, between PTSD symptoms and Wellness and between PTSD symptoms and Resilience. The means and standard deviations for each of the variables were calculated and are displayed in Table 9. One of the correlations between scales was significant. When compared using a one-tailed t-test, total resilience was significantly negatively correlated with post-traumatic stress symptoms ($r = -0.459, p < 0.05$). This result was anticipated. The correlation coefficients are presented in Table 10.

Table 9

Descriptive Statistics for 5F-Wel, PTGI, CD-RISC-10, and IES-R

Instrument/Subscale	<i>M</i>	<i>SD</i>	<i>n</i>
TOTAL WELLNESS	79.10	9.63	17
Creative	81.32	9.12	17
Coping	71.59	12.17	17
Social	88.97	8.57	17
Essential	81.11	11.89	17
Physical	77.79	16.53	17
PTGI - PTG	56.37	22.06	19
CD-RISC-10 - RESILIENCE	39.19	7.88	16
IES-R - PTS SYMPOMS	42.50	22.63	16

Table 10

Correlation Matrix for 5F-Wel and Subscales, PTGI, CD-RISC-10, and IES-R

Instrument/ Subscale	Tot Wel	Creat	Cope	Social	Ess	Phys	PTG	Resil	PTS Symp
Total Wellness	1								
Creative	.91*	1							
Coping	.89*	.79*	1						
Social	.64*	.65*	.56*	1					
Essential	.91*	.77*	.76*	.47	1				
Physical	.69*	.49*	.41	.24	.62*	1			
PTG	.04	.11	-.03	.36	-.16	.23	1		
Resilience	.06	.16	-.14	-.09	.07	.30	.28	1	
PTS symptoms	.18	.14	.17	.18	.03	.30	.28	-.46	1

Note: Tot Wel = Total Wellness; Creat = Creative wellness subscale; Cope = Coping wellness subscale; Ess = Essential wellness subscale; Phys = Physical wellness subscale; PTG = Post Traumatic Growth; Resil = Resilience.

* $p < 0.05$ level.

Hypothesis 2. A MANOVA was used to test whether there were significant differences between wellness and wellness subscales, resilience, and PTG based on age at first abuse perpetrator status (familial vs. non-relatives). No significant results were found, possibly a result of the small sample size. The lack of significant results is likely related to the small numbers in each comparison group. The means and standard deviations are presented in Table 11 and the results of the MANOVAs are presented in Table 12. Therefore based on the results of this analysis with the extremely small sample Hypothesis 2 was unsupported.

Table 11

Means and Standard Deviations of Instrument Scores by Group

Instrument/Subscale	Perpetrator Status			
	Interfamilial		Intrafamilial	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Total Wellness	76.32	5.77	85.45	12.29
Creative Self	79.46	6.45	88.75	13.05
Coping Self	69.17	7.85	77.19	10.95
Social Self	90.18	5.54	90.63	16.24
Essential Self	75.45	7.59	86.70	13.28
Physical Self	73.93	20.41	88.33	12.58
PTG	73.14	16.45	51.33	24.34
Resilience	39.57	7.76	35.33	5.03
Total PTS Symptoms	46.57	23.59	44.67	37.54

Table 12

Multivariate Analysis of Variance and Univariate F Tests for Perpetrator Status

<i>Multivariate Analysis of Variance</i>			
Source	Wilk's Λ	<i>F</i>	Partial η^2
Perpetrator Status	.17	.59	.82

<i>Univariate Analysis of Variance</i>			
Source	Sum of Squares	<i>F</i>	Partial η^2
Age x Total Wellness	174.87	2.79	.26
Age x PTG	998.88	2.84	.26
Age x Resilience	37.72	.73	.08
Age x PTS Symptoms	7.62	.01	.00

Hypothesis 3. This hypothesis examined the relationship between predictor variables current age and age at onset of abuse with outcome variables wellness, post-traumatic growth, resilience, and PTS symptoms (the additional hypotheses for Research Question 3 were added as a result of feedback on the initial pilot study). A series of multiple regressions were used to analyze these relationships. All of the individual multiple regressions were insignificant, likely a result of the very small sample size. The results from the multiple regressions are presented in Tables 13 and 14.

Table 13

Multiple Regression Analysis Predicting Total Wellness, Post-traumatic Growth, and Resilience

Variable	Total Wellness			Post-traumatic Growth			Resilience		
	<i>SE</i>	β	<i>t</i>	<i>SE</i>	β	<i>t</i>	<i>SE</i>	β	<i>t</i>
Current age	.20	-.05	-.17	.04	.03	.09	.19	.22	.56
Age of onset	.68	.60	1.87	1.78	-.57	-1.70	.67	.04	.09
<i>Adj R</i> ²		.16			1.05			-.26	
<i>F</i>		1.80			1.47			.16	

Table 14

Multiple Regression Analysis Predicting Total PTS Symptoms

Variable	Total PTS		
	<i>SE</i>	<i>B</i>	<i>t</i>
Current age	.46	-.60	-2.14
Age of onset	1.57	-.46	-1.64
<i>Adj R</i> ²		.374	
<i>F</i>		3.385	

Hypothesis 4. Descriptive statistics and z-statistics were computed to compare wellness scores of adult women survivors of CSA in this pilot sample to normative adult women scores on the 5F-WEL. The sample means and standard deviations along with the norm means and standard deviations for the 5F-Wel-A are presented in Table 15. The

results of the individual t-tests are presented in Table 16. The results of the analyses were significant for all comparisons except with the comparison of the sample mean of the Coping scale to the norm mean. All of the significant results were counter to what was hypothesized. That is, the sample in this study had significantly higher wellness scores than the norm. This is likely a direct result of the high education level of the women in the sample.

Table 15

Descriptive Statistics for Participants and Norm Group Scores

Instrument/Subscale	Norm		Sample		<i>Possible Range</i>	<i>Observed Range</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
TOTAL WELLNESS	71.97	15.46	79.10	9.63	25.00-100.00	55-97
Creative	73.25	15.13	81.32	9.12	25.00-100.00	63.75-97.47
Coping	68.55	12.61	71.59	12.17	25.00-100.00	71.88-100
Social	78.57	22.52	88.97	8.57	25.00-100.00	71.88-100
Essential	74.51	20.20	81.11	11.89	25.00-100.00	57.81-100
Physical	66.43	18.11	77.79	16.53	25.00-100.00	30-100

Table 16

One-Sample t-tests Comparing 5F-Wel Sample Scores and Norm Scores

Instrument/Subscale	<i>t</i>	<i>df</i>	<i>Mean Dif.</i>
Total Wellness	3.05**	16	7.13
Creative	3.65**	16	8.07
Coping	1.03	16	3.04
Social	5.01**	16	10.40
Essential	2.29*	16	6.60
Physical	2.83*	16	11.36

* $p < 0.05$ level. ** $p < 0.01$ level.

Hypothesis 5. A multiple regression was completed to test whether resilience and PTG scores, along with additional CSA factors, would account for a significant amount of variance in wellness. Since the results of the MANOVAs indicated no significant effects, the additional CSA factors were not entered into the regression analyses. The results of the model where PTG, Resilience, and PTS symptoms were entered was not significant (adjusted $R^2 = -.173$, $F(3, 12) = .261$, $p = .852$). The results of the regression are presented in Table 17.

Table 17

Multiple Regression Analysis of PTG, Resilience, PTS Symptoms, and Current Impact of CSA Predicting Wellness

	Adj. R ²	se	Standard β	t
Model summary	-17			
PTG		.12	-.02	-.08
Resilience		.40	.19	.58
PTS Symptoms		.28	.28	.83

Procedural feedback. The pilot study was conducted to tentatively test the hypotheses and provide information about the viability of the research methodology including instruments and procedures. Further, at the conclusion of the pilot survey, participants were asked to respond to questions related to the clarity of the instructions in the survey and the content of the survey. These open-ended feedback questions were answered by between eight and nine participants and provided useful information about the procedures. A number of the suggestions were integrated as changes in the full study methodology while several others were not. The feedback and the rationale for inclusion or exclusion are described below followed by a review of any additional changes, the pilot study limitations, and a summary.

Integrated feedback. Several participants indicated that instructions in the survey could be improved for greater clarity. The primary change made to increase clarity was the addition of the title “INSTRUCTIONS” for each individual survey, followed by a line break and then the instructions. In addition, in order to be extremely clear about the

nature of the questions related to the child and/or adolescent sexual abuse, the author added the following instructions prior to the CAMI questions:

The next set of questions focuses on the sexual abuse you experienced as a child and/or adolescent. As mentioned in the consent form, these questions may bring up unpleasant memories. If, while participating in this study, concerns arise for you, you may share these with the researcher by calling or emailing the researcher using the contact information listed at the end of the survey. You may also contact the researcher in order to receive a counseling referral and there will be a list of referral resources provided at the end of the survey.

Procedurally, a pattern of completion arose that was worth addressing. Of the 19 participants who began the study, only 10 completed the CAMI questions. This pattern could be the result of participants not wanting to answer uncomfortable questions or could be the result of its placement at the end of the survey. As a result of this pattern, and other identified areas of redundancy, two changes were made to the survey organization. The three initial yes/no CAMI questions were used in the place of the initial eligibility question, thus reducing the number of questions about CSA history. In addition, the Traumatic Event Scale was removed to reduce the length of the survey and because of its redundancy in assessing information that was present in other demographics questions.

Other feedback. Several participants indicated some challenges answering specific questions. One participant indicated that she found the questions with double negatives difficult to answer. Two participants said the questions about abuse history were difficult to answer: one did not explain this further and one said that she would have answered several as yes and no. Finally, one woman said that she felt that she didn't

answer as correctly as possible because some questions did not have the answer she would have put. This feedback pertained to well-established scales with strong reliability and validity so no adjustments were made to the existing scales.

Limitations and additional changes. Several limitations were evident with the pilot study. The primary limitation was the very small sample size and the attrition seen with the sample as discussed previously. These limitations were addressed by making changes to the existing survey order, removing a redundant scale, increasing the sample size to an appropriate level for sufficient power and approaching recruitment in a completely different manner.

Results of the pilot study were somewhat surprising based on the previous research on wellness, PTG, and resilience. Specifically, the relationships between the variables were, for the most part, insignificant and several were in the opposite direction of the hypotheses. Although the relationship between PTS symptoms and Resilience was significant and negative, the remaining relationships involving PTS symptoms were positive. The results may be due issues with the sample. First, the sample was small and relatively homogenous. The homogeneity of the sample was seen across demographics: most of the sample was comprised of heterosexual Caucasian women with graduate degrees and relatively high household incomes. This homogeneity likely affected the wellness outcomes, resulting in higher levels of Total Wellness, and all of the factors of the Self save the Coping Self. With such an unanticipated affect on the wellness outcomes, it is likely that this sample, especially in regards to education and income level, may have also affected outcomes of resilience and PTG and thus the remaining

analyses. The majority of the participants were recruited using a listserv for counseling professionals and educators, one likely reason for the current results. In order to address this limitation, the full study incorporated a completely new approach to recruitment, one that involved a more national and less homogenous sample.

Additional demographics questions were also added to address potential interacting effects. An additional question inquired about activities that may have helped the woman cope with or address the child or adolescent sexual abuse including individual and group counseling, yoga, meditation, and hypnosis among others. This question was followed by a question that asked each woman to indicate the degree to which she feels the sexual abuse experience(s) during her childhood or adolescence negatively affects her today. These two questions were then used in the analyses for the full study. The addition of these demographics will allow for greater specificity in the findings.

Summary. Understanding differential outcomes of child and/or adolescent sexual abuse can inform how counselors understand and work with adult survivors of childhood sexual abuse. This study examined the relationships between a history of sexual abuse, wellness, resilience, and post-traumatic growth and sought to identify the ways in which these are similar or different and how they affect one another. This chapter described the research questions and hypotheses, participant recruitment, instrumentation, procedures, and data analysis. Finally, suggestions deriving from the pilot study were reviewed and resulting adjustments were described.

Critical findings from the pilot study informed changes to the full study. Two limitations arose that were addressed, specifically issues with the sample and attrition of responses. These limitations were addressed by changing the sampling method and by removing redundant questions in the online survey. In addition, concerns with variables that might affect the outcomes, two questions were added to assess coping resources utilized and the current effect of CSA on the participants. The integration of these changes addressed the previous methodology concerns and limitations.

CHAPTER IV

RESULTS

The purpose of this study was to investigate the experiences of wellness, posttraumatic growth and resilience in women survivors of CSA. In Chapter I, the current study and purpose of the research was introduced. Chapter II followed with an in-depth literature review of adult women survivors of CSA and the major constructs wellness, resilience, and post-traumatic growth. In Chapter III, the study methodology was described including the research questions, related hypotheses, and proposed data analysis. In addition, Chapter III also included a description of the pilot study and the data analyses and results of the pilot study. In this chapter, the full study data analyses and results are described. These include specific descriptive information about the study sample and the individual study measures as well as the outcomes for each hypothesis test and related analyses. Finally, a summary of the study findings is provided.

Sample Descriptives

The study sample was recruited using convenience sampling. Volunteers were recruited through the Research Match online recruitment database. Research Match is a “free and secure registry that has been developed by major academic institutions across the country” (welcome/about page) for the purpose of connecting researchers with individuals who are interested in participating in research. The study’s IRB approval was

submitted to the Research Match liaison in order to have the study approved for recruitment. Sample demographics were used to narrow potential participants through several feasibility studies. General participation requests were sent via the Research Match website's protocol to registered women 18 years of age and older. A total of 230 women responded with interest in participating in the current study. Those women were then sent a link to the online survey and 196 of these participants responded to the link for the online survey (85%). Of these, eight answered 'no' to the consent form question about willingness to participate, one individual reported she was not a woman 18 years old or older, and 12 were eliminated because they indicated no history of child or adolescent sexual abuse. An additional 12 were eliminated because they only completed the demographics questions. As a result a total of 163 surveys were used in the data analyses, for a total response rate of 70%.

Demographic information was calculated for the participants in the study sample. Participants' ages ranged from 18 to 81 years old with an average age of 39 years old ($SD = 12.26$). The study sample was largely comprised of Caucasian participants (69%), with smaller numbers of African American (14%), Asian (6%), Hispanic/Latina (6%), and multi-ethnic (4%) participants. The sample contained a similar proportion of participants with a Bachelor's (34%) and Graduate (31%) degree. A slightly lower percentage of participants reported some college but no degree (22%). The majority of the participants reported working 40 hours or more a week (58%). The highest percentage of women was heterosexual (86%). A similar proportion reported being married (35%) and single (29%). The demographics information in its entirety is presented in Table 18.

Table 18

Demographic Information of the Study Sample (n =163)

Variable	<i>n</i>	%
Ethnicity	162	
White/Caucasian	112	68.7
African-American	23	14.1
Multi-ethnic	7	4.3
Asian	10	6.1
Hispanic/Latina	10	6.1
Highest Education	163	
Less than high school	1	.6
High school degree or equivalent	7	4.3
Some college with no degree	36	22.1
Associate degree	14	8.6
Bachelor's degree	55	33.7
Graduate degree	50	30.7
Employment Status	163	
Employed 1-39 hours/week	30	18.4
Employed 40 or more hours/week	94	57.7
Not employed, looking for work	12	7.4
Not employed, NOT looking for work	2	1.2
Retired	2	1.2
Disabled	11	6.7
Student	12	7.4

Table 18 (Cont)

Variable	<i>n</i>	%
Household Income	163	
<20,000	23	14.1
20-34,999	15	9.2
35-49,999	21	12.9
50-74,999	49	30.1
75-99,999	21	12.9
100-149,999	20	12.3
150,000 or more	13	8
Relationship Status	162	
Single	48	29.4
Married	58	35.6
Divorced	21	12.9
Widowed	4	2.5
Separated	5	3.1
Committed relationship	26	16
Sexual Orientation	163	
Heterosexual	140	85.9
Lesbian	7	4.3
Bisexual	12	7.4
Asexual	3	1.8
Don't know	1	.6

Additional demographics characteristics were calculated for specific child sexual abuse information. Questions included coping experiences and perceived level of resolution with the CSA experiences. Participants were asked to choose what coping resources they used to help with their CSA experiences and then to rank the level of

helpfulness of each coping resource. The majority of participants reported attending individual therapy (78%) with varying levels of helpfulness. By and large most of the participants who attended individual therapy reported that therapy was at least moderately helpful with their CSA experiences (60%). Additional strategies utilized by the sample at similar proportions included self-help readings (77%), spirituality or religious activities (71%), and journaling or writing (74%). Of these, more than half of the participants (60%) reported that Spirituality and/or Religion was helpful at a level of moderately or greater, more than half of the participants (59%) who journaled or wrote indicated that this activity was at least moderately helpful, and a little less than half of the participants (49%) who read self-help books indicated these to be at least moderately helpful.

Fewer participants reported involvement in group therapy (42%), yoga (53%), meditation (59%), personal coaching (37%), support groups (47%), volunteering (62%), and hypnosis (29%). The full results of the demographics question about coping approaches are presented in Table 19. About one third of the sample (39%) reported that the experiences of CSA affected them today not at all or only a little bit. Over one fourth of respondents (28%) reported that their CSA experiences moderately affected them today and almost one third (32%) indicated that the CSA experiences continued to affect them quite a bit or extremely.

Table 19

Rate of Helpfulness of Coping Resources Reported in Study Sample

Variable	<i>n</i>	Not At All	A little bit	Modera tely	Quite a bit	Extrem ely
Individual therapy	127	13.4	26.8	20.5	23.6	15.7
Group therapy	69	56.5	26.1	7.2	8.7	1.4
Yoga	87	43.7	29.9	14.9	9.2	2.3
Meditation	96	33.3	30.2	18.8	10.4	7.3
Personal coaching	60	63.3	10.0	10.0	8.3	8.3
Self Help readings	126	21.4	29.4	24.6	16.7	7.9
Spirituality/Religion	116	24.1	15.5	17.2	22.4	20.7
Support Groups	77	57.1	15.6	16.9	2.6	7.8
Volunteering	102	27.5	16.7	27.5	13.7	14.7
Journaling/Writing	121	19.0	22.3	20.7	22.3	15.7
Hypnosis	47	80.9	2.1	4.3	6.4	6.4

Additional specific information about CSA experiences was obtained using the CAMI questions. Each woman was asked to indicate up to three abusers. The women in the sample reported 428 abusers. Almost all of the women designated at least one abuser (94%), a little more than half (55%) indicated a second abuser, and less than a third (29%) indicated a third abuser. The overwhelming majority of abusers were male (89%) with only a small percentage of women reported as abusers (10%). Of the identified abusers, the majority were described as family members or individuals within the family system (66%, 53%, and 51%). The number of times each person was selected as an abuser and the frequencies are listed in Table 20.

Table 20

Perpetrators and Rate of Identified Perpetrators Reported by Study Sample

Perpetrator (<i>n</i> = 428)	First Abuser		Second Abuser		Third Abuser	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Total	154	94.48	90	55.22	47	28.83
Father	14	8.6	2	1.2	3	1.8
Stepfather	15	9.2	1	.6		.6
Foster father	1	.6	6	3.7		
Brother	9	5.5	1	.6	2	1.2
Half brother	3	1.8	2	1.2	1	.6
Step brother	2	1.2	1	.6	2	1.2
Grandfather	9	5.5	3	1.8		
Step grandfather	1	.6	1	.6		
Uncle	16	9.8	5	3.1	6	3.7
Male cousin	15	9.2	11	6.7	1	.6
Other male relative	2	1.2	3	1.8	2	1.2
Male religious leader	1	.6				
Male friend of yours	6	3.7	8	4.9	5	3.1
Male acquaintance	14	8.6	9	5.5	5	3.1
Male friend of family	11	6.7	11	6.7	3	1.8
Male babysitter	5	3.1	1	.6	1	.6
Male teacher	1	.6				
Male stranger	5	3.1	6	3.7	2	1.2
Other male (non-family)	5	3.1	4	2.5	3	1.8
Mother	11	6.7	9	5.5	5	3.1
Stepmother	2	1.2	1	.6	1	.6
Step sister			1	.6		
Female cousin	1	.6	1	.6		
Other female relative	2	1.2	1	.6	1	.6

Table 20 (Cont)

Perpetrator (n = 428)	First Abuser		Second Abuser		Third Abuser	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Female acquaintance	2	1.2			1	.6
Female friend of the family			1	.6		
Female babysitter					1	.6
Female stranger					1	.6
Other female (non-family)	1	.6	1	.6	1	.6
Within family	102	66.23	48	53.33	24	51.06
Outside of family	52	33.77	42	46.67	23	48.94

The majority of participants reported the onset of abuse by the first abuser and second abuser as prior to 14 years of age (83% and 71%). However, the proportion of individuals who were abused prior to age 14 years by the third abuser decreased fairly dramatically (58%). The results for the total demographics analysis of onset of abuse is reported in Table 21.

Table 21

Reported Age at Onset of Abuse in Study Sample

	First Abuser		Second Abuser		Third Abuser	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Onset prior to 14 y/o	124	82.7	63	71.6	26	57.8
Onset between 14 and 18 y/o	26	17.3	25	28.4	19	42.2

A McNemar's chi square test for dependent samples (McNemar, 1947) was conducted to analyze whether there was a significant difference between the proportion of the sample who reported onset prior to age 14 across the three reported abusers. The results were significant indicating that the rate of onset of abuse prior to age 14 was significantly lower with abuser 2 than with abuser 1, $p < .001$; significantly lower with abuser 3 than with abuser 1, $p < .001$; and significantly lower with abuser 3 than with abuser 2, $p = .03$. This result is somewhat expected as one might assume that women would report their first abuser in the first spot and any subsequent abusers under abuser 2 and abuser 3. Although there was a significant drop in rate of reported onset of abuse prior to age 14 across abusers, the women in this sample still reported the onset of abuse prior to age 14 at a higher rate across all abusers.

In addition to demographics information on the abuser and the onset of abuse, the participants were asked to indicate reasons for the termination of abuse. The largest percentages of participants reported that the CSA ended because they moved or left the household (28%) or the participant confronted or resisted the abuser (20%). The remaining reasons for the termination of the abuse occurred at much lower frequencies, including that law officials became aware of the abuse (4%). The rates of the additional reasons for the termination of abuse are reported in table 22.

Table 22

Reported Reasons for the Termination of CSA

Reasons	First Abuser (<i>n</i> = 140)		Second Abuser (<i>n</i> = 77)		Third Abuser (<i>n</i> = 37)		Total (<i>n</i> = 254)	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Activities have not ended	1	.6					1	.6
You moved or left the household	42	25.8	18	11	10	27	70	27.56
The other person moved away or left the household	15	9.2	12	7.4	4	10.8	31	12.20
The other person stopped the activities voluntarily	18	11	22	13.5	6	16.2	46	18.11
The activities became known by another family member or friend	28	17.2	4	2.5	3	8.1	35	13.78
You confronted or resisted the other person	22	13.5	18	11	12	32.4	52	20.47
The other person became involved with someone else	3	1.8	2	1.2	1	2.7	6	2.36
You became involved with someone else	1	.6	0	0	1	2.7	2	0.79
The activities came to the attention of authorities	10	6.1	1	.6	0	0	11	4.33

Results of the CAMI. In addition to the specific questions about CSA experiences, the CAMI includes questions about physical abuse, psychological abuse, and neglect. The four sections on childhood abuse result in separate severity scores that

can then be added for a total score of severity of childhood maltreatment. The possible score range for women reporting instances of CSA are 0 to 165 (indicated when an individual responds that 11 different scenarios occurred more than 10 times with each of three abusers). The physical abuse questions begin with 10 initial yes/no questions about childhood physical abuse where yes answers are worth one point. The remaining physical abuse questions are presented in a similar format to those about CSA in that the women are asked to identify up to three individuals who physically abused them in childhood. Fifteen questions ask about specific incidents with possible scores for each abuser ranging from 15 (when answering *not at all* to every question) to 75 (when answering *more than 10 times* to every question). Following these questions are nine additional questions about injuries related to the physical abuse with scores ranging from 0 to 9 for each abuser. The combined total score for physical abuse can range from 0 to 262.

For psychological abuse, scores can range from 24 (when answering strongly disagree to all 24 questions) to 120 (when answering strongly agree to all 24 questions). For neglect, scores can range from 20 to 100 in the same way. The sum of these three sections can be used to indicate a score of additional childhood abuse. Thus, for the three additional types of abuse, scores can range from 44 (no reported physical abuse, and strongly disagree on all psychological and neglect questions) to 482. The results from the additional CAMI questions are summarized in Table 23. As can be seen from this table, the women in the sample experienced a mean total CSA score of 44.48, a mean total Physical Abuse score of 47.36, a mean Psychological Abuse score of 62.44, a mean Neglect score of 64.85 and a mean total other childhood abuse score of 172.45. The mean

scores were all substantial, but it appears that the women in this sample averaged higher levels of additional forms of childhood abuse than of CSA. This result is supported in the research on adult women survivors of CSA: women who experience CSA are more likely to experience additional forms of abuse during childhood.

Table 23

Additional Childhood Abuse Reported by Study Sample

Abuse Type	<i>n</i>	<i>M</i>	<i>SD</i>	Observed Range	Q ₁	Q ₂	Q ₃
Child Sexual Abuse Total	154	44.48	27.76	2 to 160	24	41	57
Individual 1	154	25.21	12.89	2 to 55	15.75	22	33
Individual 2	90	22.03	11.43	4 to 52	14	18	25.25
Individual 3	47	21.92	11.92	6 to 55	15	18	24
Physical Abuse Total	149	47.36	41.42	0 to 208	19	43	67
Individual 1	117	30.48	15.74	2 to 73	18.5	25	37.5
Individual 2	79	29.37	14.70	5 to 70	20	26	33
Individual 3	22	31.86	16.76	15 to 69	20.75	26	35.75
Psychological Abuse	151	62.44	11.65	35 to 95	53	63	70
Neglect	150	64.85	5.50	44 to 79	62	66	68
TOTAL of Abuse other than CSA	152	172.45	50.45	34 to 337	134	168	200

Instrument Statistics

Four instruments were used in this study: the Five Factor Wellness Inventory Adult (5F-Wel-A) (Myers & Sweeney, 2005a), the Post-Traumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996), the Connor-Davidson Resilience Scale 10 (CD-RISC-10) (Campbell-Sills & Stein, 2007), and the Impact of Event Scale-Revised (IES-R) (D. S. Weiss & Marmar, 1997). The means and standard deviations were calculated for each instrument and relevant subscale. For the study sample, the mean for the Total Wellness factor is 70.73 ($SD = 9.59$) with scores ranging from 46.18 to 89.24. The mean PTGI score for the sample is 45.56 ($SD = 24.93$) with a range from 0 to 99. The CD-RISC sample mean for this study was 27.81 ($SD = 7.79$), with scores comprising the entire possible range for the scale, 0 to 40. Finally, the IES-R mean for the sample is 22.41 ($SD = 20.59$) with a range of 0 to 76. Descriptive statistics for the 5F-Wel-A are presented in the section discussing the results of hypothesis 4 while the descriptive statistics for the remaining instruments are presented in Table 24.

Table 24

Descriptive Statistics for Participants and Norm Group Scores

Instrument	Norm		Sample		Possible Range	Observed Range
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
PTGI			45.69	25.05	0 to 105	0 to 99
CD-RISC-10	31.08	5.56	27.98	7.64	0 to 40	0 to 40
IES-R			22.59	19.72	0 to 88	0 to 70

Note. Normative data is not available for the PTGI or IES-R. PTGI = Post Traumatic Growth Inventory; CD-RISC-10 = Connor-Davidson Resilience Scale 10; IES-R = Impact of Event Scale-Revised.

One-sample t-tests were conducted to determine whether the means of the sample for each instrument differed significantly from the published normative data. No published normative data exists for the PTGI and the authors of the IES-R recommend against normative data for that instrument therefore initially only one t-test was conducted to compare the sample mean for the CD-RISC-10 to the normative data. The results of the one-sample t-test indicated that there was a significant difference between the sample's CD-RISC-10 scores and the normative data, $t(162) = -5.36, p < .001$. The mean difference was equal to -3.27. The current sample was much more variable than the norm group as evidenced by the higher standard deviation.

Reliability statistics for study instruments. Internal consistency was calculated for the four instruments. The 5F-Wel-A total wellness factor demonstrated sound reliability as did the Creative and Essential second order wellness factors. The Cronbach's alpha coefficient for Total Wellness is .94, for the Creative second order

factor .88 and for the Essential second order factor .73. The second order wellness factors of Coping, Social, and Physical were all slightly lower with a range of .53 to .65. The remaining alpha coefficients were all sound: the Cronbach's alpha coefficient for the PTGI scale is .95, for the CD-RISC-10 scale is .91 and for the IES-R scale is .95. The reliability coefficients for the individual IES-R factors ranged from .87 to .93. The internal consistency information for the scales is presented in Table 25.

Table 25

Alpha Coefficients for 5F-Wel, PTG, CD-RISC, and IES

Instrument/Subscale	Number of Items	Norm Alpha Coefficient	Study Alpha Coefficient
5F-Wel - TOTAL WELLNESS	73	.98	.94
Creative	20	.96	.88
Coping	19	.89	.53
Social	8	.96	.58
Essential	16	.95	.73
Physical	10	.90	.65
PTGI - POST-TRAUMATIC GROWTH	21	.90	.95
CD-RISC - RESILIENCE	10	.85	.91
IES-R - PTS SYMPOMS	22		.95
Intrusion	8		.93
Avoidance	8		.87
Hyperarousal	6		.90

Note: There are no IES-R norm scores reported in the literature and the authors do not support the use of norm scores for this instrument. 5F-Wel = Five Factor Wellness Inventory Adult Version; PTGI = Post Traumatic Growth Inventory; CD-RISC-10 = Connor-Davidson Resilience Scale 10; IES-R = Impact of Event Scale-Revised.

Results of Research Hypotheses

In this section, the study hypotheses are reviewed and statistical results of the hypotheses testing conducted for the study is presented. The hypotheses testing involved the following statistical analyses: Pearson Product-moment correlations, MANOVA with post hoc univariate analyses, descriptive statistics, z-scores, and multiple regressions.

Research Question 1 / Hypotheses Set 1. Research question 1 examined the relationships between wellness, PTG, resilience, and PTS symptoms. There were 6 hypotheses related to research question 1 and a series of Pearson Product Moment correlations were used to investigate the individual relationships. Hypothesis 1a and 1b stated that positive correlations would be found among wellness factors and PTG and resilience. Hypotheses 1c and 1d suggested that negative correlations would exist between PTS factors and wellness factors and resilience. In contrast, hypothesis 1e stated that there would be a statistically significant positive relationship between PTS factors and PTG. Finally, hypothesis 1f stated that a significant negative correlation would be found between PTG and resilience, taking into account the argument that with the presence of PTG in an individual would indicate the lack of resilience, as described by Bonanno, et al. (2004), Levine, et al. (2009), and Westphal and Bonanno (2007). These hypotheses were tested using Pearson-Product moment correlations between the 5F-Wel total scale and subscales, the PTGI total scale, the CD-RISC-10 total scale and the IES-R total and subscales. These results are presented in Tables 26 through 28.

It was anticipated that Total Wellness would be positively correlated with PTG and Resilience as described in Hypothesis 1a and 1b. These hypotheses were supported in

that Total Wellness was positively correlated with PTG, $r(161) = .26, p < .01$ and Resilience, $r(161) = .63, p < .01$. The results of the correlations between the individual wellness second order factors and PTG and Resilience were almost all as anticipated. PTG was positively correlated with the Creative subfactor, $r(161) = .32, p < .01$; the Coping subfactor, $r(161) = .21, p < .01$; the Social subfactor, $r(161) = .22, p < .01$; and the Essential subfactor, $r(161) = .20, p < .01$; but not the Physical subfactor, $r(161) = .13, p = .089$. In contrast, Resilience was significantly correlated with each of the wellness subfactors: Creative, $r(161) = .62, p < .01$; Coping, $r(161) = .61, p < .01$; Social, $r(161) = .54, p < .01$; Essential, $r(161) = .53, p < .01$; and Physical, $r(161) = .55, p < .01$.

Hypotheses 1c and 1d were supported as PTS symptoms were negatively correlated with Resilience, $r(155) = -.37, p < .01$, and Total Wellness, $r(155) = -.39, p < .01$. These hypotheses were supported further with an investigation of the correlations between the PTS subfactors of Intrusion, Avoidance, and Hyperarousal, and Resilience, Total Wellness, and the wellness subscales. Intrusion was positively correlated with Resilience, $r(155) = -.33, p < .01$; Total Wellness, $r(155) = -.39, p < .01$; Creative, $r(155) = -.39, p < .01$; Coping, $r(155) = -.34, p < .01$; Social, $r(155) = -.37, p < .01$; Essential, $r(155) = -.34, p < .01$; and Physical, $r(155) = -.29, p < .01$). Avoidance was also positively correlated with Resilience, $r(155) = -.29, p < .01$; Total Wellness, $r(155) = -.28, p < .01$; Creative Self Wellness, $r(155) = -.30, p < .01$; Coping Self Wellness, $r(155) = -.27, p < .01$; Social Self Wellness, $r(155) = -.24, p < .01$; Essential Self Wellness, $r(155) = -.23, p < .01$; and Physical Self Wellness, $r(155) = -.16, p < .05$. Finally, the Hyperarousal subfactor was positively correlated with Resilience, $r(155) = -.40, p < .01$;

Total Wellness, $r(155) = -.40, p < .01$; Creative Self Wellness, $r(155) = -.43, p < .01$; Coping Self Wellness, $r(155) = -.35, p < .01$; Social Self Wellness, $r(155) = -.37, p < .01$; Essential ($r(155) = -.37, p < .01$); and Physical Self Wellness, $r(155) = -.27, p < .01$. As a result, Hypotheses 1c and 1d were fully supported.

Hypothesis 1e was not supported as anticipated because PTG was not significantly positive correlated with total PTS symptoms, $r(155) = .09, p = .271$, or the individual subfactors Intrusion, $r(155) = .07, p = .382$; Avoidance, $r(155) = .109, p = .176$; and Hyperarousal, $r(155) = .054, p = .505$. Finally, in this study, hypothesis 1f was not supported because PTG was not negatively correlated with Resilience as postulated by resilience researchers. In fact the opposite result occurred in that PTG and Resilience had a significant positive correlation, $r(161) = .22, p < .01$.

Table 26

Correlation Matrix for 5F-Wel and Subscales, PTGI and CD-RISC-10

Instrument/ Subscale	<i>Tot Wel</i>	<i>Creat</i>	<i>Cope</i>	<i>Social</i>	<i>Ess</i>	<i>Phys</i>	<i>PTG</i>	<i>Res</i>
Total Wellness	1							
Creative	.96*	1						
Coping	.90*	.83*	1					
Social	.88*	.82*	.74*	1				
Essential	.93*	.85*	.79*	.79*	1			
Physical	.88*	.81*	.75*	.73*	.79*	1		
PTG	.26*	.32*	.21*	.22*	.20*	.13	1	
Resilience	.63*	.62*	.61*	.54*	.53*	.55*	.22*	1

Note: Tot Wel = Total Wellness; Creat = Creative wellness subscale; Cope = Coping wellness subscale; Ess = Essential wellness subscale; Phys = Physical wellness subscale; PTG = Post Traumatic Growth; Res = Resilience.

* $p < .01$ (2-tailed).

Table 27

Correlation Matrix for 5F-Wel and Subscales and IES-R and Subscales

	<i>Tot Wel</i>	<i>Create</i>	<i>Cope</i>	<i>Social</i>	<i>Ess</i>	<i>Phys</i>
Total PTS Symptoms	-.39**	-.40**	-.35**	-.36**	-.34**	-.26**
Intrusion	-.39**	-.39**	-.34**	-.37**	-.34**	-.29**
Avoidance	-.28**	-.30**	-.27**	-.24**	-.23**	-.16*
Hyperarousal	-.40**	-.43**	-.35**	-.37**	-.37**	-.27**

Note: Tot Wel = Total Wellness; Create = Creative wellness subscale; Cope = Coping wellness subscale; Ess = Essential wellness subscale; Phys = Physical wellness subscale; IES-R = Impact of Event Scale-Revised; IES Intrus = Intrusion subscale; IES Avoid = Avoidance subscale; IES Hyper = Hyperarousal subscale.

* $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).

Table 28

Correlation Matrix for IES-R and Subscales and PTGI and CD-RISC-10

	<i>Tot PTS</i>	<i>Intrus</i>	<i>Avoid</i>	<i>Hyper</i>	<i>PTG</i>	<i>Res</i>
Total PTS Symptoms	1					
Intrusion	.93**	1				
Avoidance	.87**	.67**	1			
Hyperarousal	.91**	.88**	.65**	1		
PTG	.09	.07	.11	.05	1	
Resilience	-.37**	-.33**	-.29**	-.40**	.22**	1

Note. Tot PTS = Total PTS symptoms; Intrus = Intrusion subscale; Avoid = Avoidance subscale; Hyper = Hyperarousal subscale. PTG = Post Traumatic Growth; Res = Resilience.

* $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).

Research Question 2 / Hypothesis 2. Research question 2 asked about the differences in mean scores of wellness factors, resilience, post-traumatic growth and PTS symptoms based on perpetrator status, which was analyzed using a multivariate analysis of variance (MANOVA). Family members were classified as any relative (i.e. uncle, cousin, etc) as well as any individual considered a relative based on living in the home (foster parent or sibling; step-parent or step-sibling). Intrafamilial individuals were all other individuals reported as abusers. Table 29 presents mean scores and standard deviations based on the factor for the first abuser, Table 30 presents the results for the second abuser and Table 31 presents the results for the third abuser.

Table 29

Means and Standard Deviations of Instrument Scores by Group for First Abuser

Instrument/Subscale	Interfamilial <i>n</i> = 102		Non-relative <i>n</i> = 51	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
5F-Wel	70.72	9.06	71.65	9.81
PTGI	44.16	24.13	45.92	26.09
CD-RISC-10	28.19	6.79	28.51	8.15
IES-R	25.76	20.09	15.55	16.56
Intrusion	8.47	7.96	3.84	5.06
Avoidance	11.42	7.96	8.53	8.32
Hyperarousal	5.87	6.33	3.18	4.87

Table 30

Means and Standard Deviations of Instrument Scores by Group for Second Abuser

Instrument/Subscale	Interfamilial <i>n</i> = 46		Non-relative <i>n</i> = 42	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
5F-Wel-A	71.24	8.29	69.42	9.28
PTGI	51.33	21.17	50.07	22.51
CD-RISC-10	28.87	6.44	26.98	8.84
IES-R	27.96	20.71	24.21	19.72
Intrusion	8.98	8.05	7.29	7.59
Avoidance	12.35	8.41	11.6	7.75
Hyperarousal	6.63	6.48	5.33	6.34

Table 31

Means and Standard Deviations of Instrument Scores by Group for Third Abuser

Instrument/Subscale	Interfamilial <i>n</i> = 23		Non-Relative <i>n</i> = 23	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
5F-Wel-A	70.47	8.30	68.61	9.59
PTGI	49.74	20.91	46.57	21.86
CD-RISC-10	28.13	7.09	25.61	9.72
IES-R	29.30	18.72	26.39	19.83
Intrusion	9.52	7.81	7.35	7.02
Avoidance	13.30	7.85	13	8.25
Hyperarousal	6.48	6.66	6.04	6.23

Hypothesis 2 proposed that there would be a statistically significant mean difference among scores of wellness factors, resilience, post-traumatic growth, and PTS symptoms based on the perpetrator status. A post hoc power analysis was conducted using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007) for the results by abuser. Using an effect size of .5, the post hoc analysis of the First Abuser resulted in a power of .90, a power of .76 for the Second Abuser, and a power equal to .51 for the Third Abuser. The post hoc analysis indicates that there is not enough power to analyze the relationships of the third abuser. Based on the appropriate post hoc level of power, a MANOVA was conducted with level (interfamilial, intrafamilial) as the independent variable and wellness factors, PTG, resilience, and PTS symptoms as the multiple dependent variables for the First and Second Abusers. The hypothesis was supported as stated for the First Abuser, Wilks' Lambda $F(1, 153) = 3.12, p = .017$, but not for the Second Abuser, Wilks' Lambda $F(1, 88) = 1.06, p = .38$. As a result of these findings, a review of follow-up univariate F tests of between subjects effects was conducted for the First Abuser. The results of this analyses found statistically significant differences for the First Abuser between abuse perpetrated by a family member and by a non-relative on mean scores of total PTS symptoms, $F(1, 153) = 9.83, p = .002$. The observed power for this result was .91 for this effect. The effect sizes for the univariate analyses as measured by *partial eta*² are presented along with the remaining results in Table 32.

Table 32

Multivariate Analysis of Variance and Univariate F Tests for Perpetrator Status for the First Abuser

<i>Multivariate Analysis of Variance</i>			
Source	Wilk's Λ	F	Partial η^2
Perpetrator Status	.92	3.12*	.08
<i>Univariate Analysis of Variance</i>			
Source	Sum of Squares	F	Partial η^2
Perpetrator x Total Wellness	56.59	.63	.00
Perpetrator x PTG	12.17	.22	.00
Perpetrator x Resilience	31.54	.05	.00
Perpetrator x PTS Symptoms	4278.50	11.01**	.07

* $p < .05$. ** $p < .01$

Research Question 3 / Hypotheses Set 3. Research question 3 examined the relationship between predictor variables current age, additional childhood maltreatment, reported current impact of CSA, CSA severity, and age at onset of abuse with outcome variables Total Wellness, PTG, Resilience, and PTS symptoms. A series of multiple regressions were used to analyze these relationships. All of the individual multiple regressions were significant except in the case of PTG. Table 33 presents the results of the multiple regressions predicting total wellness, PTG and resilience. Tables 34 and 35 present the results of the multiple regressions predicting the second order wellness factors.

Table 33

Multiple Regression Analysis Predicting Total Wellness, Post-traumatic Growth, and Resilience

Variable	Total Wellness			Post-traumatic Growth			Resilience		
	<i>SE</i>	β	<i>t</i>	<i>SE</i>	β	<i>t</i>	<i>SE</i>	β	<i>t</i>
Current age	.06	-.04	-.56	.17	.10	1.24	.05	.07	.94
Add. child maltreatment	.01	-.12	-1.55	.04	-.05	-.63	.01	-.15	-1.91
Current Impact	.63	-.33	-4.28**	1.77	.09	1.08	.52	-.29	-3.71**
CSA severity	.03	-.09	-1.14	.08	.19	2.40*	.02	.00	-.06
Age of onset	.18	-.06	-.74	.50	.00	-.06	.15	-.05	-.71
<i>Adj R</i> ²		.13			.03			.08	
<i>F</i>		5.65**			2.08			3.88**	

* $p < 0.05$ level. ** $p < 0.01$ level.

Table 34

Multiple Regression Analysis Predicting Wellness Second Order Factors: Creative, Coping, and Social

Variable	Creative			Coping			Social		
	<i>SE</i>	<i>B</i>	<i>t</i>	<i>SE</i>	β	<i>t</i>	<i>SE</i>	β	<i>t</i>
Current age	.08	.00	.01	.04	-.09	-1.20	.07	-.06	-.87
Add. child maltreatment	.02	-.09	-1.19	.01	-.07	-.92	.02	-.10	-1.37
Current Impact	.85	-.35	-4.67**	.48	-.22	-2.90**	.76	-.28	-3.71**
CSA severity	.04	-.04	-.49	.02	-.10	-1.28	.03	-.10	-1.26
Age of onset	.24	-.07	-.86	.13	.03	.38	.21	-.14	-1.86
<i>Adj R</i> ²		.12			.08			.11	
<i>F</i>		5.44**			3.59**			4.96**	

$p < 0.05$ level. ** $p < 0.01$ level.

Table 35

Multiple Regression Analysis Predicting Wellness Second Order Factors: Essential and Physical

Variable	Essential			Physical		
	<i>SE</i>	<i>B</i>	<i>t</i>	<i>SE</i>	β	<i>t</i>
Current age	.06	-.04	-.56	.07	-.03	-.45
Add. child maltreatment	.06	-.16	-2.18*	.02	-.22	-1.50
Current Impact	.66	-.30	-4.01**	.74	-.26	-3.39**
CSA severity	.03	-.10	-1.33	.03	-.12	-1.48
Age of onset	.18	-.04	-.58	.21	-.06	-.73
<i>Adj R</i> ²		.13			.09	
<i>F</i>		5.97**			4.27**	

p < 0.05 level. ** *p* < 0.01 level.

Hypothesis 3a investigated the relationships between wellness factors and various predicting factors. The five predicting variables accounted for a significant proportion of the variance in Total Wellness, adjusted $R^2 = .13$, $F(5, 160) = 5.65$, $p < .001$, and each of the five wellness subfactors. Together, the five predicting variables accounted for about 12% of the variance in total wellness, with current impact of CSA experiences accounting for a significant portion of the variance, $\beta = -.33$, $t = -4.28$, $p < .001$. The results indicate that this hypothesis is partially supported, specifically as it relates to the relationship between the reported current impact of CSA and wellness. It was hypothesized that as the reported current impact of CSA increased wellness would decrease and the results support this relationship. In further examination of the relationship between the predicting variables and the individual wellness subfactors, a similar result arose. The

individual subscales were significantly predicted by the set of variables, with the variance accounted for ranging from 7% to 13%. With each wellness subfactor, reported current impact of CSA again had a significant negative relationship.

Hypothesis 3b and 3c examined the relationship between the aforementioned predictor variables and PTG and Resilience. The results of the multiple regressions were not significant for PTG, adjusted $R^2 = .03$, $F(5, 160) = 2.08$, $p = .071$, but were significant for Resilience, adjusted $R^2 = .08$, $F(5, 160) = 3.88$, $p = .002$. Again, the reported current impact of CSA experiences accounted for a significant amount of the variance in Resilience, $\beta = -.29$, $t = -3.71$, $p < .001$, in the anticipated direction. Thus, Hypotheses 3b was not supported while hypothesis 3c was partially supported.

Finally, hypothesis 3d stated that current age and age of onset would have a significant negative relationship with PTS symptoms while current impact of CSA experiences, CSA severity, and additional childhood maltreatment would have a positive relationship with PTS symptoms. The results of the multiple regression analysis partially supported the hypothesis. The five predictor variables accounted for about 36% of the variance in total PTS symptoms, adjusted $R^2 = .36$, $F(5, 160) = 19.03$, $p < .001$; 27% of the variance in Intrusion symptoms, adjusted $R^2 = .28$, $F(5, 160) = 13.14$, $p < .001$; 28% of the variance in Avoidance symptoms, adjusted $R^2 = .28$, $F(5, 160) = 13.46$, $p < .001$; and 33% of the variance in Hyperarousal symptoms, adjusted $R^2 = .34$, $F(5, 160) = 17.22$, $p < .001$. The reported current impact of CSA accounted for a significant portion of the variance in total PTS symptoms and each of the subfactors in the anticipated direction. These results are presented in Table 36.

Table 36

Multiple Regression Analysis Predicting PTS Symptoms

Variable	Total PTS			Intrusion			Avoidance			Hyperarousal		
	SE	B	t	SE	β	t	SE	β	t	SE	β	t
Current age	.11	-.13	-1.91	.04	-.11	-1.61	.04	-.12	-1.73	.03	-.11	-1.59
Add. child maltreatment	.03	.12	1.85	.01	.13	1.80	.01	.04	.62	.01	.18	2.70**
Current impact	1.11	.54	8.29**	.45	.46	6.56**	.49	.51	7.39**	.35	.50	7.57**
CSA severity	.05	.14	2.12*	.02	.16	2.25*	.02	.09	1.32	.02	.14	1.99*
Age of onset	.31	-.04	-.67	.13	-.03	-.41	.14	-.04	-.62	.10	-.05	-.71
<i>Adj R</i> ²	.36			.27			.28			.34		
<i>F</i>	19.03**			13.14**			13.46**			17.22**		

**p* < 0.05 level. ** *p* < 0.01 level.

Research Question 4 / Hypothesis 4. Research question 4 inquired about the possible differences between wellness scores of the study sample and the normative data available for the 5F-Wel. The means and standard deviations were calculated for the entire 5F-Wel and each of the five subscales. This data is presented in Table 37.

Table 37

Descriptive Statistics for Participants and Norm Group Scores

Instrument/Subscale	Norm		Sample		Possible Range	Observed Range
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
TOTAL WELLNESS	71.97	15.46	70.96	9.39	25.00-100.00	46.18-89.24
Creative	73.25	15.13	69.71	12.70	25.00-100.00	35.00-93.75
Coping	68.55	12.61	69.14	6.97	25.00-100.00	52.63-84.21
Social	78.57	22.52	74.24	11.18	25.00-100.00	43.75-100.00
Essential	74.51	20.20	71.55	9.93	25.00-100.00	39.06-93.75
Physical	66.43	18.11	73.64	10.90	25.00-100.00	44.44-100.00

The hypothesis for research question 4 stated that the 5F-Wel mean scores would differ significantly, with the sample scores being significantly lower. One-sample t-tests were conducted to determine whether the means of the sample differed significantly from the published normative data. The hypothesis was partially supported. The results of the one-sample t-tests indicated that there were significant differences between the sample's Creative, Social, Essential, and Physical subscale scores and the normative data. The results for the Creative subscale, $t(160) = -3.53, p < .001$, the Social subscale, $t(160) = -4.91, p < .001$, and the Essential subscale, $t(160) = -3.79, p < .001$, were consistent with the anticipated results. However, the sample's mean score on the Physical subscale was significantly higher than the normative subscale score, $t(160) = 8.40, p < .001$, an unanticipated result. Results of the one-sample t-tests are presented in Table 38.

Table 38

One-sample t-tests Comparing 5F-Wel Sample Scores and Norm Scores

Instrument/Subscale	<i>t</i>	<i>df</i>	<i>Mean Dif.</i>
Total Wellness	-1.36	160	-1.01
Creative	-3.53*	160	-3.53
Coping	1.07	160	.59
Social	-4.91*	160	-4.33
Essential	-3.79*	160	-2.96
Physical	8.40*	160	7.21

* $p < 0.01$ level.

Hypothesis 5 / Research Question 5. The final hypothesis further explored the relationship between PTG, Resilience, PTS symptoms and Wellness along with several potential predictive factors. To test this question, hypothesis 5 stated that PTG, Resilience, PTS symptoms and additional factors would account for a significant amount of variance in wellness scores of the women in the sample. The additional factors were decided upon partially based on previous analyses. The results of hypothesis 3a indicated that only one additional factor in this study had an effect on wellness scores. As a result of these analyses and the demographic results, current impact of CSA, level of education, and income were controlled for in the analyses.

A hierarchical multiple regression with two steps was conducted. In the first block, current impact, income, and education were entered in order to control for these factors. In the second block, the predictor variables of PTG, Resilience, and PTS symptoms were entered. The results of the first model were significant, adjusted $R^2 = .18$,

$F(3, 160) = 12.89, p < .001$ as well as the second model, adjusted $R^2 = .50, F(6, 160) = 34.57, p < .001$. The R^2 change was .32 with the addition of PTG, Resilience, and PTS symptom. As hypothesized, PTG, $\beta = .19, t = 3.25, p < .001$ and Resilience, $\beta = .49, t = 7.91, p < .001$, accounted for a significant portion of the variance in Total Wellness. However, PTS symptoms did not significantly contribute to the variance in Total Wellness. Therefore, PTG and Resilience had a significant positive effect on Total Wellness above and beyond income, education, or reported current impact of CSA. Table 39 contains these results.

Table 39

Multiple Regression Analysis of PTG, Resilience, and PTS Symptoms Predicting Wellness

	Adj. R^2	se	Standard β	t
Model 1 summary	.18**			
Current Impact of CSA		.60	-.31	-4.31**
Education		.56	.19	2.48*
Income		.39	.14	1.87
Model 2 summary	.50**			
PTG		.02	.19	3.25**
Resilience		.08	.49	7.91**
PTS Symptoms		.03	-.07	-1.01

* $p < 0.05$ level. ** $p < 0.01$ level.

In an effort to further clarify these relationships, follow-up regressions were run with each of the second order Wellness factors. The results of these analyses were all significant. The primary results from these analyses are presented in Table . Even when controlling for Current Impact of CSA, Education, and Income, it was still evident how much these affected the second order wellness factors. Notably, all of these affected Creative Self and Physical Self wellness, while income alone affected Coping Self and Social Self wellness. Of the controlled factors, Current Impact of CSA was the only significant contributor to Essential Self wellness in the final models.

When controlling for the two demographics variables and Current Impact of CSA, Resilience, PTG, and PTS symptoms contributed to significant amounts of the variance in Creative Self, adjusted $R^2 = .53$, $F(6, 160) = 38.40$, $p < .001$; Coping Self, adjusted $R^2 = .43$, $F(6, 160) = 29.71$, $p < .001$; Social Self, adjusted $R^2 = .38$, $F(6, 160) = 20.44$, $p < .001$; Essential Self, adjusted $R^2 = .36$, $F(6, 160) = 18.19$, $p < .001$; and Physical Self, adjusted $R^2 = .37$, $F(6, 160) = 19.39$, $p < .001$. All of the regression results are presented in Table 40. In this series of analyses, Resilience and PTG contributed to significant amounts of the variance in all of the second-order factors except the Physical Self. Resilience was the only significant predicting factor for Physical Self Wellness.

Table 40

Multiple Regression Analysis of the Final Model of PTG, Resilience, and PTS Symptoms Predicting Second Order Wellness Factors

	Adj. R ²	R ² Change	se	Standard β	T
Creative Self Model	.53**	.34			
Current Impact of CSA			.76	-.17	2.62**
Education			.58	.16	2.88**
Income			.41	.11	1.98*
PTG			.03	.27	4.69**
Resilience			.10	.45	7.38**
PTS Symptoms			.04	-.10	-1.51
Coping Self Model	.43**	.32			
Current Impact of CSA			.46	-.05	-.68
Education			.35	.11	1.77
Income			.25	.13	2.10*
PTG			.01	.12	1.99*
Resilience			.06	.52	7.75**
PTS Symptoms			.02	-.10	-1.32
Social Self Model	.38**	.23			
Current Impact of CSA			.76	-.14	-1.85
Education			.59	.10	1.60
Income			.41	.18	2.74**
PTG			.03	.16	2.53*
Resilience			.10	.42	6.00**
PTS Symptoms			.04	-.07	-.98
Essential Self Model	.36**	.22			
Current Impact of CSA			.69	-.19	-2.40*
Education			.53	.11	1.71
Income			.37	.12	1.79
PTG			.02	.15	2.28*
Resilience			.09	.41	5.82**
PTS Symptoms			.04	-.04	-.58

Table 40 (Cont)

	Adj. R ²	R ² Change	se	Standard β	t
Physical Self Model	.37**	.23			
Current Impact of CSA			.75	-.16	-2.04*
Education			.58	.15	2.33*
Income			.41	.15	2.35*
PTG			.03	.05	.83
Resilience			.10	.49	6.98**
PTS Symptoms			.04	-.05	.73

* $p < 0.05$ level. ** $p < 0.01$ level.

Summary of Results

The purpose of this chapter was to test the hypotheses derived from the five research questions as described in Chapters 1 and 3. Research question 1 explored the relationships between the variables Wellness, Resilience, PTG, and PTS symptoms, and the associated hypotheses were partially supported. As anticipated, significant positive correlations were found between Total Wellness and PTG, and Total Wellness and Resilience. Resilience was positively correlated with each of the individual wellness subfactors while PTG had a positive correlation with all of the subfactors save Physical Self Wellness. In full support of hypothesis 1c and 1d, significant negative correlations were found between total PTS symptoms and each of the subfactors and Resilience, as well as total PTS symptoms and each of the subfactors and total Wellness and each of the wellness subfactors. In contrast, PTG and PTS symptoms were not significantly correlated. Finally, the last hypothesis for research question 1 proposed that PTG and resilience would have a significant negative correlation, in line with resilience research,

but the results were to the contrary. In this sample, there was a significant positive correlation between PTG and Resilience.

Research questions 2 and 3 explored the mechanisms which might affect wellness, resilience, PTG and PTS symptoms in adult women survivors of CSA. Hypothesis 2 investigated how perpetrator status might affect these. Frequently experiencing abuse at the hands of a relative is considered more severe and thus more likely to affect outcomes: however, in this study that was not the case. No significant differences existed between women who were abused by a relative and women who were abused by a person outside of the family. Hypotheses 3a through 3d examined the effects current age, additional childhood maltreatment, current impact of CSA, CSA severity and age of onset of abuse would have on wellness factors, resilience, PTG, and PTS symptoms. Overwhelmingly current impact of CSA experiences accounted for a significant portion of the variance in the wellness factors, resilience, and PTS symptoms. Hypothesis 3b, which stated that the predictors would account for a significant amount of variance in PTG, was the only one of the four that was not supported at least partially. With this series of analyses, the predictors had the strongest relationship with PTS symptoms. In addition to current impact of CSA, CSA severity and additional childhood maltreatment accounted for a significant portion of the variance in total PTS symptoms, Intrusion, and Hyperarousal.

Research question 4 asked about the differences between wellness normative data and the wellness results of the sample. The results of the corresponding hypothesis testing were partially supportive of the hypothesis that women in the study would have

significantly lower mean scores of wellness as compared to the normative data.

Significant differences were found between the sample's Creative, Social, Essential, and Physical subscale scores and the normative data as anticipated. However, in contrast to the hypothesis, the sample's mean score on the Physical subscale was significantly higher than the normative subscale score.

The final research question sought to further clarify how wellness factors were affected in this sample of women. It was hypothesized that variance in wellness would be significantly affected by resilience, PTG, PTS symptoms, and current impact of CSA above and beyond additional childhood maltreatment and demographics variables. The results were partially supportive of this hypothesis. Resilience and PTG were significant predictors of the variance in wellness but PTS symptoms and current impact of CSA were not. These results will be discussed in the next chapter, with specific attention to interpretation of the findings, limitations of the study, and implications for future research.

CHAPTER V

DISCUSSION AND IMPLICATIONS

In this chapter, an overview of the study is presented to provide a framework for a discussion of the results from the hypotheses testing. This framework is followed by an in-depth description of the findings presented in the context of the literature that include interpretations and further explanations of the results. Following the interpretation of the results, potential limitations of the study are explored. The last part of this chapter includes a discussion of the implications of the study for counselors and counselor educators and recommendations for future research.

Overview

The purpose of this study was to begin an exploration into alternate outcomes for adult women survivors of CSA. As it stands, researchers in the area of CSA have focused largely on the negative outcomes associated with CSA. The result has been the production of an abundance of findings on the various negative outcomes of CSA. However, this focus on negative effects has not led to a greater understanding of how to support survivors, nor has it helped foster survivor's strengths. As counselors we choose to find and foster strengths in our clients and in doing so, hope to improve their overall wellness and quality of life.

With our profession in mind and in consideration of calls for research that encompasses all trajectories of survival, three alternative approaches to framing survival were presented in chapter one: wellness, PTG, and resilience. A study was designed to explore the relationship between the three constructs and additional constructs related to the experience of CSA including PTS symptoms and CSA severity. The goals of the study were to a) assess the wellness, PTG and resilience in a sample of adult women survivors of CSA, b) examine how these three constructs relate, c) determine if the constructs are consistent with theoretical conceptualizations and normative data presented in current research, d) explore what specific aspects of CSA, if any, affect these constructs and relationships, and e) identify which of the factors ultimately affect wellness.

The results of the analyses were presented in Chapter IV and were relatively supportive of the research study hypotheses. Results of the hypotheses tests for research question one were mostly supportive of the anticipated relationships. Specifically, Total Wellness was positively associated with PTG and Resilience and was negatively associated with PTS symptoms. The second order wellness factors were all positively associated with Resilience and all but Physical Self Wellness were positively associated with PTG. As anticipated, PTS symptoms and Resilience were negatively associated. However, PTS symptoms were not significantly associated with PTG and the positive direction of the relationship, though insignificant, was unexpected. The final relationship analyzed in this set of hypotheses was not supported: Resilience and PTG were positively associated rather than negatively associated.

The results of the hypothesis testing for Research Question 2 indicated that the hypothesized effect of perpetrator status (within family or outside of family) was partially supported: with first abusers, women abused by relatives had significantly higher PTS symptoms. The hypotheses testing for Research Question 3 indicated that the reported current impact of CSA on the women's lives was by and far the most predictive of Total Wellness, second order wellness factors, Resilience, and PTS symptoms. The predictors had the most effect on PTS symptom: as the current impact of CSA, CSA severity, and additional childhood maltreatment increased, so did PTS symptoms. In contrast, the regression was not significant for PTG. Findings for hypothesis 4 indicated that the women in the study sample had significantly lower Creative, Social, and Essential Self wellness and significantly higher Physical Self wellness than the normative group of women. Finally, the results of hypothesis five were partially supported as Resilience and PTG had a significant effect on the variance in Total Wellness. The subsequent section includes a review of the descriptive statistics for the participants and reliability results of the instruments followed by an in depth discussion of each of the five hypotheses.

Participants

The study participants consisted of a total of 196 adult women recruited through a national search of the Research Match database. Of the 196, 175 eligible women responded and agreed to participate in the online survey, providing a final response rate of 89%. Only 12 of the 175 women failed to complete the survey. The small number who did not complete the survey made it impossible to analyze the differences between those who completed the survey and those who did not.

Several prominent demographic characteristics of the study sample are worth further exploration. The majority of the sample was Caucasian (68.7%), heterosexual (85.9%), employed full time (57.7%), and held at least a bachelors degree (63.7%). A large proportion of the women were married (35.6%) and more than half of the women had a total annual household income greater than \$50,000 (63.3%). The context of this sample then is one of mostly white, heterosexual, college-educated, middle class, employed women. This context is important when considering the generalizability of the results and may have affected the outcome of the hypotheses testing. Of note, however, the results of the demographics questions regarding CSA were consistent with previous research and demonstrated somewhat expected variability in responses. For example, the majority of reported abusers were male (89.49%) and there was a slightly larger percentage of abusers who were family members (59.79%) compared to non-family members (40.21%). Further, consistent with published research (see Banyard, et al., 2008; Briere & Jordan, 2009; Carlson, et al., 2003; Dennerstein, et al., 2004), experiences of additional childhood abuse occurred with frequency in the study sample: 152 women answered the questions about additional childhood maltreatment, 99.3% of whom reported a total additional childhood abuse score on the CAMI of at least 96. Thus the sample was somewhat homogenous in regards to basic demographics but demonstrated appropriate variability in CSA and additional childhood abuse experiences. This demographic information would seem to suggest that the sample results may be tentatively generalized to the larger population of adult women survivors of CSA.

Instruments

The study investigation was built upon four primary instruments. The 5F-Wel-A (Myers & Sweeney, 2005), an evidence-based scale grounded in counseling theory, was used to measure the Total Wellness and second order factors of wellness of the study participants. Congruent with Tedeschi and Calhoun's (1995) conceptualization of post-traumatic growth, the PTGI (Tedeschi & Calhoun, 1996) was used to measure post-traumatic growth. The CD-RISC-10 (Campbell-Sills & Stein, 2007) assessed resilience defined as a multidimensional characteristic in the study sample. Finally, the IES-R (Weiss & Marmar, 1997) was used to measure PTS symptoms. In addition to these primary instruments, the CAMI was used to assess all childhood abuse and to provide severity information for CSA and additional childhood maltreatment. Reliability coefficients were calculated for each scale and descriptive statistics were used to determine if differences existed between normative data and the sample responses on the major instruments.

The 5F-Wel demonstrated somewhat questionable reliability: specifically, the reliability for the Total Wellness factor was excellent ($\alpha = .936$), while the reliabilities of the 5 second order factors ranged from low to good. The second order factors Coping Self and Social Self demonstrated the most problematic reliabilities ($\alpha = .531$ and $\alpha = .581$, respectively) while the reliability coefficient for the Physical Self scale was questionable ($\alpha = .646$). A review of outliers provided some clarification to the reliability analysis. In the analysis of the univariate outliers, the majority of the standardized scores fell within 3 standard deviations of the means. However, one outlier fell more than 3 standard

deviations below the mean for the Coping Self scale. This participant also was an outlier on the IES-Intrusion scale and appears to have very low scores across many of the scales. A follow-up computation of the Mahalanobis Distances found no multivariate outliers in the data set. An analysis of normality was performed to examine the skewness and kurtosis. The results revealed that all of the scales fell within the normal range for both skewness and kurtosis. However, upon review of the histograms and scatterplots for each scale, potential reasons for the reliability concerns emerged. Both the Coping Self scale and the Social Self scale are slightly skewed to the right and the histogram for the Physical Self scale showed a multimodal distribution. It appears that a large number of participants scored just above and just below the mean, indicating that the group was somewhat split on this scale. Overall, the low reliabilities suggest that the current sample differed in some ways from the normative sample for the 5F-Wel; hence results using the second order factors need to be interpreted with caution.

The remaining three scales used in the study, the PTGI, the CD-RISC-10 and the IES-R, demonstrated good reliability. A normality analysis with attention to skewness and kurtosis indicated that all three scales fell within the normal distribution. A review of the histograms revealed that the CD-RISC-10 scale had a slight negative skew while the IES-R had a slight positive skew. In the analysis of univariate outliers, only two outliers fell more than 3 standard deviations above the mean and both were for the Intrusion scale of the IES-R. In addition to having below average scores on each of the other scales, the participant who was an outlier on the Coping Self scale and the Intrusion scale had the highest CSA severity score of the entire sample and one of the highest total additional

childhood maltreatment scores. The other outlier on the Intrusion scale reported that the CSA experiences she had still affect her extremely today and she had below the mean scores on every other scale. Through the case analysis, it appears these two women report a more significant impact of CSA still than the average woman in the sample. The only scale of the three that has published normative data is the CD-RISC-10 and in a comparison to the normative data, the women in this study had significantly lower resilience scores.

In summary, scores of the participants on the various scales were similar to those of published norm groups. A decision was made to remove the two identified outliers in the analyses to reduce their effects on the normality assumptions of this analysis. The removal of the outliers did not result in significant changes in the means and standard deviations of each of the scales. However, removal did affect results, specifically the magnitude of the correlations,

Discussion of Hypotheses

Hypotheses one (a-f). The first set of hypotheses tested multiple relationships between the primary study variables. The majority of the hypotheses associated with research question 1 were supported. Positive associations were found between Total Wellness, all of the Wellness subscale factors save the Physical Self subscale, and PTG. The positive correlations between wellness and PTG support the descriptions of PTG by Calhoun and Tedeschi (2006b): as described, PTG involves dimensions of personal growth including perception of self, relationships with others, and philosophy of life. PTG had the strongest positive correlation with the Creative Self second-order factor.

The Creative Self is comprised of Thinking, Emotions, Control, Positive Humor, and Work, constructs directly related to coping, mental functioning, and relationships with others. Although it was hypothesized that PTG would have a significant positive association with Physical Self Wellness, the results of the analysis were not significant. This finding may highlight the focus of PTG on cognitive and emotional processes rather than behaviors (Tedeschi, et al., 1998b).

The strong positive associations found between Total Wellness, the Wellness subscale factors, and Resilience are consistent with research. Specifically, initial research on resilience identified environment, relationships, social support, cognitive processes and behaviors as key processes (Bogar & Hulse-Killacky, 2006; Collishaw, et al., 2007; Edmond, et al., 2006; Friedman, 2007; Ligiero, et al., 2009; Menna, 2008; Singleton, 2004; Thomas & Hall, 2008), all of which are consistent with Total Wellness. Resilience had the highest correlations with Total Wellness and Coping Self Wellness. The high correlation between Resilience and Coping Self Wellness is consistent with the conceptualization of Resilience as a process involving adaptation over time. The components of Coping Self Wellness - realistic beliefs, stress management, self-worth, and leisure - are essential to adaptation (Myers & Sweeney, 2004).

All of the Wellness factors were inversely related with PTS symptoms as anticipated. The strongest negative relationships were found between Total PTS symptoms, each of the individual PTS scales (Intrusion, Avoidance, and Hyperarousal) and Creative Self Wellness. Total Wellness followed with the next highest correlations with total and subscale PTS symptoms. The strong inverse relationships between PTS

symptoms and Creative Self Wellness support the literature on aspects of control as contributors to wellness in adult survivors of CSA (Friedman, 2007; Phanichrat & Townshend, 2010). These results also indicate the potential need for further investigation of the relationship between aspects of Creative Self Wellness and PTS symptoms.

Significant negative inverse relationships were also found between Resilience and the PTS symptom factors. Although the inverse associations were all similarly strong, the strongest association was between Resilience and the Hyperarousal subscale. According to the DSM-IV-TR (American Psychiatric Association, 2000), hyperarousal symptoms include difficulty falling or staying asleep, irritability or angry outbursts, problems in concentration, hypervigilance, and/or overstated startle response. These findings appear supportive of qualitative findings reported by Bogar and Hulse-Killacky (2006) in a small sample of adult women survivors of CSA and quantitative findings reported by Edmond et al. (2006) in a study of resilience in adolescent females. Specifically, the women from Bogar and Hulse-Killacky's study reported that being able to focus on aspects other than the CSA was essential in their ability to demonstrate resilience. Similarly, Edmond et al. reported that the resilient adolescent girls had future orientations. The presence of hyperarousal symptoms appears to indicate an inability to shift focus away from the CSA experiences. In contrast, PTG did not correlate with PTS symptoms and as a result, the hypothesis that PTG would have a significant positive correlation with PTS symptoms was not supported. This hypothesis was based on results from a meta-analysis of 87 studies that demonstrated a moderate association between PTG and intrusive-avoidant thoughts (Helgeson, et al., 2006) and several studies on PTG in adult women survivors of

CSA where significant positive relationships were found between PTG and PTS symptoms (Lev-Wiesel, et al., 2005; Shakespeare-Finch & Armstrong, 2010; Shakespeare-Finch & de Bassel, 2009).

The final hypothesis anticipated a significant negative relationship between PTG and Resilience. This hypothesis was based on the conceptualization of PTG as the antithesis to Resilience. Conceptual writings about PTG have supported the idea of an inverse relationship (Levine, et al., 2009) and theorists on resilience have argued that individuals demonstrating resilience would need not experience PTG (Westphal & Bonanno, 2007). In contrast to findings in the literature, the current results were significant but in a positive direction, thus suggesting similarities between the two factors as measured by the PTGI and CD-RISC-10. There exists the potential for measurement issues that may be affecting the results. On the other hand, the current results call into question the proposed conceptual difference between these two variables, suggesting a need for additional studies to inform both our knowledge base for understanding CSA survivorship and implications for clinical practice.

Hypotheses two. The second hypothesis stated that there would be significant differences on scores of Wellness, PTG, Resilience, and PTS symptoms based on whether a given perpetrator was a family member. This hypothesis was based on previous research on adult women survivors of CSA which suggests that familial abuse is more severe and thus has a more significant negative effect on individuals' outcomes (Bennett, et al., 2000; Fassler, et al., 2005; Hulme & Agrawal, 2004). The result of the MANOVA on the effect of perpetrator relationship for Abuser 1 was partially significant. Based on

these results, when initial perpetrators are within family systems, whether biologically related or not, women survivors are likely to experience more PTS symptoms. However, as women experience abuse by additional abusers, this relationship no longer appears. Thus, it appears that for women survivors, the first abuse experience affects negative outcomes more significantly when the perpetrator is a relative. This result could mean that the first abuser has the most effect on negative outcomes as a whole while the perpetrator relationship does not affect positive outcomes. Clearly this relationship needs further investigation given the complexity of the variables involved.

Hypotheses three (a-d). The third hypothesis proposed that current age, additional childhood maltreatment, reported current impact of CSA, CSA severity, and age at onset of abuse would predict the variance in Wellness, PTG, Resilience and PTS symptoms. One of the long-standing views in studying adult women survivors of CSA is that varying aspects of their childhood experiences, including CSA severity, additional childhood maltreatment, and age of onset of CSA, contribute significantly to outcomes (Bennett, et al., 2000; Hulme & Agrawal, 2004; Ullman, 2007a) and thus hypothesis three was developed to investigate the validity of these claims. These conceptualizations were only slightly supported in this study. The combined factors significantly contributed to the variance in Total Wellness, Wellness factors, Resilience, and PTS symptoms and subscales. The hypotheses were partially supported for Total Wellness, Wellness Factors, Resilience, and PTS Symptoms and subscales while the variance in PTG was not significantly accounted for by the predicting factors.

Upon review of the variance contributed by each factor, an interesting pattern emerged. While the variables accounted for a very small percentage of the variance in Wellness (12.7%) and Resilience (8.3%), they accounted for a much more substantial amount of variance in total PTS symptoms (36%). The lone factor that contributed significantly to the variance in Wellness, the Wellness Subfactors, and Resilience was the reported current impact of CSA. One exception occurred with Essential Self wellness: additional childhood maltreatment contributed significantly to the variance in Essential Self wellness. Current age, additional childhood maltreatment, and age of onset did not contribute significantly to the variance in Wellness, the Wellness Subfactors, or Resilience. The current age finding is inconsistent with previous reports that as women age their Wellness increases (Degges-White & Myers, 2006). The findings related to Resilience are consistent with findings that suggest Resilience is affected more by intrapersonal processes and characteristics and less by factors like abuse severity or age (Bogar & Hulse-Killacky, 2006; Collishaw, et al., 2007; Edmond, et al., 2006; A. Friedman, 2007; Ligiéro, et al., 2009; Menna, 2008; Singleton, 2004; Thomas & Hall, 2008; Valentine & Feinauer, 1993; Walsh, et al., 2007). Along with the current impact of CSA, CSA severity contributed significantly to the variance in Total PTS symptoms and the Intrusion and Hyperarousal scales and additional childhood maltreatment contributed significantly to the variance in Hyperarousal.

The strongest predictor of each of the factors was the perceived current impact of CSA, indicating that perhaps one's perception of the impact is an essential factor in present day functioning. With this sample, the perceived level of impact of CSA

contributed to lower Total Wellness, wellness subscales, and Resilience while contributing to greater PTS symptoms. A perception of a high level of current impact of CSA could be related to more general perceptions of self. Significant feelings of shame, guilt, and despair are common in adult women survivors of CSA (Briere & Elliott, 1994; Browne & Finkelhor, 1986; Davis & Petretic-Jackson, 2000; Hunter, 2006; Jumper, 1995; Wylie, 2010) and may contribute to how a survivor perceives the impact of CSA. Based on these results, further investigation into how perceptions are related to functioning would be valuable.

Partially consistent with previous research on factors that contribute to negative outcomes, additional childhood maltreatment and CSA severity accounted for a significant amount of variance in Total PTS symptoms, Intrusion and Hyperarousal. These findings are consistent with general findings that have demonstrated that more severe experiences of CSA and additional childhood maltreatment contribute to increased problems in adulthood (Banyard, et al., 2008; Banyard, et al., 2001; Briere & Jordan, 2009; Carlson, et al., 2003; Dennerstein, et al., 2004; Edwards, et al., 2003; Hunter, 2006). In contrast to these findings, the majority of conceptualizations of PTS symptoms in adult survivors of CSA have focused on the Avoidance cluster, with researchers arguing that this cluster of experiences is most consistent with the coping responses seen in survivors (Batten, et al. 2001; Feerick & Snow, 2005; Fortier, et al., 2009; Phanichrat & Townshend, 2010). However, Risser, et al. (2006), reported that the Hyperarousal cluster mediated the relationship between CSA and outcomes most significantly. Clearly, additional factors contribute to the variance in Wellness, PTG, Resilience, and PTS

symptoms but the results of this initial investigation indicate a need for further exploration of what factors contribute to the variance and what factors may mediate these relationships.

Hypothesis four. The fourth hypothesis focused on the relationship between the wellness scores in this sample and the normative wellness data for adult women. Comparisons of the Total Wellness and other second order factors to normative data revealed mostly anticipated differences. The study sample had a lower mean than the normative sample on Total Wellness but the difference was not statistically significant. In contrast, the study sample had a significantly lower mean on the second order factor scales of Creative Self, Social Self, and Essential Self. These results are moderately congruent with research on adult women survivors of CSA. Previous research on women survivors of CSA has demonstrated that often survivors experience a range of physical and mental health challenges (Davis & Petretic-Jackson, 2000; Hunter, 2006). Although these research findings are confirmed by the significantly lower means on the Creative, Social and Essential Self scales, the results from the comparison of the Total Wellness and Physical Self scale are inconsistent with previous research findings. It could be that in this sample, the high Physical Self scale scores may be impacting the overall Total Wellness results in such a way as to negate the difference between the sample and normative data.

Overall, the results from the Physical Self scale seem to be the most inconsistent, which may be related to the sample demographics. This is the first study to utilize the 5F-Wel in a sample of adult women survivors of CSA. The possible explanations for the

high Physical Self scores are numerous but likely are affected by the sample demographics. The sample has a large percentage of educated women who have high household incomes. Consistent with literature on socioeconomic factors and women's health (Ball et al., 2007; Giles-Corti & Donovan, 2003; Lindstrom, Hanson, & Ostergren, 2001; Wilson, Kirtland, Ainsworth, & Addy, 2004), the level of education and access to resources likely contributes to the higher reported nutrition and physical activity of the women in the study sample. As this is the first study to investigate wellness in adult women survivors of CSA, it would be helpful to utilize the 5F-Wel with other samples of women survivors.

Hypothesis five. The purpose of the fifth hypothesis was to clarify the relationship between Total Wellness, Resilience, PTG and PTS symptoms above and beyond CSA and demographic factors. The results indicated that Resilience, PTG, and PTS Symptoms accounted for 31% of the variance in wellness after controlling for income, education, and current impact of CSA. In addition, the demographics variables Current Impact of CSA and Education contributed a significant amount to the variance in Total Wellness. The lack of a relationship between Income and Total Wellness is consistent with research by Degges-White and Myers (2006) who also found no relationship between Income and Total Wellness.

The hypothesis was mostly supported in that Resilience and PTG accounted for significant amounts of the variance in Total Wellness. Menna (2008) describes three categories of resilient factors including environmental, cognitive, and active. These factors align well with Wellness and thus explain how Resilience may account for such a

large amount of the variance in Total Wellness. PTS symptoms had the expected negative effect on Total Wellness but contrary to the hypothesis the results were not significant. This finding contradicts research on the effects of PTS symptoms on individuals, most notably findings of the mediating properties of PTS symptoms between CSA and significant mental health problems in adult survivors (Batten, et al., 2001; Feerick & Snow, 2005; Fortier, et al., 2009; Merrill, et al., 2000; Phanichrat & Townshend, 2010).

The follow-up regression analyses of the second order Wellness factors were almost entirely consistent with the regression analysis of Total Wellness: after controlling for Income, Education, and Current Impact of CSA, Resilience accounted for a significant amount of variance in all of the wellness second order factors while PTG accounted for a significant amount of variance in all but Physical Self wellness. The second order wellness factors are consistent with descriptions of protective factors involved in Resilience. For example, Menna (2008) describes environmental protective factors including social support and healthy relationships, significant aspects of Social Self Wellness. Menna also describes cognitive factors of resilience that align with Creative Self Wellness including internal locus of control, optimism, and a future orientation while cognitive factors such as self-concept and healthy appraisal of self are consistent with Coping Self Wellness. Cognitive factors like spirituality and active factors including self-care (Menna) are key aspects of Essential Self Wellness. Education, Current Impact of CSA, and Income were significant contributors to the variance in Creative Self wellness and Physical Self wellness. Income alone was a significant contributor to Coping Self and Social Self wellness. As previously discussed, these

results were clearly affected by demographics variables which is consistent with the literature on access to resources and physical wellbeing (Ball, et al., 2007; Giles-Corti & Donovan, 2003; Lindstrom, et al., 2001; Wilson, et al., 2004).

In this section, a series of hypothesis-specific discussions were presented. Each hypothesis discussion included a review of the findings and any relevant links to research outcomes. In the next section the focus shifts to a discussion of the macro level implications of the research study with specific attention paid to how the results relate to research on wellness, PTG, and Resilience.

Major Findings

Wellness. Key results related to the wellness construct were identified from the data analysis of this study. The first relevant result is related to the sample in the study: this was the first study to measure wellness in a national sample of adult women survivors of CSA. As a result, this study addresses the need for wellness research on adult nonstudent populations espoused by Myers and Sweeney (2008). The findings related to the sample are important as well. Although only marginal differences existed between the sample and norm means on Total Wellness, the sample had substantially lower means on Creative Self Wellness, Social Self Wellness, and Essential Self Wellness. In contrast to anticipated results, the sample had a significantly higher Physical Self Wellness mean. This pattern of results may be specific to this sample or may be specific to adult women survivors: clearly, it will be important to explore further the higher order and second order wellness in adult women survivors of CSA.

Additional findings related to the sample provide valuable information about wellness in adult women survivors of CSA. Wellness did not differ significantly based on the perpetrator's status (relationship of the perpetrator), the age of onset of abuse, additional childhood maltreatment, or CSA severity. Essential Self wellness was the only second order factor that had a significant inverse relationship with additional childhood maltreatment. Based on these results, it appears that as childhood abuse experiences increase, an individual's capacity to make meaning within the world is compromised substantially. Finally, women's perception of the current impact of the CSA experiences on their lives had a strong inverse relationship with all of the higher and second order wellness factors. The perception of the effect of the CSA appears to align well with actual functioning when measured as wellness: the higher the perceived impact, the lower the experienced wellness. The lack of relationship between wellness factors and many of these variables is an interesting discovery. While these variables at one time or another have been shown to have a negative influence on outcomes in survivors, the opposite does not appear to be true: CSA and life events that lead to problematic outcomes may not compromise wellness.

Further, with this sample, the current age of the women had no significant effect on wellness scores. This finding contradicts a previous study with adult women by Degges-White and Myers (2006); however, the significantly lower mean age in this study (31 years old) as compared to the mean age in that study (47 years old) may impact the results. This discrepancy highlights the need for further investigation of the relationship between age and wellness.

In addition to providing valuable sample-specific information, this study also extended the research on the relationship between wellness and additional constructs. Wellness had a strong positive correlation with PTG, as did all of the second order wellness factors except Physical Self wellness. Of the second order wellness factors, Creative Self and Coping Self wellness had the strongest relationships with PTG. This finding lends support to the idea that a combination of individual attributes, formed over time, contributes to positive image of self and strong coping skills.

Similar findings were seen with Resilience and Wellness. Total Wellness and each of the five second order wellness factors had a high positive correlation with Resilience. Of the second-order factors, Coping Self and Creative Self wellness were most highly related. These relationships were as expected given that Coping Self wellness is comprised of “elements that regulate one’s responses to life events and provide a means to transcend the negative effects of these events” (Myers & Sweeney, 2008, p.485) and unique attributes that help individuals make sense of the world are consistently identified as essential to successful coping.

A strong inverse relationship was found between the higher and second order wellness factors and PTS symptoms and the individual PTS scales. The strongest inverse relationships occurred between Creative Self wellness and total PTS symptoms and each of the PTS scales. How an individual interprets the world around them is affected most negatively by PTS symptoms and in turn, this appears to have a significant negative effect on Total Wellness. Although this sample was not expressly clinical in nature, these findings speak to the relationship between wellness and one of the most common clinical

diagnoses. The individual PTS scale that affected higher order and second order wellness most significantly was Hyperarousal. Again, Creative Self and Social Self wellness had the strongest inverse relationship with Hyperarousal. Of the significant inverse relationships, the relationships between Avoidance and wellness factors were the least strong. While these findings expand the understanding of wellness as it relates to clinical symptoms, clinical issues were not measured in this study making it difficult to know the exact impact of clinical symptoms on the participants. Further research is necessary to clarify this relationship.

Perhaps the most important finding related to wellness was the result of the hierarchical regression of factors predicting higher and second order wellness. The results indicated that above and beyond education and current impact of CSA, a model with PTG, Resilience, and PTS symptoms accounted for 31% of the variance in Total Wellness and between 21% and 34% of the variance in the second order wellness factors. Within each of these models, Resilience accounted for the majority of the variance while PTG accounted for an additional significant amount with all wellness factors except Physical Self wellness. Although PTS symptoms had a significant inverse relationship with higher and second order wellness, they did not account for a significant amount of variance in these models. Based on this it appears that Resilience and PTG have a far greater impact on Wellness than clinical symptoms of PTS. While Resilience and PTG are significant contributors to wellness in survivors, it is clear from this analysis that additional predicting factors exist. Income and education emerged as significant predictors as well. It will be important in further research to investigate the relationship

between these predictor variables in samples that are more diverse and include a wider range of socioeconomic levels.

Resilience. This study was an important step in the investigation of the relationships between Resilience and related constructs in adult women survivors of CSA. A comparison of the study scores on the CD-RISC-10 (Campbell-Sills & Stein, 2007) and the normative data from a sample of 546 adult women (Campbell-Sills, et al., 2009) found that women in this sample had significantly lower scores of Resilience. This result provides preliminary evidence that adult women survivors of CSA may face more challenges in demonstrating resilience. Several factors were considered as potential contributors to the variance in Resilience. Of these, perpetrator's status (relationship of the perpetrator), the age of onset of abuse, additional childhood maltreatment, and CSA severity did not contribute to any significant variance in Resilience. The only contributing factor found in this study was the current impact of CSA as perceived by the participants.

One of the most significant findings related to Resilience was also the most surprising: in this sample, Resilience had a strong positive relationship with PTG. An inverse relationship between Resilience and PTG was expected based on both the conceptualization of the two constructs (Westphal & Bonanno, 2007) and the empirical results supporting that relationship (Levine, et al., 2009). In the study by Levine, et al. resilience was measured as a lack of PTSD. The results from this study related to the relationship between Resilience and PTS symptoms were consistent with Levine et al.'s findings. However, in this study, Resilience was defined as a process occurring over time

and involving the ability to adapt after trauma, and was measured using a validated measure of resilience (CD-RISC-10; Connor & Davidson, 2003). The measurement differences between this study and Levine, et al.'s study likely contributed to this disparate outcome. These differing results provide further support for the need for methodological consistency when studying complex constructs. The use of a validated measure specifically designed to measure the construct is more likely to contribute to the understanding of the construct.

As anticipated, Resilience was highly positively related to wellness and contributed to a significant amount of variance in wellness. This finding highlights the importance of the resilience processes in an individual's life. As a process of adaptation comprised of hardiness and persistence, resilience appears to significantly affect one's well-being. Thus, individuals may be able to affect their overall wellness by focusing on ways to develop and maintain hardiness through times of unexpected stress, hardship, and pressure, and persistence in effort and belief in oneself.

Post-traumatic growth. The findings related to PTG help clarify the relationship PTG has with similar constructs and the experience of PTG for adult women survivors of CSA. No normative data has been published for the PTGI (Tedeschi & Calhoun, 1996) and reported means in studies range from as high as 90.26 (Tedeschi & Calhoun) to as low as 45.81 (Linley, et al., 2007). Given the lack of published normative data and a significant range of means across studies it is inappropriate to make any assumptions about this sample based on the mean score.

In contrast to previous studies of PTG both in general populations and with adult women survivors of CSA, in this sample PTG was not significantly related to PTS symptoms. This finding is perplexing given the relatively strong research support of this relationship. Reasons for a lack of a relationship in this study could include sample composition: the current study sample was largely white with high household incomes and high levels of education. Other results were somewhat mixed: in the analysis of the first abuser reported by the study participants, the perpetrator's relationship was not a significant predictor of variance in PTG. However, the perpetrator's relationship was a significant predictor of variance in PTG in an analysis of the second abuser. This finding provides potentially interesting insight into PTG. It may be that individuals are more likely to demonstrate PTG when they have experienced abuse by multiple perpetrators, especially when the second perpetrator is a family member. This finding in conjunction with the finding that CSA severity contributes significantly to the variance in PTG leads to further clarification. It seems that as women experience additional abuse by a relative and the severity of the CSA experiences increases, their experience of PTG increases. This link between CSA severity and PTG is an important finding in this study.

In this sample, PTG had a moderate positive relationship with wellness and each of the second order wellness subscales except Physical Self. This finding is congruent with the conceptualization of PTG as a set of cognitive processes. PTG had the strongest relationship with Creative Self wellness. This was not surprising given that both Creative Self wellness and PTG include a focus on relationships, self-perception, self-awareness, and thoughts on life and the world. A key aspect of Creative Self wellness is the ability to

positively interpret the world, and research has supported a similar construct, positive reappraisal coping, as a primary contributor to PTG (Prati & Pietrantonio, 2009). Finally, PTG also contributed significantly to the variance in Total Wellness. The finding that PTG, along with Resilience, explained a significant amount of variance in Wellness above and beyond socio-demographic variables is a critical finding in this study and suggests that further investigation of these constructs is warranted.

As mentioned previously, PTG had a significant positive relationship with Resilience. This unanticipated result highlights a need for further research into the individual constructs with adult women survivors of CSA and with other samples. Finally, the unanticipated relationship between PTG and Resilience speaks to the well-documented concerns voiced about both constructs. Clearly the two overlap to a degree and these initial results indicate a need for further investigation of this relationship.

Limitations

While the results of this study provide beneficial insight into the relationship between wellness, PTG, and Resilience in adult women survivors of CSA, the results should be considered in light of the limitations of the study. Three categories of limitations need consideration: study design, sampling, and measurement limitations. This study used a survey design and a convenience sampling method, both of which have related limitations. The final response rate for the study was 70.87% and while this response rate is sufficient, the individuals who did not complete the survey may differ from those who completed the survey in unknown ways. Recruitment of the sample through an online database of research volunteers allowed for a national sample,

however, the reliance of the database on research volunteer access to the internet and email was a potential limitation. Women who do not have internet or email access likely differ from the women in this sample. Additionally, individuals who sign up as volunteers in an online research database and then sign up to participate in a study may have more interest in the topics of the study and in research in general. Although these sampling concerns may limit the results somewhat, the variances associated with the study variables suggest that this may not have been a significant limitation.

An additional study related limitation is that the study design was cross-sectional. This design approach may increase error variance because the participants are being asked to recall information about CSA experiences that occurred in the past. Methodological difficulties are evident when assessing current states of wellness, resilience, and PTG as they relate to experiences that occurred during childhood. As a result, the study conclusions regarding these relationships must be viewed tentatively.

In addition to sampling considerations, there are several important potential limitations related to the study instruments. All of the measures were self-report in nature and thus open to a number of concerns. Participant answers may have been affected by social desirability, or the private nature of the questions may have resulted in participant discomfort when answering certain questions. The latter of these may have introduced additional error via the missing data on the CAMI. Of the 163 participants, 151 answered the initial CAMI questions. The failure to answer these questions could be due to the personal nature of the questions or could be related to test fatigue as these questions came near the end of the survey. Additional measurement concerns arise from the use of the

5F-Wel in this study. Although the 5F-Wel has been validated in numerous adult populations, this measure has not been validated with adult women survivors of CSA. While the results of this study are somewhat supportive of the validity of using this measure with adult women survivors of CSA, several low reliability results related to the second-order wellness factors indicate potential issues. It is difficult to say whether the low reliabilities are related to the current sample or adult women survivors of CSA in general and as such, the results from this study should be viewed tentatively. The remaining measures demonstrated sufficient reliability with this sample. A final measure-related limitation is related to the demographics questions. One question designed by the researcher was used to assess the current impact of CSA as perceived by the women. Based on these results it is clear that this perceived impact may be an important factor in outcomes. However, the use of a single non-standardized item is a major limitation in this study.

Implications

The current study provided empirical results on the relationships between wellness, resilience, and PTG in adult women survivors of CSA. This is the first study to investigate the relationship between wellness, resilience, and PTG in adult women survivors of CSA. The relevance to adult women survivors of CSA, the counseling profession, and future research warrant consideration. In this section, the study results are considered as they relate to the conceptualization of adjustment for adult women survivors of CSA, counseling practice, counseling education, and future research in these areas.

Alternate forms of adjustment. For decades, the overwhelming majority of research on adult women survivors of CSA has focused on problematic outcomes. While it is extremely valuable to understand the negative effects of CSA on women's lives, this continued focus on negative outcomes has not assisted the development of tools or theories that significantly help women who experience negative outcomes. The discovery of healing processes and trajectories could facilitate the development of healing-promoting interventions (Layne, et al., 2009). This study answered a call to investigate the characteristics and qualities related to healing and wellness in adult women survivors of CSA.

The results of this study lend support to the idea that resilience is an experience of some survivors of CSA. For this sample, Resilience was highly positively related to wellness and moderately positively related to PTG. A key finding regarding resilience was that women can experience high resilience regardless of the amount and severity of abuse they experienced as children. An additional related finding was that Resilience had a significant inverse relationship with PTS symptoms. These two findings suggest initial support of conceptualizations by Bonanno (2005) that resilience is a distinct outcome possible for trauma survivors. The study findings were less clear related to PTG as a distinct outcome. The findings that PTG had a significant positive relationship with resilience and almost no relationship with PTS symptoms are inconsistent with the literature on PTG. These results imply that PTG may not accurately describe an outcome for survivors of CSA.

Another key focus of this study was the investigation of how Resilience and PTG relate to survivor wellbeing. Based on these results, it is clear that the processes that comprise Resilience and PTG overlap to some degree and that these processes are ultimately related to wellness. Childhood trauma factors contributed significantly to PTS symptoms but not significantly to resilience, PTG, and ultimately wellness. These results indicate that a great number of other factors are likely contributing to resilience, PTG, and wellness in adult women survivors of CSA. In sum, this study revealed that resilience described the experiences of these women most accurately and contributed most significantly to the women's wellness.

Counseling Practice. The results of this study provided beneficial information to counselors working with adult women survivors of CSA. As mentioned previously, the decades of research on adult women survivors of CSA has resulted in an extensive list of negative outcomes possible for these women. The awareness of the multitude of challenges can be overwhelming to counselors. While survivors may experience any of a number of negative outcomes, these results indicate that adult women survivors are likely to experience wellness, resilience, and PTG as well. As a counselor, it is important to know that while CSA often results in negative outcomes, each individual survivor will exhibit differential outcomes that can include resilience and wellness.

The results from this study specifically inform therapeutic work around wellness. Based on this study, a counselor might work with an adult woman survivor of CSA who experiences wellness deficits in Creative Self, Social Self, and Essential Self wellness. As the Indivisible Self Model of Wellness (Myers & Sweeney, 2006) suggests, focusing on

improvement in the areas of cognitive and emotional responses, locus of control, self-care, hardiness, self-efficacy, optimism, and relationships will likely contribute to greater overall wellness. Further, the results of this study seem to support the idea that high levels of Physical Self wellness are indicative of higher total wellness. Thus, if counselors are working with survivors who have low Physical Self wellness, it would be expected that improving this would have a large influence on total wellness.

The results suggest that while PTS symptoms and wellness have an inverse relationship, PTS symptoms do not significantly contribute to the variance in wellness. Counselors need to be aware that while survivors may experience clinical symptoms related to PTS, other factors can mitigate these to ultimately impact wellness. Notably, resilience is a large contributor to wellness. Counselors can attend to the development of hardiness and persistence as ways that may positively affect wellness. Importantly, these findings indicate that adult women survivors of CSA experience wellness deficits not simply as a result of the severity of the CSA experiences or additional childhood maltreatment. Other aspects of the survivor's life or the CSA experience may prove more important to focus upon in the therapeutic relationship.

Counselor Education. Counselor educators can use the information obtained from this study in a number of ways. A key implication of this study is that resilience and PTG contribute to wellness in adult women survivors of CSA above and beyond demographics and PTS symptoms. The finding that regardless of income, education or level of PTS symptoms, the experience of resilience contributes significantly to wellness is a finding that supports the general counseling field's focus on holistic wellbeing. In the

context of counselor education, this finding supports continued education around wellness and wellness-related interventions for all clients, including those who are survivors of CSA. Further, the findings support the need for educators to instill in their students an open mind to the many experiences of CSA survivors. CSA survivors may experience clinical diagnoses such as PTSD but may also experience areas of wellness. Teaching students to recognize both the areas needing improvement and the areas in which clients demonstrate strengths or resilience is vital to counselor education. Although this study is but a small glimpse into the relationships between wellness, resilience, and PTG in adult women survivors of CSA, the results speak to larger issues of trauma survivors. The medical model and use of diagnoses yield positive outcomes for many; however, this study speaks to the importance and validity of wellness. Counselor educators are in a unique position in the mental health field: we have the opportunity to provide a voice of balance and reason – one that considers the importance of the medical model and diagnoses alongside that of the lived experience and wellness of the clients our students and ourselves serve. This study provides additional support for counselor educators to continue to focus on both.

Future Research. This study was an initial look at possible alternate outcomes for adult women survivors of CSA. As such, additional research is needed to further understand the relationships between wellness, resilience, and PTG in adult women survivors of CSA. One of the interesting results from this study was the finding that the current impact of CSA as perceived by the participants greatly contributed to wellness, resilience and PTS symptoms. As this question was one of the potential limitations,

replicating this study with a measure that more accurately assesses this perception would clarify these findings. Future researchers could also employ a qualitative or mixed-methods study to investigate how perceptions of impact relate to and/or effect actual impact of events and thus impact wellness, resilience, and PTG.

Additional methodological changes may prove helpful. Inconsistent with conceptualizations in the PTG literature (Levine, et al., 2009) and the resilience literature (Westphal & Bonanno, 2007), the results of this study indicate that resilience and PTG are positively related. A longitudinal, rather than cross-sectional design would allow researchers to investigate the processes that affect wellness, resilience, and PTG over time and provide a more complete picture of the experience of healing. The convenience sampling methodology used in this study resulted in a sample comprised mostly of Caucasian women with higher than average education and income. It is imperative that future research include samples that are more demographically diverse. Finally, the inclusion of additional factors in a structural equation model (SEM) would be a more powerful statistical design.

This initial investigation into wellness, resilience, and PTG clearly supports the need for the identification of additional factors that contribute to these experiences. Additional measures could facilitate the identification of additional contributing factors. These could include measures of psychological symptoms including depression and anxiety; measures of coping styles and behaviors; and measures of environmental factors including sources of support.

Conclusion

The purpose of this study was to address an important gap in child sexual abuse literature related to strengths and healing processes by investigating the relationship between wellness, resilience, and PTG in adult women survivors of CSA. Pearson Product-Moment correlations were used to assess the relationship between Total Wellness and the second order wellness factors, PTG, Resilience, and PTS symptoms. A MANOVA and a series of multiple regressions were used to investigate the impact of demographics information and CSA characteristics on Wellness, PTG, Resilience, and PTS symptoms. Finally, a hierarchical multiple regression was conducted to determine how much, if at all, PTG and Resilience contributed to Wellness while controlling for various demographic factors. Analyses of the results revealed relationships between the three major constructs and PTS symptoms. Above and beyond demographic variables, resilience and PTG were significant predictors of the variance in wellness. Additional research is necessary in order to replicate and further explain the results from this study. It is evident that adult women survivors of CSA may experience healing processes that facilitate wellness and the awareness of these processes ultimately benefit the many survivors counselors encounter on a daily basis.

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APPENDIX A
STUDY INSTRUMENTATION

Demographic Questionnaire

Correspondence regarding the Computer Assisted Maltreatment Inventory

Computer Assisted Maltreatment Inventory

Correspondence regarding the Impact of Event Scale-Revised

Impact of Event Scale-Revised

Traumatic Event Scale (Pilot Study only)

Permission to use the Five Factor Wellness-Inventory for Adults

Permission to use the Abridged Connor-Davidson Resilience Scale

Correspondence regarding the Abridged Connor-Davidson Resilience Scale

The Abridged Connor-Davidson Resilience Scale

The Post-Traumatic Growth Inventory

Additional questions related to healing processes (Main Study only)

Demographics Questionnaire

What is your age?

Please specify your ethnicity.

What is the highest level of school you have completed or the highest degree you received?

- Less than high school degree
- High school degree or equivalent (e.g. GED)
- Some college but no degree
- Associate degree
- Bachelor degree
- Graduate degree

Which of the following categories best describes your employment status?

- Employed, working 1-39 hours per week
- Employed working 40 or more hours per week
- Not employed, looking for work
- Not employed, NOT looking for work
- Retired
- Disabled, not able to work
- Student

What is your family's total combined annual income?

- Less than \$20,000
- \$20,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

What is your relationship status?

- Single
- Married
- Divorced
- Widowed

Separated

In a committed relationship

Other (please specify)

What is your sexual orientation?

Heterosexual

Lesbian

Bisexual

Asexual

Don't know

Other

Additional Demographics Questions that appeared only in the full study

Often women who have experienced sexual abuse during childhood and/or adolescence engage in activities to help them address these experiences. Some of these activities are listed below. Please rate how much each activity helped you address your sexual abuse experiences. If you have not participated in the activity, select N/A. If you have been involved in additional activities not listed please write these in at the bottom and report the helpfulness level of the activity.

Rated on a scale of not at all, a little bit, moderately, quite a bit, extremely, and N/A.

Individual counseling/therapy

Group counseling/therapy

Yoga

Meditation

Personal coaching

Self-help books

Spiritual and/or religious practice

Support groups

Volunteering

Journaling/writing

Hypnosis

Other (please specify)

Please rate the degree to which you feel the experience of childhood and/or adolescence sexual abuse negatively affects you today.

Not at all, a little bit, moderately, quite a bit, extremely

Correspondence regarding the Computer Assisted Maltreatment Inventory

Elizabeth Hodges Shilling
<eahodges@gmail.com>
To: ddilillo@unl.edu

Sat, Jan 14, 2012 at 11:40 AM

Dr. DiLillo,

I am working on my dissertation on alternate trajectories of survival in adult women survivors of CSA and I am interested in using the CAMI in my dissertation study. How can I obtain this measure?

Thank you,
Elizabeth Shilling

David DiLillo <ddilillo@unl.edu>
To: Elizabeth Hodges Shilling <eahodges@gmail.com>

Sat, Jan 14, 2012 at 5:04 PM

Hi Elizabeth,

I am attaching the paper version of the CAMI. Feel free to use it in this form. There are options for using the web version as well. Please let me know if you want to pursue that.

Thanks,
David

The Computer Assisted Maltreatment Inventory: CSA Questions

It is now commonly known that many people have sexual experiences during childhood or adolescence. These experiences may occur with other children, adolescents, or adults and can include a wide range of behaviors including witnessing sexual activity, touching or being touched in a sexual way, and sexual intercourse.

In this section we would like to ask you about some of the sexual experiences you may have had before you turned 18. First, read through the list of sexual experiences below. Then, answer the following three questions.

- **Someone intentionally exposed his or her genitals to you or masturbated in front of you.**
- **Someone kissed, touched, or fondled your body in a sexual way or you touched or fondled them.**
- **Someone attempted to have sexual intercourse with you (oral, anal, or vaginal).**
- **You and another person actually had sexual intercourse (oral, anal, or vaginal).**

1. Before you were 18, did ANY of the above ever happen with anyone against your will or when you did not want it to happen?

- (1) Yes
- (2) No

2. Before you were 18, did ANY of the above ever happen with an immediate family member or other relative? (Please EXCLUDE any voluntary sexual play that may have occurred with a similar age peer—for example “playing doctor.”)

- (1) Yes
- (2) No

3. Before you were 18, did ANY of the above ever happen with anyone who was more than 5 years older than you? (Please EXCLUDE any VOLUNTARY activities that occurred with a dating partner.)

- (1) Yes
- (2) No

Correspondence Regarding the Impact of Event Scale-Revised

Elizabeth Hodges Shilling < >

Wed, Jan 11, 2012 at 10:56 AM

To: daniel.weiss@ucsf.edu

I am interested in obtaining the IES-R to use in my dissertation on adult women survivors of child sexual abuse. Can you tell me what I can do to obtain this scale?

Thank you,
Elizabeth Shilling

Weiss, Daniel < >

Thu, Jan 12, 2012 at 7:06 PM

To: Elizabeth Hodges Shilling < >

see the attached files

Daniel S. Weiss, Ph.D.
Editor in Chief, Journal of Traumatic Stress
Professor of Medical Psychology
Department of Psychiatry
University of California San Francisco
San Francisco, CA 94143-0984
P: 415 476 7557
F: 415 476 7552
Mail Code: UCSF Box 0984-F

Correspondence Regarding the CD-RISC and CD-RISC-10

From: Jonathan Davidson, M.D.
Sent: Thursday, December 01, 2011 6:31 PM
To: Shilling, Elizabeth Hodges
Subject: RE: CD-RISC

Dear Elizabeth:

Thank you for your enquiry about the CD-RISC, which we would be pleased to supply for your dissertation. I am enclosing an agreement and project outline form. If you could kindly complete and return them to me, and make arrangements for payment of the \$50 user fee, we'll then be able to send the scale and manual. You might also want to check out the website www.cd-risc.com, which give more information about the scale.

If there's anything else we can do to help, please let me know.

With kind regards,
Jonathan Davidson

From: Shilling, Elizabeth Hodges
Sent: Thursday, December 01, 2011 9:44 AM
To: Jonathan Davidson, M.D.
Subject: CD-RISC

Good morning Dr. Davidson,

I am trying to obtain information about the CD-RISC so that I may use it in my dissertation research. Can you provide any information about how I might find a copy to use?

Thank you so much,
Elizabeth Hodges Shilling, M.A.

Permission to use the CD-RISC and CD-RISC-10

Dear Elizabeth:

Thank you for your interest in the Connor-Davidson Resilience Scale (CD-RISC). We are pleased to grant permission for use of the CD-RISC in the project you have described under the following terms of agreement:

1. You agree not to use the CD-RISC for any commercial purpose, or in research or other work performed for a third party, or provide the scale to a third party. If other off-site collaborators are involved with your project, their use of the scale is restricted to the project, and the signatory of this agreement is responsible for ensuring that all collaborators adhere to the terms of this agreement.
2. You may use the CD-RISC in written form, by telephone, or in secure electronic format where the scale is protected from unauthorized distribution or the possibility of modification.
3. Further information on the CD-RISC can be found at the www.cd-risc.com website. The scale's content may not be modified, although in some circumstances the formatting may be adapted with permission of either Dr. Connor or Dr. Davidson. If you wish to create a non-English language translation or culturally modified version of the CD-RISC, please let us know and we will provide details of the standard procedures.
4. Three forms of the scale exist: the original 25 item version and two shorter versions of 10 and 2 items respectively. When using the CD-RISC 25, CD-RISC 10 or CD-RISC 2, whether in English or other language, please include the full copyright statement and use restrictions as it appears on the scale.
5. A fee of \$ 50 US is payable to Jonathan Davidson at 3068 Baywood Drive, Seabrook Island, SC 29455, USA, either by cheque, bank draft, international money order or Western Union. **(Please note: An additional \$16 fee is charged for bank wire transfers).**
6. Complete and return this form via email to mail@cd-risc.com, along with the attached project description form.
7. In any publication or report resulting from use of the CD-RISC, you do not publish or partially reproduce the CD-RISC without first securing permission from the authors.

If you agree to the terms of this agreement, please email a signed copy to the above email address, along with the completed project description form. Upon receipt of the signed agreement and of payment, we will email a copy of the scale.

For questions regarding use of the CD-RISC, please contact Jonathan Davidson at mail@cd-risc.com. We wish you well in pursuing your goals.

Sincerely yours,

Jonathan R. T. Davidson, M.D.
Kathryn M. Connor, M.D.

Agreed to by:

Elizabeth Hodges Shilling
Signature (printed)

January 11, 2012
Date

APPENDIX B

PILOT STUDY RECRUITMENT MATERIALS

Invitation to Participate: Email and Craigslist Invitation

You are invited to participate in a study conducted by Jane E. Myers and Elizabeth H. Shilling from the University of North Carolina at Greensboro. This study is being conducted to learn more about the survival experiences of adult women survivors of child sexual abuse. With your help, this study will begin to look at how women experience resilience, growth, and wellness after a traumatic experience. The findings may help inform therapeutic interventions for women survivors of child sexual abuse as well as education for counselors and other therapists assisting survivors.

This research has been approved by the University of North Carolina at Greensboro Institutional Review Board (#12-0034).

In order to participate, you need to be at least 18 years old and a woman who experienced sexual abuse any time during childhood or adolescence. Participation includes filling out an approximately 30 to 45 minute long survey. Participation is anonymous and no identifying information will be collected. Some of these questions will be very personal in nature and will ask for specific information about the sexual abuse you experienced during childhood and/or adolescence.

At any point you may choose to stop participating and you may skip any question that you are uncomfortable answering.

No compensation will be given for participation in this study, but once completed, you will be invited to participate in a drawing for a \$30 gift certificate to either Target or Walmart.

If you are interested in participating please click here: *[Link]*

If you have any questions, please contact Elizabeth H. Shilling (email address) or Jane Myers (email address).

Thank you for your time and help,
Elizabeth H. Shilling

APPENDIX C

PILOT STUDY INFORMED CONSENT

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO CONSENT TO ACT AS A HUMAN PARTICIPANT: Long Form

Project Title: Trajectories of adjustment in adult women survivors of CSA: The relationship between wellness, resilience, and post-traumatic growth

Project Director: Dr. Jane E. Myers, Ph.D., LPC, NCC

Participant's Name: _____

Study Description and Explanation of Procedures

The purpose of this study is to investigate the experiences of wellness, resilience, and post-traumatic growth in women survivors of child sexual abuse. Participants, therefore, are women at least 18 years old who experienced sexual abuse as a child or adolescent. Participants will be asked to complete a set of assessments including the 73-item Five Factor Wellness Inventory, the 10-item Abridged Connor-Davidson Resilience Scale, and the 21-item Post-Traumatic Growth Inventory. Completion of these assessments should take approximately 30 to 45 minutes. Some of these questions will be very personal in nature and will ask for specific information about the sexual abuse you experienced during childhood and/or adolescence.

All of the assessments will be completed over the internet, using the encrypted survey site SurveyMonkey. SurveyMonkey does not record any specific user information and uses advanced technologies to ensure privacy. Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

Once the survey is completed, you will be directed to a separate site where you may choose, if you wish, to enter into a drawing for a gift card by providing your contact

information. This contact information is not stored or saved in connection with your assessment responses and thus, in no way can your results be identified.

This is a research study and the results of this research study will be used for research purposes only. Your participation is completely voluntary and confidential. You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. All information obtained in this study is strictly confidential unless disclosure is required by law. All of the information collected during this research study will be kept on a password protected, encrypted webpage, and on a password protected computer. Any printed versions of the total results will be kept in a locked filing cabinet. Results will be kept for at least seven years and when the time comes, the computer files and any paper copies will be appropriately destroyed.

Risks and Discomforts

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. Participation in this study is not expected to involve risk of any harm greater than what you might encounter in your daily life. If, while participating in this study, concerns arise for you, you may share these with the researcher by calling or emailing the researcher using the contact information listed in the next paragraph. You may contact the researcher in order to receive a counseling referral and there will be a list of referral resources provided at the end of the survey.

If you have any concerns about your rights, how you are being treated or if you have questions, want more information or have suggestions, please contact Eric Allen in the Office of Research Compliance at UNCG toll-free at (855)-251-2351. Questions, concerns or complaints about this project or benefits or risks associated with being in this study can be answered by Elizabeth H. Shilling who may be contacted at (phone number) or (email address) and Jane E. Myers who may be contacted at (phone number) or (email address).

Potential Benefits

Currently, little is known about those experiences or processes in a woman's life that may contribute to successful or positive outcomes after child sexual abuse. Understanding how these mechanisms work and contribute to wellness may facilitate the development of holistic interventions for women who may be experiencing challenges related to their experiences of child sexual abuse. This knowledge may also help in the education of counselors and other helping professionals, such that they are better suited to assist adult women survivors of child sexual abuse. Completing this study may also help you gain insight into your experiences of wellness, resilience, and growth.

Cost and Compensation

There is no cost for you to participate in this study and there is no direct compensation for your participation in this study. However, you may enter your name in a drawing to receive a \$30 gift card to Target or Walmart.

Voluntary Consent by Participant

By selecting the "yes" button below, you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By selecting the "yes" button, you are agreeing that you are 18 years of age or older and are agreeing to participate in this study.

Please print this page for your records or you may request a hard copy of this consent by emailing (email address).

***By selecting YES below, you are agreeing to participate in this project as described above.**

YES

NO

APPENDIX D

PILOT STUDY FEEDBACK QUESTIONS

Please take a few moments to provide feedback on the questionnaire you just completed.

This feedback will be used to modify the questionnaire for a larger study. Thank you.

Were any parts of the directions unclear?

Were any of the questions confusing to you?

Did you feel like the survey left out any questions?

How long did it take you to complete the questions?

Is there any other feedback you have about the survey?

APPENDIX E

MAIN STUDY INFORMED CONSENT

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO CONSENT TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: Alternate forms of adjustment in adult women survivors of CSA: The relationship between wellness, resilience, and post-traumatic growth

Project Director: Dr. Jane E. Myers, Ph.D., LPC, NCC

Study Description and Explanation of Procedures

The purpose of this study is to investigate the experiences of wellness, resilience, and post-traumatic growth in women survivors of child sexual abuse. Participants, therefore, are women at least 18 years old who experienced sexual abuse as a child or adolescent. Participants will be asked to complete a set of assessments including the 73-item Five Factor Wellness Inventory, the 10-item Abridged Connor-Davidson Resilience Scale, and the 21-item Post-Traumatic Growth Inventory. Completion of these assessments should take approximately 25 to 35 minutes. Some of these questions will be very personal in nature and will ask for specific information about the sexual abuse you experienced during childhood and/or adolescence. As a result, these questions may bring up memories about abusive experiences you may have had during childhood and/or adolescence.

All of the assessments will be completed over the internet, using the encrypted survey site SurveyMonkey. SurveyMonkey does not record any specific user information and uses advanced technologies to ensure privacy. Absolute confidentiality of data provided through the Internet cannot be guaranteed due to the limited protections of Internet access. Please be sure to close your browser when finished so no one will be able to see what you have been doing.

Once the survey is completed, you will be directed to a separate site where you may choose, if you wish, to enter into a drawing for a gift card by providing your contact information. This contact information is not stored or saved in connection with your assessment responses and thus, in no way can your results be identified.

This is a research study and the results of this research study will be used for research purposes only. Your participation is completely voluntary and confidential. You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. All information obtained in this study is strictly confidential unless disclosure is required by law. All of the information collected during this research study will be kept on a password protected, encrypted webpage, and on a password protected computer. Any printed versions of the total results will be kept in a locked filing cabinet. Results will be kept for at least seven years and when the time comes, the computer files and any paper copies will be appropriately destroyed.

Risks and Discomforts

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. Participation in this study is not expected to involve risk of any harm greater than what you might encounter in your daily life. If, while participating in this study, concerns arise for you, you may share these with the researcher by calling or emailing the researcher using the contact information listed in the next paragraph. You may also contact the researcher in order to receive a counseling referral and there will be a list of referral resources provided at the end of the survey.

If you have any concerns about your rights, how you are being treated or if you have questions, want more information or have suggestions, please contact Eric Allen in the Office of Research Compliance at UNCG toll-free at (855)-251-2351. Questions, concerns or complaints about this project or benefits or risks associated with being in this study can be answered by Elizabeth H. Shilling who may be contacted at (phone number) or (email address) and Jane E. Myers who may be contacted at (phone number) or (email address).

Potential Benefits

Currently, little is known about those experiences or processes in a woman's life that may contribute to successful or positive outcomes after child sexual abuse. Understanding how these mechanisms work and contribute to wellness may facilitate the development of holistic interventions for women who may be experiencing challenges related to their experiences of child sexual abuse. This knowledge may also help in the education of counselors and other helping professionals, such that they are better suited to assist adult

women survivors of child sexual abuse. Completing this study may also help you gain insight into your experiences of wellness, resilience, and growth.

Cost and Compensation

There is no cost for you to participate in this study and there is no direct compensation for your participation in this study. However, you may enter your name in a drawing to receive a \$30 gift card to Target or Walmart.

Voluntary Consent by Participant

By selecting the “yes” button below, you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By selecting the “yes” button, you are agreeing that you are 18 years of age or older and are agreeing to participate in this study.

Please print this page for your records or you may request a hard copy of this consent by emailing (email address).

***By selecting YES below, you are agreeing to participate in this project as described above.**

YES

NO

APPENDIX F

MAIN STUDY RECRUITMENT SCRIPT

A research team with University of North Carolina at Chapel Hill in Chapel Hill, NC, believes you might be a good match for the following study:

[A study is being conducted to learn more about the survival experiences of adult women survivors of child sexual abuse. With your help, this study will begin to look at how women experience resilience, growth, and wellness after a traumatic experience.

The study is being conducted by Jane E. Myers and Elizabeth H. Shilling from the University of North Carolina at Greensboro and has been approved by the University of North Carolina at Greensboro Institutional Review Board (02/03/2012).

Participation includes filling out an approximately 25 to 35 minute long online survey. Participation is anonymous and no identifying information will be collected. Some of these questions will be very personal in nature and will ask for specific information about the sexual abuse you experienced during childhood and/or adolescence.

No compensation will be given for participation in this study, but once completed, you will be invited to participate in a drawing where 5 individuals will be selected to receive a \$30 gift certificate to either Target or Walmart (based on your choice).]*

If you are interested in this study and having the research team contact you directly, please select the "Yes, I'm interested" link below. By clicking the "Yes, I'm interested" link, your contact information will be released to the research team. If you select the "No, thanks." link or do not respond to this study message, your contact information will not be released to the research team.

Yes, I'm interested! No, thanks.

You are receiving this email message since you have registered in the ResearchMatch registry. Should you wish to edit your profile or remove your contact information from this registry, please login here.

ResearchMatch Disclaimer

ResearchMatch is a free and secure tool that helps match willing volunteers with eligible researchers and their studies at institutions across the country. ResearchMatch is only providing a tool that allows you to be contacted by researchers about their studies. ResearchMatch therefore does not endorse any research, research institution, or study. Any recruitment message that you may receive about a study does not mean that ResearchMatch has reviewed the study or recommends that you consider participating in this study.

*This is the portion of the ResearchMatch standard recruitment email that can be personalized by the investigator. The remaining section of this script is standard for all studies.

APPENDIX G

MAIN STUDY PARTICIPATION SCRIPT

You are being contacted because you indicated interest in participating in a study through ResearchMatch.org. The title of the study is Alternate forms of adjustment in adult women survivors of CSA: The relationship between wellness, resilience, and post-traumatic growth. In order to be eligible to participate you must have experienced some form of sexual abuse or rape during childhood or adolescence.

Thank you for your interest in participating.

Here is a link to the survey:

<https://www.surveymonkey.com/s.aspx>

This link is uniquely tied to this survey and your email address. Please do not forward this message.

Thank you for your participation!

Please note: If you do not wish to receive further emails from us, please click the link below, and you will be automatically removed from our mailing list.

<https://www.surveymonkey.com/optout.aspx>