PREDICTORS OF THE RELATIONSHIP BETWEEN CHILDHOOD MALTREATMENT
AND CAREER DECISION SELF-EFFICACY AMONG
UNDERGRADUATE STUDENTS

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Vocational disruption for survivors of interpersonal trauma has been noted by both practitioners and researchers. While limited empirical support exists, a firm theoretical framework and a full range of outcomes have not been explored. Guided by the framework of social cognitive career theory (SCCT), a promising framework recommended in the previous literature, the aim of the current study was to explore the function of contextual barriers and supports as predictors of career decision self-efficacy (CDSE). Due to the lack of consistency in previous research and absent theoretical specification of the particular mode of intervening variables, both mediation and moderation were explored using multiple regression. The results indicate the relationship between background factors (i.e., childhood maltreatment) and CDSE was fully mediated by an indirect pathway via personal factors (i.e., trauma-related symptoms) and learning experiences (i.e., anxious and avoidant attachment with a career-related mentor) in the prediction of CDSE. The results also indicate that personal factors (i.e., trauma-related symptoms) function as a moderator between background factors (i.e., childhood maltreatment) and learning experiences as anxious attachment with a career-related mentor. Finally, learning experiences as anxious attachment with a career-related mentor moderated the relationship between personal factors (i.e., trauma-related symptoms) and CDSE. Overall, within the SCCT model, the proposed predictors help explain differences in CDSE as related to childhood maltreatment through mediation and moderation. Theoretical and practical implications of the results are discussed.
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CHAPTER 1
INTRODUCTION

Childhood maltreatment, including physical, sexual and emotional abuse imposed by another person, typically within the family (e.g., parent, partner, sibling), is associated with a host of long-term detrimental outcomes, including psychiatric conditions such as post-traumatic stress disorder (PTSD), depression, borderline personality disorder, and anxiety disorders (Briere & Elliot, 2003; Briere & Scott, 2006; Jobson & O’Kearney, 2008). Childhood maltreatment is a particularly egregious form of trauma and is thought to affect underlying mechanisms of the self and decision-making, including disruptions in cognition, emotion, self-esteem, world-view, attachment, and identity (Berger, 1998; Black & Pearlman, 1997; Briere & Scott, 2006; Frewen et al., 2011; Freyd & DePrince, 2001; van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005). A less researched potential negative outcome of enduring interpersonal trauma is difficulty with the career decision process (Albaugh & Nauta, 2005; Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Chronister & McWhirter, 2004; Coursol, Lewis, & Garrity, 2001; Hellmich, 1995; Lee & Tolman, 2006; Quinn, 1998; Ryan, Solberg, & Brown, 1996; Strauser, Lustig, Cogdal, & Uruk, 2006; Zvirblis, 2000). However, the relationship between childhood maltreatment and career decision has remained largely obscured in the literature, suggesting the likely role of intervening variables (i.e., mediators and/or moderators).

Career exploration is an important developmental milestone for emerging adults (Arnett, 2000) that involves careful consideration of personal attributes and interests in light of opportunities available in the world of work (Osipow, 1975; Osipow & Fitzgerald, 1996). Identification of the predictors and modifiers of the relationship between childhood maltreatment and problematic career decision processes should be of particular interest to college counselors,
as their clients are in a life-stage where career decisions are especially salient. Moreover, as
many as 30% of college students are grappling with the effects of childhood maltreatment and
potential re-victimization from current dating partners (Aosved & Long, 2005; Elliot, Alexander,
Pierce, Aspelmeier, & Richmond, 2009; Elliot, Mok, & Briere, 2004; Finkelhor, Hotaling,
Lewis, & Smith, 1990; Pipes & LeBov-Keeler, 1997). Thus, the high prevalence of survivors of
childhood maltreatment on college campuses necessitates that career counselors become aware
of the impact of interpersonal trauma on career decision in order to more effectively assist
college students who are trauma survivors. Pursuing a more precise understanding of potential
indirect pathways (i.e., mediation) or magnification/minimization (i.e., moderation) of the
influence of childhood maltreatment on career decision could help create tailored interventions
for enhanced effectiveness.

Career decisions are fundamentally based on the utilization and integration of various
forms of self-knowledge and efficient decision-making skills (Betz & Schifano, 2000; Bandura
et al., 2001; Dik, Sargent, & Steger, 2008; Gati & Nimrod, 2014; Puffer, 2011), processes
identified by previous researchers as being negatively affected by trauma (Bernsten & Rubin,
2007; Bluhm et al., 2009; Frewen et al., 2010; Frewen et al., 2011; Freyd & DePrince, 2001;
Hunt & Evans, 2004). For example, notable differences in survivors of interpersonal trauma
from individuals without such a history include a higher prevalence of psychological symptoms
(e.g., anxiety, depression, dissociation), impaired emotional and cognitive functioning, and
disruptions in self-concept and self-esteem (Bernsten & Rubin, 2007; Bluhm, 2009; Briere &
Scott, 2006; Frewen et al., 2010; Frewen et al., 2011; Freyd & DePrince, 2001; Hunt & Evans,
2004; Jobson & O’Kearney, 2008; McMullin, Wirth, & White, 2007). Despite the relatively high
prevalence of interpersonal trauma among college students and the importance of career
decisions for this population, few studies have attempted to elucidate predictors and modifiers of the relationship between the two and even fewer have assessed childhood maltreatment comprehensively (Albaugh & Nauta, 2005; Coursol et al., 2001; Gianakos, 1999; Hellmich, 1995; Quinn, 1998; Ryan et al., 1996; Strauser et al., 2006; Zvirblis, 2000).

In order to elucidate the predictors and modifiers of the relationship between childhood maltreatment and career decisions, a strong theoretical framework is necessary. One career development theory recently applied in the previous research with survivors of trauma is the social cognitive career theory (SCCT; Lent, Brown, & Hackett, 1994). Within the SCCT model (Lent & Brown, 2006; Lent et al., 1994; Lent, Brown, & Hackett, 2000), career decision self-efficacy, or CDSE (e.g., confidence to complete tasks involved with career decisions), is the result of a complex interaction of personal attributes (e.g., personality, ability, preferences, symptoms), historical contextual variables (e.g., family environment, life experiences), and learning experiences (e.g., behavioral repertoires). Specific factors associated with trauma, including deficiencies in emotion, cognition, self-esteem, and identity, have been theoretically and empirically linked to interference with some of the aforementioned SCCT constructs, suggesting that childhood maltreatment may disrupt various aspects of the career decision process, including CDSE (Albaugh & Nauta, 2005; Coursol et al., 2001; Ryan et al., 1996; Strauser et al., 2006; Swanson & Woitke, 1997).

The vast majority of the previous trauma literature is indicative of the presence of an array of detrimental outcomes (e.g., Briere & Elliot, 2003; Briere & Scott, 2006; Coker, Smith, McKeown, & King, 2000; Frewen et al., 2011; Lee & Tolman, 2006; McMullin et al., 2007). However, a more recent trend in the literature has resulted in a focus on mechanisms and resources that some survivors access in the wake of trauma that allow for post-traumatic growth
(Bogar & Hulse-Kilacky, 2006; Marx & Sloan, 2002; Orcutt, Pickett, & Pope, 2005; Thompson, Arnkoff, & Glass, 2011; Wind & Silvern, 1995). To imply that survivors of interpersonal trauma are destined for negative outcomes would mean ignoring those individuals who are able to access resources that foster post-traumatic growth, despite potential barriers, as well as the vast body of trauma research dedicated to resilience. Thus, in order to address the relationship between childhood maltreatment and the career decision process more comprehensively, one must consider the potential for differential outcomes and indirect relationships.

Several researchers have contended that career counselors cannot effectively assist survivors of interpersonal trauma without full consideration of relevant personal and contextual factors unique to the population, including both barriers and resources (e.g., Albaugh & Nauta, 2005; Brown, Reedy, Fountain, Johnson, & Dichiser, 2000; Morris, Shoffner, & Newsome, 2009; Swanson & Woitke, 1997). Further, while it has been suggested that empathically addressing barriers (i.e., deficiencies in emotion, cognition, and parental role-modeling) is equally important as identifying resources (i.e., coping skills, social support, and alternative role models) during the career decision process for survivors of interpersonal trauma, adequate empirical exploration of these factors has not been pursued (Brown et al., 2000; Morris et al., 2009; Ryan et al., 1996; Swanson & Woitke, 1997).

Explication of the relationship between interpersonal trauma and career decision factors could help survivors mitigate the deleterious effects of aversive psychological symptoms and deficiencies in emotion, cognition, self-esteem and identity, on this crucial developmental milestone, paving the way for career and life-satisfaction (Lent et al., 2011; Wright & Perrone, 2010). The current literature contains insufficient information for career counselors due to the lopsided focus on barriers rather than resources, potentially leaving trauma survivors without
thorough assessments or a full range of interventions (Coursol et al., 2001; Gianakos, 1999; Hellmich, 1995; Hyman, 2000; Lee & Tolman, 2006; Strauser et al., 2006; Swanson & Woitke, 1997). A more comprehensive understanding of the complex interactions between personal and contextual factors unique to survivors of interpersonal trauma is necessary so that barriers can be assessed and resources can be accessed in order to promote successful career decisions by way of fostering CDSE. When the potential differential impacts of trauma-related barriers (e.g., trauma-related psychological symptoms, disruptions in parental bonding, insecure attachment) and resources (e.g., alternative career-related role models) are understood in light of the career decision process, more accurate career assessment and intervention are likely to follow.

The current study was designed to extend the previous literature through 1) examination of the utility of the SCCT model in explicating aspects of the relationship between childhood maltreatment and career decisions; and 2) consideration of potential sources of mediation and moderation in the relationship between childhood maltreatment and CDSE. In light of the SCCT model, the current study examined the influence of personal (i.e., trauma-related symptoms) and background factors (i.e., childhood maltreatment) on CDSE, as mediated/ moderated by learning experiences (i.e., insecure attachment with a career-related mentor), with particular adaptations to the variables to reflect the experiences of survivors of childhood maltreatment. Additionally, personal factors were explored as a mediator/ moderator of the relationship between background factors and learning experience variables. Barriers and resources were explored as pertaining to severity of trauma-related symptoms (i.e., personal factors), childhood maltreatment (i.e., background factors), and insecure attachment with a career-related mentor (i.e., learning experiences).
The following chapter includes an overview of the research relevant to the current study. First, the review includes the current empirical and theory-based literature on interpersonal trauma, including specific types, severity and the broad range of identified outcomes. Next, the review includes the current empirical and theory-based literature regarding career decisions, with a particular focus on the SCCT model. Then, the literature addressing the intersection of interpersonal trauma and career decisions is reviewed. Finally, a description of variables, statement of purpose, and hypotheses is included.

Trauma

Trauma is a disorganizing event which an individual directly experiences or perceives as a significant threat to physical safety (Briere & Scott, 2006). According to the American Psychiatric Association, via the widely utilized *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association, 2013), trauma involves two primary criterion: 1) Personal or vicarious exposure to death, injury or threat of death and 2) Psychological response involving “fear, helplessness or horror.” Among the traumatizing events listed in the *DSM-5* are interpersonal violence (e.g., rape, childhood sexual assault, physical violence, kidnapping), natural disasters (e.g., fire, hurricane, earthquake), war and terrorism (e.g., torture, witnessing violent or mass death), severe accidental bodily injury (e.g., car accident, disease), and vicarious exposure through the direct experience of a family member, colleague, or close friend (American Psychiatric Association, 2013). Trauma that is perpetrated by another human being, including child abuse, intimate-partner violence, rape and sexual assault, is known as interpersonal trauma (Briere & Scott, 2006; van der Kolk et al., 2005).
Types of Interpersonal Trauma

Different types of interpersonal trauma have been defined in the research and applied literature, including physical, emotional/psychological and sexual abuse and neglect (Albaugh & Nauta, 2005; Briere & Scott, 2006; Hellmich, 1995; Murphy, 1996; Murphy & Hoover, 1999; Tjaden & Thoennes, 2000; Zvirblis, 2000). Further, the relative age at which interpersonal trauma occurs has also been used to define types of trauma and categorize participants for treatment intervention and research (Briere & Scott, 2006; Hellmich, 1995; Murphy & Hoover, 1999; Zvirblis, 2000). That is, distinctions are typically made between types of childhood maltreatment, including childhood sexual abuse (CSA), childhood physical abuse (CPA), childhood emotional/psychological abuse (CEA) and childhood neglect (CN), and interpersonal trauma that occurs exclusively in adulthood, typically referred to as adult sexual assault or rape (ASA) and intimate partner violence (IPV), which may include physical, emotional/psychological and sexual abuse (Briere & Scott, 2006; Murphy & Hoover, 1999; Smith, Thornton, DeVellis, Earp, & Coker, 2002). The aforementioned distinctions have been made due to the empirical and clinical observations regarding the likely impact of interpersonal trauma during different developmental periods of the lifespan as well as when the relationship of perpetrator and survivor differs (Briere & Scott, 2006). Following are basic definitions of general types of abuse, including developmentally-relevant distinctions.

Physical Abuse

Physical abuse includes behaviors that involve physical restraint or potential physical harm to the victim (Briere & Scott, 2006; Hellmich, 1995). Physical abuse can range from behaviors that may leave no physical marks, like holding or blocking, to behaviors that result in bruising, breaking, or bleeding, which may require medical attention, such as hitting, kicking,
scratching, shoving, or use of a weapon. It is notable that overt physical abuse rarely occurs in isolation without some form of emotional/psychological abuse (Leonard & Senchak, 1996; Murphy & Hoover, 1999).

_Emotional/Psychological Abuse_

Emotional or psychological abuse includes behavior or verbalized statements that are meant to establish or perpetuate power and control over the victim, often through the experience of fear, shame, guilt, coercion, and/or intimidation (Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Leonard & Senchak, 1996; Murphy & Hoover, 1999). Understanding how to stop or prevent emotional abuse is of particular concern to researchers and practitioners alike because it has been found to increase in frequency as an abusive relationship progresses (Follingstad et al., 1990) and that it precedes physical aggression in many abusive relationships (Leonard & Senchak, 1996). Additionally, some forms of psychological abuse are so aggressive and threatening that they occur in isolation from physical or sexual abuse (Coker et al., 2000; Smith et al., 2002). Further, emotional pain is processed in the same areas of the brain as physical pain (Damasio et al., 2000; Eisenberger, Lieberman, & Williams, 2003; Kross, Berman, Mischel, Smith, & Wager, 2011).

_Sexual Abuse_

Sexual abuse involves any unwanted or otherwise nonconsensual sexual act, ranging from nonconsensual exposure to pornographic material to rape, which includes penetration of oral, anal and/or vaginal orifices (Briere & Scott, 2006). Sexual assaults are more likely to be perpetrated by someone familiar to the victim rather than by a stranger, potentially including a family member, trusted family friend, neighbor, acquaintance, spouse, or dating partner (Singer,
Anglin, Song, & Lunghofer, 1995). Official police reports of sexual abuse and rape is estimated to be much lower than the rates of actual occurrence, due to the shame experienced by victims.

**Childhood Maltreatment**

With estimates ranging up to 40% for girls and nearly 20% for boys, child abuse and neglect represents a prevalent concern during a sensitive developmental period, potentially affecting an individual across their lifespan (Finkelhor et al., 1990; Lee & Tolman, 2006; Morrow & Smith, 1995). During 2006, there were 905,000 confirmed instances of child maltreatment in the United States (U.S. Department of Health and Human Services, 2008), including neglect (64.1%), physical abuse (16%), sexual abuse (8.8%), and emotional maltreatment (6.6%). In a random sample of adults, Briere and Elliott (2003) found 22.2% of women and 19.5% of men had reported CPA. Finkelhor et al., (1990) established that 27% of women and 16% of men in a community sample reported a history of CSA, indicating that most of the reported abuse occurred when the survivors were 9-10 years old. Briere and Elliott (2003) revealed CSA victims in a random sample of adults at the rates of 14.2% for men and 32.3% for women. The literature addressing long-term outcomes for survivors of childhood maltreatment has revealed a significant trend toward non-optimal development regarding physical health, psychological health, re-victimization, perpetration, and criminal activity (Briere & Elliott, 2003; Luthra & Gidycz, 2006; Milletich, Kelley, Doane, & Pearson, 2010).

**Sequelae of Trauma**

Researchers and practitioners have focused on long-term outcomes of survivors of childhood abuse because of the potential detrimental effects of abuse during a highly sensitive developmental period. Driven by clinical observation and the need for empirical validation of common trends observed in survivors of trauma, the resulting wave of research has been aimed
at identifying the full range of relevant sequelae in order to understand commonalities and plan more effective interventions (Briere, Elliottt, Harris, & Cotman, 1995; Foa, Cashman, Jaycox, & Perry, 1997; van der Kolk et al., 2005). Among the most researched areas pertaining to the long-term effects of trauma are mental health, cognitive processes, identity and attachment.

**Mental Illness**

The effects of various forms of interpersonal trauma have been frequently studied, particularly with regard to mental health outcomes in adulthood (Briere & Scott, 2006; Callahan, Price, & Hilsenroth, 2003; De Bellis, Hooper, Spratt, & Woolley, 2009; Perry, 2008; Wainrib, 2006). The effects of trauma range from basic emotional reactions, such as fear and helplessness to clinically significant psychiatric diagnoses. The specific symptoms and diagnostic conditions related to interpersonal trauma have become well-documented in recent years, including anxiety, depression, post-traumatic stress disorder (PTSD), personality disorders, dissociation, somatic symptoms, fatigue, phobias, obsessive-compulsive behaviors, attachment disorders, low self-esteem, and poor body image (Briere & Scott, 2006; Callahan et al., 2003; Clemmons, Walsh, DiLillo, & Messman-Moore, 2007; De Bellis et al., 2009; Lee & Tolman, 2006; Perry, 2008; Wainrib, 2006). Childhood maltreatment has been associated with pervasive mental health symptoms and conditions (Callahan et al., 2003; Clemmons et al., 2007; De Bellis et al., 2009; Gross & Keller, 1992; Lee & Tolman, 2006; Perry, 2008; Silvern, Karyl, Waelde, & Hodges, 1995). Childhood maltreatment seems to be particularly relevant to long-term mental health outcomes (Briere & Scott, 2006; Callahan et al., 2003; Clemmons et al., 2007; Gross & Keller, 1992; Lee & Tolman, 2006). CSA, in particular, has been related to adulthood symptoms of depression, anxiety and PTSD (Briere & Scott, 2006). Adulthood depression and low self-esteem have been empirically related to childhood emotional abuse (Callahan et al., 2003; Gross &
Keller, 1992; Lee & Tolman, 2006; Perry, 2008; Silvern et al., 1995). In addition, the experience of psychological abuse has been associated with increased levels of distress and anxiety (Clemmons et al., 2007). Factors contributing to the presence and duration of trauma-related symptoms include, an older age during the last assault, higher number of trauma events, perpetration of sexual assault by oral, anal or vaginal penetration, and level of distress at the time of the last assault (Briere & Elliot, 2003).

Cognitive Processes

Some of the more recent research involving survivors of various forms of interpersonal violence has focused on the cognitive effects of abuse as related to changes in beliefs about self and others, values, and basic world-views (Berger, 1998; Black & Pearlman, 1997; Frewen et al., 2011; Goldsmith, Freyd, & DePrince, 2009; van der Kolk et al., 2005). Childhood maltreatment is significantly more likely to result in loss of spiritual beliefs, loss of trust, distorted beliefs about self, viewing self as permanently damaged, and feeling perpetually misunderstood (Elsesser, Freyth, Lohrmann, & Sartory, 2009; van der Kolk et al., 2005). Self-referential processing can be disrupted by trauma, including alterations to the processes through which an individual categorizes information about themselves, often resulting in negative self-perceptions (Frewen et al., 2011). Survivors of trauma are also more likely to experience impediments to learning via disruptions in memory functioning and in the execution of cognitive abilities (Berger, 1998; Gupta, Koscik, Bechara, & Tranel, 2011; Kira, Lewandowski, Somers, Yoon, & Chiodo, 2011). Similarly, childhood maltreatment predicts lower expectations of future academic success and employment stability (Thompson et al., 2011). Further, trauma-centered goals, self-cognitions, and memories are more typical of PTSD-diagnosed trauma survivors in cultures that foster personal independence, but not collectivistic cultures that foster interpersonal
interdependence (Jobson & O’Kearney, 2008). That is, trauma appears to result in greater alterations to cognitive processes for trauma survivors of cultures that emphasize independence, such as the United States.

**Experiential Disposition**

Experiential disposition refers to an individual’s orientation toward experiential acceptance, or the experiencing of internal data (e.g., thoughts, emotions, memories), or toward experiential avoidance, or the suppressing or repressing of internal data. Experiential avoidance involves active attempts to reduce contact with the experience of internal or external stimuli, including thoughts, emotions, and behaviors. Experiential avoidance is the opposite of experiential acceptance, which involves a moment-to-moment awareness, or being present, and allowing thoughts and emotions to come and go without trying to change, suppress or hang onto them (Tull, Gratz, Salters, & Roemer, 2004). Experiential avoidance is one process included in the Acceptance and Commitment Therapy (ACT) theoretical model of psychological inflexibility that has been applied to the trauma domain with great success (Merwin et al., 2009; Orcutt et al., 2005; Rosenthal, Hall, Palm, Batten, & Follette, 2005). Previous research has identified experiential avoidance as a significant predictor of PTSD symptoms (Fortier et al., 2009; Merwin et al., 2009; Orcutt et al., 2005; Rosenthal et al., 2005; Tull et al., 2004).

**Identity**

Many survivors of trauma have a marked difficulty establishing aspects of identity and separating their experience of trauma from their identity (Berger, 1998; Jobson & O’Kearney, 2008; Johnson, Sheahan, & Chard, 2003; Robinaugh & McNally, 2011). That is, many trauma survivors seem to define themselves and their life-possibilities around their experience of trauma (Berger, 1998; Quinn, 1998; Robinaugh & McNally, 2011). Common trends identified in
Berger’s (1998) qualitative work include disruption in the formation of general self-concept, disturbance in vocational self-concept, identification as victimized as opposed to identifying with other aspects of self (e.g., race, ethnicity, personality, sexuality). For example, Berger (1998) found that trauma survivors were more likely to perceive themselves as imposters and as having a “black core” while non-abused women associated themselves with having a credible sense of self and acknowledgement of difficulties and strengths. Identification with the “victimized self” has been conceptually related to impaired self-preservation, difficulty with assertiveness and setting boundaries, vulnerability to dangerous situations, re-victimization, self-blame, diminished hope and planning for the future, and diminished self-care (Berger, 1998; Quinn, 1998; Thompson et al., 2011).

Several researchers have explored the effects of adopting a trauma-centered identity, revealing that the tendency to adopt traumatic events as central to one’s personal narrative or identity is related to greater symptoms of psychological distress (Berntsen & Rubin, 2006, 2007; Berntsen et al., 2011; Robinaugh & McNally, 2011). Even later in life, negative and potentially traumatic events continue to affect the autobiographical personal narrative, likely through the strong emotional salience (Berntsen et al., 2011). The degree to which the traumatic event remains central over time has been found to predict pervasive psychological distress (Berntsen et al., 2011). Trauma-centered identity is thought to influence current behaviors and future outcomes, which could include vocational choices and planning (Berger, 1998). In fact, survivors of childhood abuse have reported viewing life as loss, seeing limited options, lacking in life-dreams, and struggling to establish an identity while non-abused women identified with viewing life as having specific losses/disappointments, seeing many options, having life-dreams, and attempting to maintain a life-course (Berger, 1998; Thompson et al., 2011).
Attachment

According to attachment theorists, the quality and pattern of early caregiver relationships is internalized, becoming a template for future relationships (Ainsworth, 1989; Bowlby, 1982). Generally, secure attachments are formed when an infant’s caregiver provides stable, consistent care and concern that the infant can reliably depend on. Insecure attachments are formed when care is neglectful, abusive or otherwise inconsistent, leaving the infant without a sense of security. Disruption to the development of a secure attachment style due to childhood maltreatment is noted in the trauma literature (Briere & Scott, 2006; Riggs & Kaminski, 2010; Varra, Pearlman, Brock & Hodgson, 2008). Specifically, insecure attachment styles in adulthood are associated with depression, anxiety and low self-esteem (Kenny & Sirin, 2006; Riggs & Kaminski, 2010). The intersection of adult attachment style and emerging adulthood demonstrates the significance of attachment style in a host of developmental contexts, including social relationships, self-worth, well-being, life satisfaction and career decisions (Blustein, Walbridge, Friedlander & Palladino, 1991; Hazan & Shaver, 1990; Kenny & Sirin, 2006; Lease & Dahlbeck, 2009; O’Brien, Friedman, Tipton, & Linn, 2000; Riggs & Kaminski, 2010; Ryan et al., 1996; Tokar, Withrow, Hall & Moradi, 2003; van Ecke, 2007; Vignoli, 2009; Wolfe & Betz, 2004; Wright & Perrone, 2010).

Resiliency to the Effects of Trauma

The spectrum of effects common to trauma survivors of varying experiences, including adult survivors of child abuse and neglect, is well-documented in the literature (Briere & Scott, 2006; Callahan et al., 2003; Perry, 2008). However, the relationship between detrimental psychological outcomes and childhood maltreatment is also mediated by a host of factors (Berger, 1998; Bogar & Hulse-Killacky, 2006; Fortier et al., 2009; Lew, 1988; Philippe,
Laventure, Beaulieu-Pelletier, Lecours, & Lekes, 2011; Tull et al., 2004). Even under exposure to similar traumatic events, individual responses to trauma vary, depending on a multitude of factors, such as previous trauma history, social support, stress tolerance, individual strengths with regard to coping and psychological flexibility, ego-resilience, age, type of trauma, proximity to traumatizing material, pre-existing psychiatric conditions, and physiological and neurological factors (Belsher, Ruzek, Bongar, & Cordova, 2011; Bogar & Hulse-Killacky, 2006; Briere & Scott, 2006; Fortier et al., 2009; Morrow & Smith, 1995; Perry, 2008; Philippe et al., 2011; Wind & Silvern, 1995). Specifically, ego-resiliency, or basic adaptive flexibility to the demands of one’s environment, mediates the relationship between trauma and depression, self-harm and anxiety (Philippe et al., 2011). Fortier et al. (2009) found that avoidance coping resulted in higher rates of revictimization and trauma symptomology in survivors of CSA. A host of researchers have also explored the resiliency and strengths of trauma survivors, including mindfulness, acceptance, tolerance for other’s behavior, helpfulness, delay of gratification, and patience (Berger, 1998; Bogar & Hulse-Killacky, 2006; Lew, 1988; Philippe et al., 2011; Tull et al., 2004). Exploring the role of an alternative attachment figure, such as a career-related mentor, may help to foster an understanding of potential source of resilience in terms of career decisions.

Summary of Trauma Literature

An overwhelming majority of the research in the trauma domain has been primarily focused on the description and explanation of the effects of various forms of trauma and on the development of appropriate treatment interventions to ease psychological states and conditions resulting from trauma exposure (Briere & Scott, 2006; Perry, 2008; Silvern et al., 1995; Wainrib, 2006). Intervention services for trauma survivors often involves therapeutic counseling services focused on symptom remission, likely due to the psychological sequela of trauma, often without
consideration of the impact of trauma on specific developmental tasks, such as career development and progress (Briere & Scott, 2006). While the aforementioned research efforts have garnered invaluable insights, little attention has been focused on the potential impact of the social, structural and environmental factors associated with childhood maltreatment on the broader spectrum of adulthood developmental milestones, including vocational development (Albaugh & Nauta, 2005; Chronister & McWhirter, 2004; Coursol et al., 2001; Hellmich, 1995; Lee & Tolman, 2006; Quinn, 1998; Ryan et al., 1996; Strauser et al., 2006; Zvirblis, 2000).

Vocational Development

While social and economic changes have resulted in some alteration, the concept of career can still be loosely defined as a lifelong network of work-related roles and experiences (Osipow & Fitzgerald, 1996). Developmental theorists have traditionally considered aspects of vocational development as an indication of healthy or positive adult development (e.g., Erikson, 1974; Super, 1990). Super’s theory of career development across the lifespan marks several stages beginning in early adulthood that involve adjusting to life-roles, centered primarily on vocation. Vocational behavior has been conceptualized as actions involved in engaging in an occupational role, including career choice and transition (Crites, 1981). Though it would be a significant stretch to say that vocational development is the single indicator of positive developmental outcomes, vocational fitness certainly has the potential for long-term impact on a number of factors in later adulthood (Callahan & Kidd, 1986; Coogan & Chen, 2007). That is, vocational choice can have major implications for health (e.g., access to health-insurance, hazards of work-environment), retirement (e.g., access to social security benefits, ability to accrue savings, 401k options), living conditions (e.g., qualification for housing loans, ability to afford basic needs for self and family) and psychological well-being (Callahan & Kidd, 1986).
Greater satisfaction with one’s chosen career has been correlated with positive ratings of self-esteem, general life-satisfaction (Callahan & Kidd, 1986), and is rooted in the career decision process (Bandura et al., 2001; Lent et al., 2011). Further, vocational problems have historically been related to problems with the career decision process (Osipow & Fitzgerald, 1996). An explicit, intentional career decision process, then, can be thought of as a foundational component to career development (Eun, Sohn, & Lee, 2013). However, recent rates of college-student vocational development suggests that approximately half are undecided, some demonstrating long-term, or chronic, indecision (Guay, Ratelle, Senécal, Larose, & Deschênes, 2006). Problems in career decisions have been related to low self-efficacy, absence of goals, aversive emotions (e.g., anxiety), conflicting choices, values or life-roles, lack of information, and difficulty integrating knowledge of self with knowledge of work (Eun et al., 2013; Osipow & Fitzgerald, 1996). In this light, it seems reasonable that further exploration of the career decision process is likely to reveal factors potentially affected by interpersonal trauma.

**Vocational Decision-Making**

Career decisions have historically been of interest within industrialized societies for the critical role in long-term career and life-satisfaction (Eun et al., 2013; Lent et al., 2011; Wright & Perrone, 2010). The development of a consistent career path has been empirically linked to the career decision process (Eun et al., 2013; Lent et al., 2011). Osipow (1975) proposed that meaningful occupational choice is bound by three conditions: 1) there are choices, 2) motivation to choose is present, and 3) the individual is free to choose. Optimal career choice is generally thought to be a function of congruence between factors associated with occupations and personal factors (e.g., interests, abilities, values, and preferences). Thus, the career decision process is meant to elucidate these factors and allow for the best possible fit (Eun et al., 2013). Sources that
underlie personal factors are largely the subject of career decision theory and include a variety of factors. Vocational choice has been empirically related to family influence (Bandura et al., 2001; Fan, Cheung, Leong, & Cheung, 2014; Lee & Kim, 2015; Roe, 1956; Workman, 2015), personality (Lucas, 1993; Saka & Gati, 2007; Wang, Jome, Haase, & Bruch, 2006), exposure to occupationally related skills and abilities (Lopez & Andrews, 1987), identity (Cohen, Chartrand, & Jowdy, 1995), self-esteem (Lin, Wu, & Chen, 2015), self-efficacy (Bandura et al., 2001; Betz, Hammond, & Multon, 2005; Lent et al., 1994), goals (Dik et al., 2008) and access to opportunities, including education (Lent et al., 1994).

Career indecision may exist when an individual perceives that there are no choices, too many choices, unexplored choices, discrepancy between choices and reality, or anxiety about making a career choice (Osipow & Fitzgerald, 1996). Factors that interfere with career choice can include internal barriers (e.g., psychological distress, irrational thoughts, inaccurate beliefs about abilities) and external barriers (e.g., limited access to training, lack of financial resources, pressure from family or spouse). Research on internal barriers indicates that people with high anxiety, low self-esteem, low levels of autonomy and high levels of external locus of control are common among individuals with pervasive vocational indecision (Eun et al., 2013; Guay et al., 2006). Further, higher self-esteem has been related to broader ranges of career choices including non-traditional occupations (Bandura et al., 2001; Betz & Schifano, 2000). A multitude of theories, models and processes have been developed in an attempt to further elucidate potential difficulties during career decisions, including the integration of social learning theory principles (Bandura et al., 2001; Krumboltz, 1979; Lent et al., 1994).
Social Cognitive Career Theory

One theory based on social learning principles that has been utilized in previous research to conceptualize the career development and decision-making difficulties of trauma survivors is the SCCT (Brown et al., 2000; Chronister & McWhirter, 2004, 2006; Lent et al., 1994). Based on Bandura’s (1986, 1997) social learning theory, the SCCT allows for consideration of factors associated with an individual’s family history, personal attributes, learning experiences, self-confidence and expectations in the career decision process (Bandura et al., 2001; Brown et al., 2000; Lent & Brown, 2006; Lent et al., 1994, 2000). Thus, the SCCT model allows for the consideration of factors associated with an individual’s perceptions of self, values, attributes, self-confidence, personal style, emotional processing, ability to introspect and plans future actions (Brown et al., 2000; Lent & Brown, 2006; Lent et al., 1994, 2000). According to the SCCT model, career choice behaviors, including identification of career-related interests and goals, are affected by complex interactions between personal factors, background factors, learning experiences, and CDSE, which are described in more detail below (Brown et al., 2000; Lent & Brown, 2006; Lent et al., 1994, 2000). Further, the SCCT model is suggestive of several potential sources of mediation and/or moderation in the relationships between predictor and outcome variables that may be crucial to reaching a better understanding of the relationship between childhood maltreatment and career decisions.

Personal factors involve variables attributed to the individual, including genetic traits and abilities, gender, race/ethnicity, personality, decision-making style and physical and mental health conditions (Brown et al., 2000; Eun et al., 2013; Lent & Brown, 2006; Lent et al., 1994, 2000; Rogers, Creed, & Glendon, 2008). Personal factors are directly linked to background factors and are thought to be mediated or moderated by learning experiences, reflecting the
impact of learned cognitive styles and emotional states on the career decision process (Chronister & McWhirter, 2003; Swanson & Woitke, 1997). Personality traits, including levels of extraversion, shyness, and indecisiveness, have been related to differential outcomes in career decisions (Di Fabio, Palazzeschi, Asulin-Peretz, & Gati, 2013; Rogers et al., 2008; Saka & Gati, 2007; Wolfe & Betz, 2004). Disturbances in personality or identity (e.g., dissociation), knowledge of which is considered a necessary part of identifying interests and selecting specific career options and goals (Dik et al., 2008; Ryan et al., 1996; Swanson & Woitke, 1997), can undermine the range of choices, expressed interests and/or goals pursued (Brown et al., 2000; Chronister & McWhirter, 2004; Thompson et al., 2011; Wolfe & Betz, 2004). Recent research has indicated that career decision difficulties rooted in internal and emotional sources as well as those resulting in the prevention of decision-making altogether are perceived as being the most severe by career counselors (Eun et al., 2013; Gati, Amir, & Landman, 2010). That is, career decision difficulties rooted in disruptions to self-esteem, identity, and affect-regulation appear to be the most severe (Eun et al., 2013; Gati, Amir, & Landman, 2010). Individual functioning is theoretically and empirically related to background factors, including the immediate or historical family environment (Brown et al., 2000; Lent et al., 1994; Lee & Kim, 2015; Swanson & Woitke, 1997). What is unclear, however, is whether the established direct relationship between personal factors and background factors is indicative of mediation or moderation of another variable, such as learning experience variables of the SCCT model.

Background factors include both proximal and distal environmental influences (e.g., family environment, parental style, socioeconomic status) that affect access to and types of learning experiences (Brown et al., 2000; Lee & Kim, 2015; Lent & Brown, 2006; Lent et al., 1994, 2000; Thompson & Dahling, 2012). Background factors specifically related to the family
environment may include parental style, family dynamics, and parental involvement in career-related activities (Bandura et al., 2001; Brown et al., 2000; Dietrich & Kracke, 2009; Ferry, Fouad, & Smith, 2000; Keller & Whiston, 2008; Lee & Kim, 2015; Lent & Brown, 2006; Lent et al., 1994, 2000; Magnuson & Starr, 2000; Nauta & Kokaly, 2001; Stringer & Kerpelman, 2010; Wolfe & Betz, 2004; Workman, 2015). Childhood maltreatment represents a complex, multidimensional Background Factor that likely influences CDSE through the influence of other variables (i.e., via mediation or moderation).

Career-related learning experiences, whether direct or vicarious, include events in an individual’s life from which they derived information about themselves, including capabilities, interests and potential (Brown et al., 2000; Lent & Brown, 2006; Lent et al., 1994, 2000). Direct learning experiences could involve academic and extracurricular experiences as well as knowledge about the self that is learned in the home environment via attachment relationships. Vicarious learning experiences are often derived from mentors or role models (Bandura et al., 2001; Dietrich & Kracke, 2009; Fried & MacCleave, 2009; Keller & Whiston, 2008; Nauta & Kokaly, 2001; Stringer & Kerpelman, 2010; Workman, 2015). The outcomes of career-related learning experiences provide the foundation for successful career decisions, including accurate knowledge of self, abilities and interests, knowledge about a broad range of potential occupations, management of anxiety, self-esteem and decision-making skills (Bandura et al., 2001; Brown et al., 2000; Lent & Brown, 2006; Lent et al., 1994, 2000). Direct and vicarious learning experiences are influenced by personal and background factors and serve as a source of self-efficacy (Bandura et al., 2001; Brown et al., 2000; Lee & Kim, 2015; Lent & Brown, 2006; Lent et al., 1994, 2000).
Hinging on the proposition that thoughts mediate behavior (Bandura, 1986, 1997), CDSE involves an individual’s perception of their ability to gather and evaluate resources in order to make a career decision (Bandura et al., 2001; Lent et al., 1994, 2000). According to the SCCT model, self-efficacy is derived largely from learning experiences and influences outcome expectations, interests, goals and actions (Bandura et al., 2001; Lent et al., 1994, 2000). Further, CDSE includes confidence in the following four career decision components: 1) accurate self-appraisal, 2) problem solving, 3) planning, and 4) gathering information (Betz, Klein, & Taylor, 1996). CDSE is a critical component of successful career decision and a predictor of the stability of career-related interests and goals (Bandura et al., 2001; Betz et al., 1996; Betz & Schifano, 2000; Brown et al., 2000; Lee & Kim, 2015; Lent & Brown, 2006; Lent et al., 1994, 2000), which can affect long-term career and life satisfaction (Lent et al., 2011; Wright & Perrone, 2010). CDSE has been empirically linked to career choice, range of alternatives, persistence, career identity and career indecision (Betz & Schifano, 2000; Creed, Patton, & Prideaux, 2006; Guay et al., 2006; Stringer & Kerpelman, 2010; Sullivan & Mahalik, 2000; Verbruggen & Sels, 2010; Wang, Jome, Haase, & Bruch, 2006). CDSE has also been used to predict academic outcomes (Peterson, 1993), attitudes toward career decisions (Luzzo, 1993), fear of vocational commitment (Betz & Serling, 1993; Wolfe & Betz, 2004), and career exploration (Blustein, 1989; Solberg, Good, Fischer, Brown, & Nord, 1995). Thus, the role of CDSE within the career decision process is an essential factor to consider, especially when working with individuals expressing high levels of indecision, indicating potential disruptions in underlying processes related to personal or contextual factors.

Career choice behaviors are evident in specific career decision actions (e.g., seeking information about careers) and represent the fruits of the decision-making process (Lent et al.,
2000). Low engagement in career choice behaviors is indicative of career indecision, whether situational or chronic (Wolfe & Betz, 2004). Wolfe and Betz (2004) assert that low engagement in career choice behaviors is rooted in a fear of committing oneself to a particular decision, resulting in a chronic indecisiveness. Failure to engage in career choice behaviors as a result of chronic indecision is widely considered the most pervasive threat to college students’ career choice process (Amir, Gati & Kleiman, 2008). Several studies have linked chronic indecisiveness and otherwise less desirable career decision outcomes to disruptions in childhood attachment (Blustein et al., 1991; Lease & Dahlbeck, 2009; Lee & Kim, 2015; O’Brien et al., 2000; Ryan et al., 1996; Tokar et al., 2003; van Ecke, 2007; Wolfe & Betz, 2004). Chronic indecisiveness has only been moderately related to CDSE (Creed & Patton, 2006; Wolfe & Betz, 2004), suggesting that interventions designed to increase engagement in career choice behaviors by increasing confidence in career decision tasks may not be enough when disruptions in early family dynamics (e.g., inappropriate parenting practices, child abuse) are present. That is, addressing beliefs associated with future career performance and outcomes may be of added benefit.

Within the framework of the SCCT model, career decisions are affected by a host of internal and external factors. Cognitive and social-cognitive aspects of career decisions underlie the range and specificity of alternatives, perception of abilities, expectations for success and satisfaction, and determination of interest. The SCCT model is an appropriate theoretical lens through which to consider the career development processes of survivors of childhood maltreatment due to the attention to personal attributes and influence of social and environmental factors. The SCCT model is sufficiently structured for the exploration of career decision difficulties related to the complex interaction between interpersonal, familial, cultural,
environmental, societal and intrapersonal variables in the context of social learning through role models, social support, and development of skills relevant to career decisions through reinforcement. Specifically, the framework of the SCCT model is suggestive of interactions between personal factors, background factors, learning experiences, and CDSE that can be explored in an effort to better understand potential career decision difficulties for survivors of childhood maltreatment.

Intersection of Interpersonal Trauma and Vocational Development

Despite the plethora of research indicating an array of potential physical and psychological health problems related to exposure to trauma (Callahan et al., 2003; Ullman & Brecklin, 2003), researchers have had only minimal success elucidating the empirical pathway linking interpersonal trauma with dysfunction in vocational outcomes (Albaugh & Nauta, 2005; Lee & Kim, 2015; Ryan et al., 1996). While the descriptive nature of trauma research is necessary, it is not sufficient. A more comprehensive, dynamic understanding of the impact of abuse across the lifespan, focusing on major developmental tasks is necessary in order to extend the practical utility of previous trauma research (Chronister et al., 2004). One such developmental milestone with the potential to influence long-term outcomes is the career decision process that typically occurs during emerging adulthood (Arnett, 2000; Bandura et al., 2001; Eun et al., 2013). While relatively few studies have been focused on the intersection of attachment and career decisions (e.g., Bandura et al., 2001; Betz & Serling, 1993; Blustein, 1989; Blustein et al., 1991; Hazan & Shaver, 1990; Lee & Kim, 2015; O’Brien et al., 2000; Ryan et al., 1996; Tokar et al., 2003; van Ecke, 2007; Vignoli, 2009; Vignoli, Croity-Belz, Chapeland, de Fillipis, & Garcia, 2005; Wolfe & Betz, 2004), there are equally few studies that have been focused exclusively on the intersection of trauma and vocational development (Albaugh &
Nauta, 2005; Brown et al., 2000; Chronister & McWhirter, 2004, 2006; Coursol et al., 2001; Gianakos, 1999; Ibrahim & Herr, 1987; Morris et al., 2009; Strauser et al., 2006), and even fewer studies that have been focused specifically on the effects of childhood maltreatment on career decisions (Berger, 1998; Hellmich, 1995; Lew, 1988; Liem, O’Toole & James, 1992; Murphy, 1996; Quinn, 1998; Zvirblis, 2000) or more distant career outcomes (Hyman, 2000; Lee & Tolman, 2006). Further, much of the literature regarding the effects of interpersonal trauma on vocational factors has been approached from theoretical and applied/intervention-based perspectives, frequently involving participants seeking services for adult intimate partner violence (Albaugh & Nauta, 2005; Brown et al., 2000; Chronister & McWhirter, 2004, 2006; Gianakos, 1999; Ibrahim & Herr, 1987; Morris et al., 2009; Swanson & Woitke, 1997). In sum, the existing literature indicates that the intersection of childhood maltreatment and career decisions lacks empirical consistency and has not been adequately addressed.

While theoretical and operational inconsistencies within the established literature illustrate the need for a more efficient and focused approach, the existing data-points in the literature suggest the direction and theoretical structure for future research. Evaluating the full range of contributions from the established literature requires attending to clinical observations and intervention-based articles as well as the empirically-based research. The following review is provided to address, in greater detail, the aforementioned research at the intersection of career development and attachment, adult IPV, trauma symptoms, and childhood maltreatment. In addition, the empirical and theoretical inconsistencies are summarized.

Attachment

Researchers have focused on attachment as a source of influence on the career decision process due to the hypothesis that early attachment relationships serve as a major source of self-
confidence and is essential for adolescent self-exploration (Blustein et al., 1991; Lease & Dahlbeck, 2009; Lee & Kim, 2015; Ryan et al., 1996). The exact route of influence has been the primary focus of investigation, often including measures of attachment as well as psychological separation, which has been described in terms of freedom from aversive emotions toward parental figures, ability to manage daily tasks without parental interference, and the freedom to adopt and express ideas that are different from parental figures (e.g., Blustein et al., 1991; O’Brien et al., 2000; Wolfe & Betz, 2004). The major findings from the literature at the intersection of career development and attachment have included the following: attachment styles affect career decision outcomes differently for men and women (Blustein et al., 1991; Lease & Dahlbeck, 2009; Lee & Kim, 2015; Ryan et al., 1996), insecure attachment styles are associated with lower CDSE (Blustein et al., 1991; O’Brien et al., 2000; Ryan et al., 1996) and greater career indecision (Blustein et al., 1991; Tokar et al., 2003; van Ecke, 2007; Vignoli, 2009; Wolfe & Betz, 2004; Wright & Perrone, 2010), and attachment styles affect work-related needs/values (Hazan & Shaver, 1990). Pertinent details regarding the procedures and results from the relevant literature must be discussed in order to provide a more comprehensive view of the role that attachment style plays with regard to various aspects of the career development process.

Blustein et al. (1991) explored the role of attachment to and psychological separation from parents on the career development process for a sample of 178 college students included a 2-part study of participants whose parents were separated and participants whose parents were still together. The authors employed one measure of parental attachment, one measure of psychological separation from parents, a measure of vocational exploration and commitment, and a measure of ideational foreclosure (Blustein et al., 1991). In first part of the study, which
involved only college students whose parents were currently separated or divorced, the authors reported that their model did not reach significance, potentially due to disruptions in the attachment or psychological separation process (Blustein et al., 1991). In second part of the study, which involved only college students whose parents were currently together or married, the authors found that women indicated greater career choice commitment and lower foreclosure when they also indicated at least a mediate level of attachment to and conflictual independence from both parents (Blustein et al., 1991). Results for the men in the second part of the study indicated that conflictual independence from and attachment to their fathers, but not their mothers, predicted greater levels of career choice commitment (Blustein et al., 1991). Blustein et al. (1991) surmised that the lack of significance found in the first part of the study was likely a result of disruptions in the attachment and psychological independence processes due to issues around their parents’ separation or divorce. Further, Blustein et al. (1991) highlighted the importance of attachment to and separation from parental figures on the developmental processes of emerging-adulthood, including career development. The results of Blustein et al. (1991) provides further support for the measurement of broader attachment styles and closer attention to underlying disruptions to the attachment and separation processes.

Ryan et al. (1996) explored the role of attachment to parents and perceptions of family dysfunction on CDSE, utilizing a sample consisting of 220 community college students. Ryan et al. (1996) utilized one measure of family dysfunction, one measure of parental attachment and one measure of career search self-efficacy. After analyzing the entire sample using a simultaneous regression, the authors separately analyzed male (n = 111) and female (n = 106) samples. Ryan et al. (1996) found that attachment to both parents was predictive of career search self-efficacy for the combined sample, while only attachment to mother was predictive of career
search self-efficacy for the male sample. For the female sample, family dysfunction and attachment to mother were predictive of career search self-efficacy (Ryan et al., 1996). The implications of Ryan et al. (1996) include that the career decision process is more affected by family dysfunction for women than for men and that attachment security with mother is especially salient for both men and women.

In a 5-year longitudinal study of 207 women, beginning when they were high-school seniors, O’Brien et al. (2000) explored the link between parental attachment, career aspirations and perceptions of career self-efficacy. Measures utilized in the study included inventories of parental attachment, psychological separation/independence from parents, CDSE, career aspirations, career choice, career choice congruence, and future career-family goals. O’Brien et al. (2000) found that higher levels of career self-efficacy were related to higher career aspirations. In addition, the authors found that separation from parents was less predictive of career self-efficacy and career aspirations than attachment to parents. Further, attachment to parents was found to directly affect career self-efficacy, albeit with small effect sizes, which the authors attribute to the role of unmeasured variables (O’Brien et al., 2000). It is notable that the authors measured attachment to parental figures but did not measure general attachment style, particularly given the developmental shift from the importance of parental relationships to adult romantic or peer relationships for this age-group (O’Brien et al., 2000). In light of the results from O’Brien et al. (2000), it seems plausible that future research should include further exploration of the role of intervening variables and adult-attachment styles.

Tokar et al. (2003) also investigated the relationship between the career development process, parental attachment and psychological separation, using 350 college students as participants. The authors used a measure of psychological separation, a measure of adult
attachment style, a measure of vocational self-concept, and a measure of career indecision. Results indicated that attachment and psychological separation functioned differently for maternal and paternal parental figures. That is, participants who indicated greater psychological separation from their mothers indicated greater levels of vocational self-concept and lower career indecision, while greater psychological separation from fathers was related to lower vocational self-concept and greater career indecision (Tokar et al., 2003). Further, Tokar et al. (2003) also found that insecure attachment was related to greater career indecision and lower vocational self-concept. The authors hypothesized that the role of father becomes more prominent as an emerging adult moves toward career decisions, due to the function of career-related role-modeling (Tokar et al., 2003). It is notable that Tokar et al. (2003) did not restrict participation to traditional college-aged adults, in an effort to increase generalizability of the results, and that they did not measure family dynamics (e.g., separation/divorce, abuse).

In an exploration of the influence of attachment specifically on CDSE and career commitment, Wolfe and Betz (2004) utilized a sample of 304 college students and employed a measure of parental and peer attachment, a measure of attachment style, a measure of CDSE and a measure of career-decision commitment. The authors found that CDSE and commitment were predicted by measures of both parental and peer attachments, as well as attachment styles. Insecure attachment styles (i.e., dismissive, anxious, and preoccupied) predicted lower levels of career decision indicators, while a secure attachment style predicted higher levels of career decision indicators (Wolfe & Betz, 2004). More specifically, a dismissive attachment style was predictive of lower CDSE and the anxious and preoccupied attachment styles were predictive of higher fear of career commitment (Wolfe & Betz, 2004). Further, the secure attachment style was predictive of lower fear of career commitment and career indecision. These findings help to
further clarify the relationship between attachment and career decisions by including measures of broader attachment styles and focusing on CDSE, a central construct in the SCCT model.

Vignoli et al. (2005) extended the existing literature by addressing the role of anxiety in addition to attachment style and parenting style, hypothesizing that “exploratory activity” would be greater for adolescents who were securely attached to their parents. Conducted in France, Vignoli et al. (2005) utilized a sample of 283 high school adolescents in their senior year. Inventories employed in the study included one measure of parental attachment, one measure of trait anxiety related to career development concerns, one measure of general trait anxiety, one measure of parenting style (i.e., permissive, authoritative, authoritarian), one measure of engagement in career exploration, and one measure of satisfaction with current career exploration progress. The authors found that general anxiety and neglectful parenting style predicted lower rates of career exploration activities for girls, while secure attachment to mother and specific fears of failure related to career strivings were related to higher rates and greater variety of career exploration tasks for girls (Vignoli et al., 2005). More specifically, secure attachment to mother, but not father predicted girls’ engagement in career-related information seeking from relatives. The authors found a different trend for boys, including that higher levels of career exploration were predicted by higher levels of fear of disappointing their parents (Vignoli et al., 2005). It is notable that attachment to parents did not seem affect boys’ engagement in career exploration tasks, while attachment to mother was influential for girls. Further, general anxiety was associated with the self-perception of not being well-informed about career interests for both boys and girls, implicating the importance of emotional stability and confidence in the career exploration process (Vignoli et al., 2005).
Van Ecke (2007) explored the attachment styles and career-related thoughts of 46 Dutch and Belgian adult immigrants in the United States. Van Ecke (2007) utilized one measure of adult attachment styles and one measure of career thoughts. The results of this study indicated that participants indicating a more secure attachment style reported fewer dysfunctional career-related thoughts, while participants with less secure attachment styles reported a greater level of dysfunctional career-related thinking (van Ecke, 2007). The results from van Ecke (2007) lend further support for the influence of attachment on vocational development and extend the previous literature through a departure from the traditional college student sample, indicating that attachment styles affect vocational development across the life-span.

Lease and Dahlbeck (2009) extended the literature by including measure of parental authority style as well as parental attachment. Utilizing a sample of 257 college students, the authors included a measure of CDSE, a measure of career-decision-making characteristics, a measure of parental attachment, and a measure of parental authority style (Lease & Dahlbeck, 2009). Results indicated that paternal authority style was predictive of female participants’ career decision self-efficacy, but not of males. Further, maternal attachment and parenting style was only predictive of female participant’s CDSE, with lower maternal attachment and higher authoritarian parenting style relating to lower CDSE (Lease & Dahlbeck, 2009). The work of Lease & Dahlbeck (2009) is unique because of the inclusion of parenting style; however, the authors indicated that the power of the study was compromised, which may have obscured significant relationships between attachment and career decision variables.

In an extension of his previous work, Vignoli (2009) explored the impact of self-esteem and attachment to parents on the career decision process for high school adolescents. Participants included 241 French high school seniors. Vignoli (2009) utilized one measure of career
indecision, one measure of attachment to parents and one measure of self-esteem. The results from Vignoli (2009) indicate that the effects of attachment on career indecision are mediated by self-esteem. More specifically, self-esteem mediated the relationship between participants’ attachment to their same-sex parent and their career indecision, indicating the importance of role-modeling and attachment security for adolescents (Vignoli, 2009).

In a particularly relevant study, Wright and Perrone (2010) sought to gain clarity regarding the interplay between attachment, CDSE, social self-efficacy and broader life-satisfaction. Utilizing the SCCT model, Wright and Perrone (2010) cast attachment styles in the role of learning experiences and postulated that early sources of facilitative social self-efficacy (i.e., positive, stable relationships with parental figures) would serve as a foundation later in life for self-efficacy in other domains (i.e., career development). Wright and Perrone (2010) gathered data from 374 college undergraduates, using two measures of attachment, two measures of social self-efficacy, one measure of career decision self-efficacy, and one measure of life satisfaction. To measure attachment, Wright and Perrone (2010) employed two measures of adult attachment, one focused on general attachment style and the other focused specifically on intimate relationships. Results indicated that participants with more stable/secure attachment styles were more likely to experience higher career decision self-efficacy and life-satisfaction. Wright & Perrone (2010) postulated that the aforementioned results were an indication that early learning experiences in relationships with caregivers (i.e., attachment relationships) serves as a foundation for self-confidence later in life, including the career decision process.

While demonstrative of the influence of attachment on career development, the previous research regarding the influence of attachment style on career decision factors lacks specific measures of childhood maltreatment (Blustein et al., 1991; Hazan & Shaver, 1990; Lee & Kim,
Family dysfunction was measured in one study (i.e., Ryan et al., 1996); however, a specific measure of child abuse and neglect was not utilized. Including measures of childhood maltreatment along with measures of attachment style may help to engender a more comprehensive understanding of the complex relationship between childhood maltreatment and career development. In addition, exploring adult attachment with a career or educational mentor, as opposed to romantic partners or parental figures, may provide a more accurate and direct depiction of how early learning histories with parental figures affect social learning (i.e., role modeling) aspects of career development for college students.

**Trauma Symptoms**

While the impact of specific trauma-related symptoms on career decision factors has been minimally explored, the findings are suggestive of an intriguing trend. Currently, there are two articles that specifically address the impact of trauma-related symptoms on career decisions (Coursol et al., 2001; Strauser et al., 2006). While the sources of the trauma-related symptoms are not limited to interpersonal trauma in either study, the results of both studies indicate that the presence of trauma-related symptoms impact career development (Coursol et al., 2001; Strauser et al., 2006).

Coursol et al. (2001) explored the impact of trauma symptoms on career maturity, comparing a sample of 48 trauma survivors to 48 non-traumatized individuals, all of whom were adult clients (ages 18-46) of a social service agency seeking vocational assistance. Coursol et al. (2001) measured career maturity with the Career Maturity Inventory (CMI; Crites, 1978), which includes subscales of Career Attitude and Career Competence. The Career Attitude scale is comprised of true-false questions that measure decision-making decisiveness, compromise,
independence, orientation, and involvement. The Career Competence scale is comprised of multiple-choice questions that assess general knowledge regarding occupations, goals, solving problems, planning and self-reflection. Despite having fewer participants than what was deemed necessary by the power analysis, Coursol et al. (2001) compared trauma survivors to non-traumatized individuals utilizing a MANOVA. Initial results from these analyses indicated that two of the CMI Attitude subscales (Involvement and Independence) approached significance, but a statistically significant difference was not established between trauma survivors and non-traumatized individuals. After further evaluation of Coursol et al. (2001) results, Strauser et al. (2006) indicated that there were “meaningful and practical” differences (effect sizes) between trauma survivors and non-traumatized individuals in terms of career maturity. Strauser et al. (2006) maintained that the original work by Coursol et al. (2001) was lacking in statistical power. In addition, Coursol et al. (2001) neglected to include a measure of specific trauma symptoms or an inventory of traumatizing events. Further, it is notable that the entire sample for the Coursol et al. (2001) study was collected from individuals seeking vocational assistance, which may have obscured some of the differences on the career development measures between survivors of trauma and non-traumatized individuals.

In a direct attempt to account for the gaps left by Coursol et al., (2001), Strauser et al. (2006) explored the impact of specific trauma symptoms on career development by collecting a more robust sample with adequate statistical power. Strauser et al. (2006) sampled 131 college students, who were primarily (98%) between the ages of 18-22. Strauser et al. (2006) utilized one inventory of trauma symptoms, the Los Angeles Symptom Checklist (LASC; King, King, Leskin & Foy, 1995), and three career inventories, including the Career Thoughts Inventory (CTI; Sampson, Peterson, Lenz, Reardon, & Saunders, 1996), My Vocational Situation (MVS; Holland
et al., 1980), and the Developmental Work Personality Scale (DWPS; Strauser & Keim, 2002). The LASC includes 43 items that reflect the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; *DSM-IV-TR*; American Psychiatric Association, 2000) criteria for trauma-related conditions, namely PTSD. The CTI is a 48-item measure of thoughts related to career exploration and includes 3 subscales that measure confusion, anxiety, and conflict related to career decisions. The MVS is a measure of vocational identity that involves 18 true/false items. The DWPS was utilized to measure participants’ development of appropriate and effective work-place behaviors, using a 26 Likert-type response items and one open-ended indicator of current grade level. Strauser et al. (2006) found that participants who reported the most severe trauma symptoms also reported higher proportions of dysfunctional career thoughts. While these results are intriguing, Strauser et al. (2006) did not use a measure to identify the specific sources of trauma, details that could further elucidate the relationship between trauma and career-development concerns.

*Adult IPV*

The literature regarding adult survivors of IPV is relevant to the current study because the authors have addressed potential issues that may relate to victims of interpersonal trauma across the lifespan, such as CDSE (Albaugh & Nauta, 2005; Brown et al., 2000). Further, the theoretical foundation for the conceptualization of trauma survivors’ career decisions in the context of the SCCT model has been derived from the adult IPV literature (Albaugh & Nauta, 2005; Brown et al., 2000; Chronister & McWhirter, 2003; Chronister, Wettersten, & Brown, 2004). Given the high rates of adult IPV for adult survivors of childhood maltreatment, the models and interventions applied to adult IPV survivors contain important implications for the current study.
Using the SCCT model, Brown et al. (2000) examined career barriers and CDSE for adult female survivors of IPV. With a sample of 53 shelter-seeking women currently housed at domestic violence shelters, Brown et al. (2000) found that self-esteem was a significant predictor of CDSE. In addition, Brown et al. (2000) reported that self-esteem and career barriers were significantly predicted by locus of control. More specifically, women endorsing an external locus of control were more likely to report low self-esteem and greater perceived barriers to career pursuit. Further, minority women reported greater barriers to pursuit of their desired occupation than non-minority women (Brown et al., 2000). Given this finding, Brown et al. (2000) surmised that the impact of interpersonal violence is difficult to separate from the impact of social inequities of the broader culture. Brown et al. (2000) recommended improving the career-development resources available to women in domestic violence shelters and focusing on self-esteem during career counseling.

Albaugh and Nauta (2005) also used the SCCT model to explore the role of CDSE and career-related barriers in a sample of college women affected by IPV. Albaugh and Nauta (2005) found that women who endorsed being victims of sexual coercion in their intimate relationships had lower CDSE. Alternatively, women who reported engaging in more positive conflict-negotiation techniques in their romantic relationships reported higher levels of CDSE. Further, Albaugh and Nauta (2005) found that symptoms of depression and being the victim of sexual coercion was associated with lower CDSE. In terms of barriers to career development, Albaugh and Nauta (2005) found that women affected by IPV primarily reported barriers associated with health-related concerns. These findings lead to Albaugh and Nauta’s (2005) conclusions that college-aged women’s experiences of IPV, particularly involving sexual coercion, is an important factor to consider during career counseling.
Following their previous theory-based work regarding the application of the SCCT to the career trajectories of women affected by IPV (Chronister & McWhirter, 2003; Chronister, Wettersten, & Brown, 2004), Chronister and McWhirter (2004) launched an empirical investigation to explore the career-related supports and barriers of women affected by IPV. Specifically, Chronister and McWhirter (2004) were interested in unique differences due to ethnicity in barriers and supports. Using a sample of 42 women enrolled in services with a domestic violence agency, Chronister and McWhirter (2004) utilized measures of career barriers and supports, outcomes, and self-efficacy, as well as one measure of IPV. The authors reported that the ethnic differences were evident when also considering differences in abuse severity (Chronister & McWhirter, 2004). That is, Caucasian women who endorsed more abusive experiences also reported higher expectations of career barriers while minority women endorsed lower expectations of career barriers (Chronister & McWhirter, 2004). In addition, Caucasian women endorsed greater expectations of future supports, which minority women reported lower expectations of future supports. Counter to the SCCT model, supports were not found to result in an increase in self-efficacy for Caucasian women. However, this trend was reversed for minority women. The authors suggested that the difference between ethnic groups may have been due to differences in experiences of oppression within the broader cultural context (Chronister & McWhirter, 2004).

Chronister and McWhirter (2006) designed a career development program using the SCCT for women affected by IPV. The authors employed clinical and counseling doctoral psychology students as administrators of the 5 career intervention sessions, which involved career exploration, resource utilization, and awareness of career-related skills (Chronister & McWhirter, 2006). Participants, included 157 women who reported a previous history of IPV,
were divided into 3 groups: 1) the standard career intervention as described above, 2) the standard career intervention with an additional focus on the impact of IPV on career issues, and 3) a wait-list control group. The results demonstrated that women who participated in both interventions reported an increase in career-search self-efficacy, but not in career outcome expectations. Chronister and McWhirter (2006) attributed these results to the participants’ fears or expectations of career interference from their current or previous partners. Further, none of the participants reported an increase in their career-related supports (i.e., social support), perhaps indicating a need for ongoing support for women affected by IPV through domestic violence agencies or specific career advocacy programs (Chronister & McWhirter, 2006).

**Childhood Maltreatment**

Much of the literature that addresses career development and childhood maltreatment is derived from applied resources and qualitative studies (Berger, 1998; Lew, 1988; Liem et al., 1992; Murphy, 1996), retrospective correlational research (Hyman, 2000; Lee & Tolman, 2006), and unpublished dissertations (Hellmich, 1995; Quinn, 1998; and Zvirblis, 2000). Much of the published literature regarding the intersection of childhood maltreatment and vocational factors is largely conceptual and the few empirical studies that do exist are riddled with operational inconsistencies. Thus, the development and evaluation of vocational interventions for survivors of childhood maltreatment remains out of reach to practitioners providing treatment and intervention in the community and in college counseling centers. In an effort to glean wisdom and direction from the aforementioned literature, a brief review of the themes, results and limitations are included.

The existing literature includes observations drawn from clinical practice, including vocational resources for adult survivors of childhood maltreatment (e.g., Lew, 1988; Murphy,
Despite the limitations of naturalistic observation, these sources offer potentially viable insights regarding the impact of childhood abuse on vocational development. Based on observations in an applied setting, Lew (1988) noted that adult survivors of childhood abuse have a tendency to “hyperfocus” on work tasks and attend to the needs of others, often to the detriment of their own self-care. Murphy (1996), a vocational rehabilitation counselor, suggested that victims of childhood maltreatment have an increased likelihood of vocational disruption, largely due to the impact of symptoms associated with PTSD. Murphy (1996) developed a workbook illustrating the potential effects of PTSD symptoms within the context of vocational and academic situations. While limited in scope, the clinical observations of Lew (1988) and Murphy (1996) provide some insight into the potential impact of interpersonal trauma on career development and performance that require further exploration with qualitative research and empirical research methods.

Due to the paucity of research regarding the intersection of childhood abuse and neglect and career development, qualitative research can be utilized to aid in the development of theories and identification of themes that help researchers to understand how adult career development may be affected by child abuse and neglect (Blustein, Kenna, Murphy, DeVoy & DeWine, 2005). Proponents of qualitative research suggest that smaller sample sizes allow for greater depth and richness of information, from which meaning can be derived without losing the unique voices of the participants (Dworkin, 2012; O'Shaughnessy & Krogman, 2012; Stead et al., 2012). Three qualitative studies involving survivors of childhood sexual abuse survivors provide insights regarding the effects of childhood maltreatment on career decision factors (Berger, 1998; Liem et al., 1992; Quinn, 1998).
Using two groups of ten participants each, Liem et al. (1992) explored the role of psychological needs as expressed through career aspirations for non-abused women and survivors of CSA. Based on qualitative data, Liem et al. (1992) suggested that survivors of CSA exhibit an increased need for power in adulthood to a degree that has the potential to influence career decisions. Liem et al. (1992) interviewed both groups of participants about their career-related activities and roles, discovering that survivors of CSA reported higher levels of feelings of powerlessness as well as power-seeking behaviors and roles in their current occupations. Further, through a projective story-telling technique, Liem et al. (1992) observed that survivors of CSA were more likely to include themes related to trauma, powerlessness, shame, fear of being judged, and betrayal.

Quinn (1998) explored the intersection of abuse history and vocational outcome by comparing five female incest survivors. Quinn (1998) contended that, in light of evidence of the cumulative detrimental effects to psychosocial functioning for survivors of childhood abuse, vocational impairments would also be evident in early adulthood. Quinn (1998) suggested that these impairments may exist within broader vocational domains, including job conditions (e.g., adaptation, change, satisfaction), success (e.g., promotion, title, salary), and fit (e.g., inappropriate choices, general indecision). Quinn (1998) surmised that survivors of abuse do not comprise a homogenous group and that qualitative research was necessary to allow for greater observation of intra-individual differences and contextual contributions to vocational outcomes. By allowing the participants themselves to describe the relationship between abuse and vocation, Quinn (1998) provided a view of the complexity of this relationship. Observations of commonalities among the participants included low self-esteem, negative self-concept, playing the role of the caretaker, acknowledgement of the need for vocational or educational training, not
internalizing workplace success, lower socioeconomic status and lower social support related to fewer educational and occupational opportunities, and positive coping resources in spirituality (Quinn, 1998). Quinn (1998) asserted that the early experiences of abuse contribute to disruption in the development of ego-identity and positive self-esteem. Quinn (1998) suggested that future researchers should be especially mindful of the complexity of the relationship between childhood abuse and vocational difficulties, indicating that there is a reciprocal relationship between the individual’s inner and outer world that shapes and influences their vocational paths, suggesting a multidimensional, multifactorial approach to the intersection of abuse survival and vocational development.

Based on qualitative research, Berger (1998) outlined a theoretical link between childhood abuse and neglect and vocational disruption. Berger utilized a sentence-completion task involving nine questions addressing perceptions of self/identity, interests, skills, career aspirations (past and present), disinterests, values, and passions. Berger (1998) noted differences regarding responses to questions about self, identity, interests, skills, career aspirations, values and passions between women with a history of CSA and those without. More specifically, women exposed to CSA were purported to perceive themselves as an imposter, think of themselves as having a black core, and experience anxiety over differentiation and feeling safe. Alternatively, Berger (1998) found that non-abused women were more likely to report having a credible sense of self, acknowledge difficulties and strengths, experience anxiety over individuation, and express worry about continued progress/success. With regard to views about life, abused women were characterized by viewing life as loss, seeing limited options, lacking in life-dreams, and struggling to establish a psychological space while non-abused women were characterized by viewing life as having specific losses/disappointments, seeing many options,
having life-dreams, and struggling to establish a life-course. Common trends identified in Berger’s (1998) qualitative work include disruption in the formation of general self-concept, disturbance in vocational self-concept, identification as victimized as opposed to identifying with other aspects of self (e.g., race, ethnicity, personality, sexuality), disruption of world-view, and impediments to learning and execution of cognitive abilities. Berger related the identification with the “victimized self” to impaired self-preservation, difficulty with assertiveness and setting boundaries, vulnerability to dangerous situations, re-victimization, self-blame, diminished hope and planning for the future, and diminished self-care. In addition, Berger (1998) found that women with a history of abuse were more likely to show higher rates of instability in their vocational paths than women without abuse histories. Interestingly, though, Berger (1998) noted that the sample of women with abuse histories included a higher percentage of both high indecisiveness and high decisiveness, suggesting the presence of a polarized split regarding vocational patterns. This split indicates that the experience of trauma in isolation does not dictate a singular vocational outcome. Further, this dichotomy may offer some insight regarding the difficulty to demonstrate quantitative differences in vocational issues when based on trauma history alone.

In the context of vocational functioning, Berger (1998) depicted six common work trends for female survivors of child abuse and non-abused women alike, including unemployed abled, unemployed disabled, dabblers (low risk-taking, low tolerance for stress, job-hopping), sprinters (high risk-taking, higher level of education or SES, high tolerance for stress), drones (high decisiveness, low risk-taking, foreclosed), balancers (moderate risk-taking, higher intelligence, positive coping, high decisiveness), and drivers (high decisiveness, high risk-taking, apparent extremely high tolerance for stress despite common substance abuse). The highest percentages of
non-abused women were categorized as drones and balancers while the highest percentages of survivors were categorized as unemployed disabled, dabblers, and drivers. These findings indicate that there are higher rates of instability in the vocational paths of abuse survivors compared to non-abused women. Berger (1998) depicted behaviors of both non-abused and survivors who were successful and unsuccessful in careers. Success was determined to relate to seeing problems as short-lived, proactive efforts to change, not procrastinating, flexibility, sense of power over life, rational reasons for making career changes, self-awareness of skills, interests, and abilities, and ability to depersonalize criticism, setbacks, and mistakes. Unsuccessful career behaviors included viewing problems as insurmountable, tendency toward less effective problem-solving, procrastination, inflexible, less access to power, excuses for not making changes, lack of self-awareness about skills, abilities, values, history of job-hopping, and personalizing setbacks, mistakes, and criticism. Providing a comprehensive, qualitative view of successful and unsuccessful career behaviors based on both abuse survivors and non-abused women was an important foundation for future research aimed at developing interventions for abuse survivors. That is, there are behaviors that are helpful (or hurtful) in the context of vocational development regardless of the trials of one’s youth. Another important distinction that Berger made was between childhood abuse survivors who are under-achievers and childhood abuse survivors who are over-achievers, lending support to the potential role of protective/resiliency factors. Overall, Berger’s (1998) work, like other qualitative compilations discussed above, provided a necessary link between observations of practitioners who work with survivors of abuse and the world of empirical support. Although the qualitative studies did not include statistical data, the authors’ efforts set the stage for future comprehensive empirical research regarding the intersection of vocation and abuse history.
In a study of 203 female college students, Hellmich (1995) sought to identify the potential effects of childhood sexual abuse (CSA) on the vocational development of college students. Hellmich (1995) utilized a self-report measure of childhood experiences created by the author, a measure of career identity within specific career domains, a measure of vocational decision-making abilities, adapted from a broader measure of vocational interest, and a measure of the level of career decision commitment, measuring decisional foreclosure and strength of commitment to a particular choice. Unfortunately, the validity and reliability of many of the measures utilized by Hellmich (1995) were unavailable. Hellmich (1995) reported that about 30% of the sample endorsed a positive history for CSA and an additional 15% of the original sample endorsed a positive history for childhood emotional and/or physical abuse without CSA. Hellmich (1995) reported trends in the data suggesting that individuals with histories of CSA and/or physical and emotional abuse were more likely to foreclose on career-decision factors and engage in less adaptive career decisions. However, abuse history was not found to predict specific ego-identity status (i.e., Diffused, Foreclosed, Achieved and Moratorium) between participants with no abuse history and CSA survivors or survivors of physical and emotional abuse only. Hellmich (1995) also found a trend suggesting that a history of multiple types of abuse is related to a weaker vocational identity. Hellmich (1995) divided participants into three groups: sexual assault, physical/emotional abuse and no abuse.

Zvirblis (2000) explored the relationship between type and incidence of abuse, trauma symptomatology, and career indecision, but failed to find differences in career indecision between participants who had experienced trauma and those who did not. Zvirblis (2000) utilized self-report inventories to explore the relationships between type or incidence of abuse, trauma symptomatology, and career indecision. Although Zvirblis (2000) found significant differences
between abused and non-abused participants regarding trauma symptoms, differences regarding career indecision were not found. Zvirblis (2000) addressed the heterogeneity in trauma survivor experiences by comparing abuse survivors based on the duration and type of maltreatment endured, particularly childhood sexual abuse, childhood physical abuse, and childhood emotional abuse.

Despite efforts to measure the factors that account for variability in vocational outcomes for survivors of interpersonal trauma, the current literature has produced limited and, at times, conflicted results. The scant empirical studies at the intersection of childhood maltreatment and career decision are testaments to the difficulty of elucidating the relationship between childhood maltreatment and vocational issues (Berger, 1998; Hellmich, 1995; Quinn, 1998; Zvirblis, 2000). Previous studies have used an array of techniques and measures to assess vocational development, including career decidedness, vocational identity, and career decision self-efficacy (Brown et al., 2000; Berger, 1998; Hellmich, 1995; Quinn, 1998; Zvirblis, 2000).

The results of these aforementioned studies are inconsistent with each other, particularly regarding the impact of trauma on career decision factors (Berger, 1998; Hellmich, 1995; Quinn, 1998; Zvirblis, 2000). It is possible that some measures of vocational indecision were not able to detect potential underlying factors that contribute to career indecision for survivors of childhood abuse and neglect. Another complicating factor that warrants further attention is the assumption that all survivors of childhood interpersonal abuse and neglect share similar barriers (e.g., mental health disorders, identity development disruption, poor role models) and resources (e.g., coping skills, alternative attachment figures). While the heterogeneity of trauma survivors’ experiences, resources and reactions have been widely noted (Berger, 1998; Gianakos, 1999; Quinn, 1998; Zvirblis, 2000), previous authors have failed to adequately address this observation through the
lens of empirical research. Thus, a gap in the literature that could potentially explain differing career outcomes for survivors of childhood maltreatment remains largely unexamined. Unaccounted for heterogeneity between participants, including symptom severity, type(s) and severity of abuse, and coping resources, may be at least partially responsible for the continued obfuscation of the relationship between trauma and vocational disruption.

*Application of the SCCT Model*

While observations of the relationship between interpersonal trauma and career difficulties have been noted (Murphy, 1996), empirical research has been sparse and results conflicting (Berger, 1998; Coursol et al., 2001; Gianakos, 1999; Quinn, 1998; Strauser et al., 2006; Zvirblis, 2000). Despite the literature indicating that survivors of childhood maltreatment are vulnerable to insecure attachment, low self-esteem, anxiety, depression, and PTSD symptoms (e.g., Briere & Elliot, 2003; Briere & Scott, 2006; Riggs & Kaminski, 2010), factors previously identified as impediments to vocational development (Bandura et al., 2001; Blustein et al., 1991; Coursol et al., 2001; Eun et al., 2013; Hazan & Shaver, 1990; Lease & Dahlbeck, 2009; Lee & Kim, 2015; O’Brien et al., 2000; Ryan et al., 1996; Strauser et al., 2006; Tokar et al., 2003; van Ecke, 2007; Wolfe & Betz, 2004; Wright & Perrone, 2010), the relationship between exposure to childhood maltreatment and vocational development has not been directly established. The conflicting findings that some trauma survivors experience poor vocational outcomes while others do not (e.g., Brown et al., 2000; Coursol et al., 2001; Hellmich, 1995; Hyman, 2000; Lee & Tolman, 2006; Strauser et al., 2006), suggests the likely role of mediating and/or moderating variables that mitigate the relationship between factors associated with a childhood maltreatment and career decision.
In light of conflicting results in the existing literature, the current study was focused on key variables in the SCCT model that may explain how childhood maltreatment affects career decisions and why some trauma survivors struggle with vocational issues while others do not. The results of previous research implicate indirect pathways of influence between SCCT constructs that affect the career decision process in varying ways (e.g., Bandura et al., 2001; Gati & Nimrod, 2014; Lee & Kim, 2015; Lent & Brown, 2006; Lent et al., 1994, 2000; Saka & Gati, 2007; Strauser et al., 2006; Swanson & Woitke, 1997). Further elucidation of the relationship between interpersonal trauma and CDSE could allow for more accurate and effective vocational interventions with survivors of interpersonal trauma. Identification of mediating and/or moderating variables could also help identify factors that potentially account for or buffer the long-term detrimental effects of trauma on vocational functioning.

In response to the inconsistencies in the previous literature, the current study was designed for the exploration of potential sources of mediation and moderation between SCCT variables associated with childhood maltreatment, including personal factors, background factors, learning experiences, and self-efficacy. While there are likely other possible mediating and/or moderating factors that may influence the relationship between childhood maltreatment and career decision factors, anxious and avoidant attachment with a career-related mentor were selected as an extension of the previous literature to be cast into the role of learning experiences as depicted in the SCCT model. The variables explored in the current study were 1) background factors: childhood maltreatment, 2) personal factors: symptoms of trauma, depression, and anxiety, 3) learning experiences: anxious and avoidant attachment with a career-related mentor, and 4) CDSE. Potential sources of mediation and/ or moderation explored by the current study are specified in the SCCT model where relationships between variables are illustrated, primarily
between background factors and learning experiences, between background factors and CDSE, and between personal factors and CDSE.

**Background Factors**

There are several specific ways that childhood maltreatment could interfere with the career decision process (Chronister & McWhirter, 2003; Morris et al., 2009; Strauser et al., 2006; Swanson & Woitke, 1997). Largely neglected in the previous literature, history of potentially traumatizing interpersonal events that occur in childhood maltreatment is an important contextual barrier that could affect the career decision process. Dysfunctional family dynamics in childhood, potentially expressed through a parent-child bond characterized by low care and high control (Parker et al., 1997), represents another facet of childhood maltreatment that could affect career decision processes. Together, the aforementioned variables represent background factors indicative of childhood maltreatment that may predict CDSE directly or through relationships with other variables, such as personal factors (e.g., cognitive and emotional deficits as a result of trauma-related symptoms) and learning experiences (e.g., engagement in fewer skill-development activities, insecure attachment in mentor relationships). Parental styles indicative of childhood maltreatment could affect CDSE by limiting self-exploration and opportunities to obtain career-related information from a caregiver or alternative role-model (Bandura et al., 2001; Blustein et al., 1991; Lee & Kim, 2015; Ryan et al., 1996; Wolfe & Betz, 2004). The early relationships with caregivers influence later adult relationships, which could affect the ability to utilize alternative relationships as meaningful sources of information about self and the world (Bandura et al., 2001; Lee & Kim, 2015; Workman, 2015). Inadequate (i.e., neglect) or counterproductive (i.e., emotional abuse) parental involvement in learning opportunities that may otherwise aid in the formulation of career identity and direction (i.e.,
education, extracurricular activities, self-efficacy for skills and abilities) represents another hypothetical pathway to suboptimal career development for survivors of childhood maltreatment (Bandura et al., 2001; Lee & Kim, 2015; Workman, 2015). Individuals reporting childhood maltreatment may be more prone to trauma-related symptoms that interfere with career decisions, perhaps limiting exposure to alternative career role-models or access to internal data necessary for career decisions. The family-environment has been identified as an important source of information and support for career decision processes for adolescents and emerging adults (Bandura et al., 2001; Blustein et al., 1991; Lee & Kim, 2015; Ryan et al., 1996; Wolfe & Betz, 2004; Workman, 2015). In families where childhood maltreatment is present, individuals may not be exposed to the necessary support or sources of career-related information to promote a successful career decision process.

**Childhood Maltreatment**

There are two major concerns involving the measurement of childhood maltreatment. Primarily, much of the previous literature regarding the intersection of trauma and career development is focused exclusively on adult survivors of IPV and has largely neglected the impact of childhood maltreatment (e.g., Brown et al., 2000; Chronister & McWhirter, 2004, 2006). Additionally, there is a noted difficulty throughout the existing literature regarding the accurate measurement of childhood maltreatment, potentially due to participants’ inability to disclose abuse, lack of consistent definitions of abuse, or blocking out of relevant memories or emotions associated with traumatic experiences (DiLillo et al., 2006a; DiLillo et al., 2006b; Finkelhor, Hamby, Ormrod, & Turner, 2005; Goldsmith & Freyd, 2005). While few studies have assessed childhood trauma history directly (e.g., Hellmich, 19965; Zvirblis, 2000), the research identifying the negative impact of dysfunctional family dynamics and problematic parental
attachment on career decisions could be indicative of underlying child abuse (Blustein et al., 1991; Ryan et al., 1996; Wolfe & Betz, 2004). Childhood emotional abuse was included in the current study because emotional abuse is commonly present with other forms of maltreatment and trauma survivors often report the effects of CEA to be more pervasive than other forms of child maltreatment. Further, CEA has been largely neglected in the previous literature. Thus, the current study was designed to fill an important gap in the current literature regarding the measurement of childhood maltreatment of all forms, including physical abuse, emotional abuse, sexual abuse, and neglect.

*Parental Style*

Dysfunctional family dynamics, including parental styles consisting of elevated emotional distance or control, are common among families where abuse and neglect are present (Briere & Scott, 2006; Riggs & Kaminski, 2010). Survivors of childhood maltreatment are more likely to report physically and psychologically aggressive parents (Milletich et al., 2010; Riggs & Kaminski, 2010). Dysfunctional family dynamics have been related to the lack of parental career-related role models (Ferry et al., 2000; Keller & Whiston, 2008; Nauta & Kokaly, 2001; Stringer & Kerpelman, 2010; Wolfe & Betz, 2004). Further, insecure parental attachment and family dysfunction have been related to deficits in CDSE (Ferry et al., 2000; Lee & Kim, 2015; Nauta & Kokaly, 2001; Ryan et al., 1996; Stringer & Kerpelman, 2010; Wolf & Betz, 2004; Wright & Perrone, 2010) and career progress (Blustein et al., 1991). Researchers have also found that individuals who describe their mothers as cold and controlling are likely to express extrinsic career-related goals, while individuals who describe their mothers as warm and nurturing are likely to express intrinsic goals (Williams, Cox, Hedberg, & Deci, 2000). Based on the literature, it seems likely that parental styles have a pervasive influence career decisions.
Personal Factors

Personal factors, including, but not limited to, personality attributes, psychological conditions, identity development, motivation, and coping style are known to be affected by background contextual factors common among survivors of childhood maltreatment, including dysfunctional family dynamics, verbal denigration, emotional neglect, and lack of positive reinforcement (Briere & Elliot, 2003; Briere & Scott, 2006; Jobson & O’Kearney, 2008; McMullin et al., 2007). If knowledge of the self is unstable, limited, or otherwise compromised by interfering emotional or cognitive states, as is common among some trauma survivors (Briere & Scott, 2006; Frewen et al., 2011; Frewen et al., 2008; Freyd & DePrince, 2001), career decision processes that hinge on introspection (e.g., identification of interests, abilities and preferences) cannot accurately be accomplished (Coursol et al., 2001; Chronister & McWhirter, 2003; Eun et al., 2013; Hellmich, 1995; Pulkkinen, Ohranen & Tolvanen, 1999; Strauser et al., 2006; Swanson & Woitke, 1997; Wolfe & Betz, 2004; Wang et al., 2006). Indecisiveness due to cognitive and/or emotional factors has the potential to affect the career decision process and has been identified as a more pervasive type of indecision than indecision resulting from lack of information (Wolfe & Betz, 2004). In fact, Wang et al. (2006) found that college students reporting higher rates of negative emotions demonstrated lower levels of CDSE and subsequently higher career indecision. Eun et al. (2013) reported higher major and career selection satisfaction among individuals with more self-regulated decision-making skills. The most direct support for the relationship between trauma symptoms and career decision difficulties has previously been established by Strauser et al. (2006), where trauma symptoms predicted career indecision. In this light, trauma-related symptoms (i.e, those associated with
PTSD, depression, and anxiety) are explored as measures of personal factors that potentially disrupt CDSE for survivors of childhood maltreatment.

Trauma-Related Symptoms

The vast majority of research regarding interpersonal trauma has been focused on the largely detrimental impact of traumatic events on various domains of functioning and exploring treatment modalities for trauma-related symptoms and conditions (e.g., Briere et al., 1995; Briere & Scott, 2006; Callahan et al., 2003; Clemmons et al., 2007; Foa et al., 2005; Foa & Rauch, 2004; Gross & Keller, 1992; Hellmich, 1995; Lee & Tolman, 2006; Perry, 2008; Quinn, 1998; Schumacher et al., 2010; Silvern et al., 1995; Zvirblis, 2000). Previous researchers who explored the intersection of trauma and vocational factors, including general outcomes, interventions and, to a lesser degree, career decisions, focused on survivors of interpersonal trauma, but largely neglected to consider individual differences regarding the impact of the traumatic experiences (Albaugh & Nauta, 2005; Brown et al., 2000; Chronister & McWhirter, 2004, 2006; Gianakos, 1999; Hellmich, 1995; Lew, 1988; Quinn, 1998; Zvirblis, 2000). Some of the previous research addressed severity of the impact of trauma by assessing symptoms related to PTSD, depression and anxiety (Albaugh & Nauta, 2005; Coursol et al., 2001; Strauser et al., 2006), but most did not (Brown et al., 2000; Chronister & McWhirter, 2004, 2006; Gianakos, 1999; Lee & Tolman, 2006). Greater trauma-related symptom severity has been related to increased levels of career indecision (Strauser et al., 2006) and lower career maturity (Coursol et al., 2001). The mechanisms thought to be the source of this interference are the emotional and cognitive deficits noted in the trauma literature (Bluhm, 2009; Frewen et al., 2011; Frewen et al., 2008; Freyd & DePrince, 2001; Hunt & Evans, 2003), two processes that are directly linked to effective
decision-making (Gupta et al., 2011; Pessoa, 2010) and career decisions (Emmerling & Cherniss, 2003; Puffer, 2011).

*Learning Experiences*

Within the SCCT model, learning experiences are hypothesized to affect the relationship between personal factors and CDSE, as well as between background factors and CDSE (Lent & Brown, 2006; Lent et al., 1994, 2000). It is important to note that learning experiences could negatively or positively impact career decisions. That is, trauma-related learning experiences could include verbal denigration during which the individual is taught that they are worthless, incompetent, or otherwise damaged (Briere & Scott, 2006; Chronister & McWhirter, 2003; Morris et al., 2009). However, if an individual is afforded adequate learning opportunities providing self-knowledge of an overwhelmingly positive valence, say by a teacher or other supportive role-model, the early detrimental learning experiences may be overcome and may not have a prevailing effect on future CDSE (Brown et al., 2000; Chronister & McWhirter, 2003; Lent & Brown, 2006; Lent et al., 1994, 2000).

While research on the detrimental impact of trauma can provide insights regarding contextual factors that potentially act as barriers to career decisions, less is known about contextual factors that may serve as resources to facilitate career decisions. Strengths and resiliencies could affect vocational outcomes in a positive way, just as deficits could affect vocational outcomes negatively (Thompson et al., 2011). In fact, Berger (1998) found that some participants with childhood maltreatment found a great deal of satisfaction and pride from work success. Berger (1998) depicted behaviors of women who perceived themselves as successful or unsuccessful in their careers. Another study demonstrated that adult survivors of childhood maltreatment may actually sublimate their distress into a sort of hyper-productivity in the
workplace (Lew, 1988). Focusing on barriers for trauma survivors, as opposed to resources, is a common trend (Chronister & McWhirter, 2003; Coursol et al., 2001; Morris et al., 2009; Strauser et al., 2006; Swanson & Woitke, 1997). However, a comprehensive view of the impact of interpersonal trauma on career decisions is not possible without also considering how resources (e.g., strengths, resilience, coping, alternative role models) may serve to aid the career decision process. It is possible that the lack of consideration of resources and resilience has contributed to the conflicting results from previous research regarding the impact of trauma on career development. That is, previous researchers did not account for trauma survivors who were at least partially protected from the detrimental impact of interpersonal trauma when considering vocational outcomes and the career decision process (e.g., Albaugh & Nauta, 2005; Brown et al., 2000; Coursol et al., 2001; Hellmich, 1995).

Recent researchers (Lease & Dahlbeck, 2009; Wright & Perrone, 2010) have cast attachment styles in the role of learning experiences because they represent enduring templates of thought and behavior utilized in interpersonal relationships and contexts that require exploratory behavior, such as the career decision process (Lee & Kim, 2015; van Ecke, 2007). Broader behavioral patterns (e.g., attachment styles) may influence the impact of childhood maltreatment on the career decision process. For the purpose of the current study, adult attachment styles (i.e., anxious and avoidant) with regard to a career or educational mentor were cast in the role of learning experiences within the SCCT model.

Attachment Style with a Career-Related Mentor

Researchers have identified attachment styles as sources of self-knowledge and competence that affect career decision (e.g., Blustein et al., 1991; Hazan & Shaver, 1990; Lease & Dahlbeck, 2009; Lee & Kim, 2015; O’Brien et al., 2000; Ryan et al., 1996; Tokar et al., 2003;
van Ecke, 2007; Vignoli, 2009; Wolfe & Betz, 2004; Wright & Perrone, 2010), as attachment styles are indicative of specific sets of interpersonal behaviors that are learned from relationships with primary caregivers (e.g., Varra et al., 2008). Consistent with the SCCT model, which indicates learning experiences as a source for CDSE, attachment styles serve as a source of self-efficacy for a host of endeavors, including career decision and other exploratory behaviors throughout the lifespan (Lee & Kim, 2015; Lease & Dahlbeck, 2009; Ryan et al., 1996; Wright & Perrone, 2010). Most of the previous literature regarding the effects of attachment styles on career decision factors has neglected to explore family history for abuse (Blustein et al., 1991; Lease & Dahlbeck, 2009; O’Brien et al., 2000; Tokar et al., 2003; van Ecke, 2007; Wolfe & Betz, 2004; Wright & Perrone, 2010). There is a growing body of evidence, however, that career decision disruption that is rooted in dysfunctional family dynamics can be better predicted when levels of attachment security are taken into account (e.g., Ryan et al., 1996). That is, the previous literature demonstrates consistency with the relationships in the SCCT model, which suggests that learning experiences (i.e., insecure attachment with a career-related mentor) influence the relationships between background factors and personal factors and career decision factors (i.e., CDSE).

Attachment styles (i.e., anxious or avoidant) with a career-related mentor were expected to function as mediators and/or moderators of the relationship between background factors (i.e., childhood maltreatment) and CDSE, as well as between personal factors (i.e., trauma-related symptoms) and CDSE. If attachment styles with a career-related mentor functioned as moderators, attachment styles were expected to enhance the relationship between the predictor (i.e., Personal and background factors) and outcome (i.e., CDSE) variables. That is, where childhood maltreatment or trauma-related symptoms were present, high levels of anxious or
avoidant attachment with a career-related mentor were expected to predict lower CDSE. If attachment styles with a career-related mentor functioned as mediators, an indirect relationship between predictor (i.e., background factors) and outcome (i.e., CDSE) variables would better explain the variance in CDSE than the direct relationship. Additionally, as the SCCT model does not clearly depict mediation or moderation, it was possible for attachment styles to function as both mediators (i.e., how) and moderators (i.e., under what conditions) in the current study. In this light, attachment style with a career-related mentor (i.e., the absence or presence of a secure foundation for career exploration activities) could help to explain how and/or why childhood maltreatment affects CDSE.

*Career Decision Self-Efficacy*

CDSE has been the focus of a considerable amount of research (Bandura et al, 2001; Betz & Schifano, 2000; Coogan & Chen, 2007; Lee & Kim, 2015; Pulkkinen et al., 1999; Stringer & Kerpelman, 2010; Sullivan & Mahalik, 2000; Williams et al., 2000), including intervention and multivariate studies involving survivors of interpersonal trauma (Chronister & McWhirter, 2003, 2004, 2006; Chronister et al., 2004). CDSE is affected by the complex interaction of Background and personal factors as well as learning experiences, including the broader role of gender socialization, culture, family, personality, social support and emotional and cognitive processing (Bandura et al., 2001; Betz & Schifano, 2000; Coogan & Chen, 2007; Lee & Kim, 2015; Pulkkinen et al., 1999; Sullivan & Mahalik, 2000; Williams et al., 2000; Wolfe & Betz, 2004). For example, low self-esteem, which is a likely outcome from interpersonal abuse, has been related to lower levels of CDSE (Brown et al., 2000). Interventions addressing irrational or detrimental thoughts about self and career performance, identifying positive role-models and receiving supportive feedback and encouragement have been related to increases in CDSE (Betz
Researchers have also reported that higher levels of parental support predict higher levels of CDSE (Bandura et al., 2001; Stringer & Kerpelman, 2010). Thus, as is likely for survivors of childhood maltreatment, where positive role-models, verbal encouragement, or parental support have not been a regular presence (Chronister & McWhirter, 2003), lower CDSE is expected. Thus, it seems possible that the mechanisms that influence CDSE include personal factors, learning experiences, and background factors, emphasizing the complexity and reciprocal nature of the career decision process (Bandura et al., 2001; Betz & Schifano, 2000; Stringer & Kerpelman, 2010; Sullivan & Mahalik, 2000).

**Summary and Direction of Current Research**

Interpersonal trauma, including various forms of maltreatment occurring in childhood, is widely known to affect a number of affective and cognitive processes (Bluhm, 2009; Frewen et al., 2010; Hunt & Evans, 2004; Johnson, Benas, & Gibb, 2011), including those involved in the career decision process (Albaugh & Nauta, 2005; Bandura et al., 2001; Brown et al., 2000; Chronister & McWhirter, 2004, 2006; Coursol et al., 2001; Emmerling & Cherniss, 2003; Eun et al., 2013; Gianakos, 1999; Lee & Kim, 2015; Puffer, 2011; Strauser et al., 2006). There are few empirical studies, however, that have been focused exclusively on the impact of childhood maltreatment on career development (Albaugh & Nauta, 2005; Brown et al., 2000; Chronister & McWhirter, 2004; Coursol et al., 2001; Gianakos, 1999; Ryan et al., 1996; Strauser et al., 2006). Moreover, the results of these studies are inconsistent. These inconsistencies may potentially be due to various methodological issues (e.g., small sample sizes, operational definition of variables) and/or failure to account for the complexity of the relationship between interpersonal trauma and career development processes (Albaugh & Nauta, 2005; Brown et al., 2000; Chronister & McWhirter, 2004; Coursol et al., 2001; Gianakos, 1999; Strauser et al., 2006).
Another weakness in the aforementioned literature is the absence of a consistent theory-guided approach to the study of career decision among trauma survivors (Chronister & McWhirter, 2004; Coursol et al., 2001; Gianakos, 1999; Strauser et al., 2006). Therefore, using the framework set forth in the SCCT, the current study was designed to explore the relationship between childhood maltreatment and CDSE.

None of the research with a specific focus on the impact of interpersonal trauma on vocational issues had addressed the role of personal and contextual barriers and resources simultaneously, in a manner consistent with the prevailing SCCT model. In order to more adequately understand the influence of childhood maltreatment on career decision, a theory-guided approach addressing personal and contextual sources of both barriers and resources is necessary. Identification of how trauma-related factors influence the career decision process for survivors of childhood maltreatment could mean enhanced effectiveness of career intervention and assessments for individuals with histories of trauma (Chronister et al., 2004; Lee & Tolman, 2006). Thus, the current study was designed to elucidate potential intervening factors and indirect relationships between childhood maltreatment and CDSE. It was expected that the identification of these relationships would provide further clarity regarding the role of specific barriers and supports with career decision, which would allow for more effective career assessments and interventions for survivors of trauma.

The current study was designed to explore potential mediating and moderating factors in the relationship between childhood maltreatment and CDSE, guided by the framework outlined in the SCCT model. The factors that were explored included background factors (i.e., childhood maltreatment), personal factors (i.e., symptoms of PTSD, anxiety and depression), learning experiences (i.e., anxious and avoidant attachment with a career-related mentor), and Career
Decision Factor (i.e., CDSE). Mediation and moderation were explored where the SCCT model specified relationships between variables, specifically between background factors and learning experiences, between personal factors and CDSE, and between background factors and CDSE. See Figure 1 for the full SCCT model, where constructs shaded with gray were not the focus of the current study.

Hypotheses

I. Background factors and personal factors predict CDSE, evident through significant direct relationships.

II. Personal factors (i.e., trauma-related symptoms) moderate the relationship between background factors (i.e., childhood maltreatment) and learning experiences (i.e., insecure attachment with a career-related mentor).

   a. Trauma-related symptoms moderate the relationship between childhood maltreatment and anxious and avoidant attachment with a career-related mentor. Specifically, where evidence of trauma-related symptoms are present, high levels of childhood maltreatment are expected to predict lower attachment security. Lower levels of trauma-related symptoms are expected to predict higher levels of attachment insecurity. These interactions are expected to predict insecure attachment with a career-related mentor to a greater degree than childhood maltreatment alone.

III. Learning experiences (i.e., insecure attachment with a career-related mentor) moderate the relationship between background factors (i.e., childhood maltreatment) and CDSE.

   a. Insecure attachment with a career-related mentor moderates the relationship between childhood maltreatment and CDSE. Specifically, where evidence of childhood maltreatment is present, high levels of attachment insecurity are expected to predict
lower CDSE. Lower levels of attachment insecurity are expected to predict higher levels of CDSE. These interactions are expected to predict CDSE to a greater degree than childhood maltreatment alone.

IV. Learning experiences (i.e., insecure attachment with a career-related mentor) moderate the relationship between personal factors (i.e., trauma-related symptoms) and CDSE.

a. Insecure attachment with a career-related mentor moderates the relationship between trauma-related symptoms and CDSE. Specifically, where trauma-related symptoms are present, lower levels of attachment insecurity are expected to predict higher CDSE to a greater degree than trauma-related symptoms alone. Higher levels of attachment insecurity are expected to predict lower levels of CDSE. These interactions are expected to predict CDSE to a greater degree than trauma-related symptoms alone.

V. Serial mediators personal factors (i.e., trauma-related symptoms) and learning experiences (i.e., insecure attachment with a career-related mentor) mediate the relationship between background factors (i.e., childhood maltreatment) and CDSE.

a. Trauma-related symptoms mediate the relationship between childhood maltreatment and CDSE through anxious and avoidant attachment with a career-related mentor. The indirect pathway is expected to include significant regression coefficients between childhood maltreatment and trauma-related symptoms, as well as between childhood maltreatment and anxious attachment with a career-related mentor. This indirect pathway is expected to, at least partially, account for the variation in the direct relationship of the prediction of anxious attachment with a career-related mentor by childhood maltreatment.
b. Anxious attachment with a career-related mentor mediates the relationship between childhood maltreatment and CDSE, through avoidant attachment with a career-related mentor. The indirect pathway is expected to include significant regression coefficients between trauma-related symptoms and anxious attachment with a career-related mentor, as well as between anxious attachment with a career-related mentor and avoidant attachment with a career-related mentor. This indirect pathway is expected to, at least partially, account for the variation in the direct relationship of the prediction of CDSE by background factors (i.e., childhood maltreatment), thereby reducing the regression coefficient of the direct relationship.

c. Avoidant attachment with a career-related mentor mediates the relationship between childhood maltreatment and CDSE, along with trauma-related symptoms and anxious attachment with a career-related mentor. The indirect pathway is expected to include significant regression coefficients between anxious attachment with a career-related mentor, as well as between avoidant attachment with a career-related mentor and CDSE. This indirect pathway is expected to, at least partially, account for the variation in the direct relationship of the prediction of CDSE, thereby reducing the regression coefficient of the direct relationship.
CHAPTER 2
METHODS

Participants

Participants were 227 undergraduate students between the ages of 18-25. A diverse sample of students enrolled in undergraduate courses at a large public university in the Southwest was sought, with age and undergraduate status as the only selection criteria. Given the need for a sample with a wide variation in adverse interpersonal experiences in childhood, additional restrictions on the sample were not applied. Participants were compensated for their participation in two ways: 1) fulfillment of research participation criteria for introductory psychology courses and/or 2) the opportunity to enter a drawing for a $50 gift certificate to the vendor of their choice.

Procedures

The research design for the current study was cross-sectional. Utilizing a convenience sampling method, participants were recruited to participate in the study via posters placed in academic buildings (see Appendix A) and through the university SONA System website, which is used to notify potential participants of current research opportunities. Participants were directed to Qualtrics.com to complete the informed consent form (see Appendix B) where they were given the opportunity to provide consent and continue with the study or to deny consent and terminate participation in the study. After consent was received, participants were asked to complete the demographic questionnaire and then the remainder of the inventories (see Appendix C). Through a debriefing page, participants were provided with information regarding potential aversive emotional reactions to memories or thoughts triggered by participation in the study. Additionally, information for receiving assistance was provided (see Appendix D).
Instruments

Demographic Survey

A brief questionnaire designed by the researcher for the specific purposes of this study was utilized to gather pertinent demographic data. Data requested included gender identity, ethnicity/race, age, sexual orientation, year in school, major, and number of jobs held. In addition, participants were asked if they have ever engaged in career exploration activities, personal therapy or support groups.

PTSD Checklist-Civilian

The PTSD Checklist-Civilian (PCL-C; Weathers, Huska & Keane, 1991) is a self-report measure, consisting of 17 items of symptoms commonly experienced by individuals exposed to interpersonal trauma. The PCL-C items include a 5-point Likert-type scale, ranging from 1-5 (not at all, a little bit, moderately, quite a bit, and extremely), indicating the frequency of the particular symptom during the previous month. The PCL-C is composed of a full-scale score showing adequate internal consistency (α =.92-.96) across several studies (Wilkins, Lang & Norman, 2011). The PCLC demonstrated high internal consistency with the sample utilized for the current study (α =.94).

Depression Anxiety Stress Scale-21

The Depression Anxiety Stress Scale-21 (DASS-21; Lovibond & Lovibond, 1995) includes 21 items that are designed to measure symptoms of depression, anxiety and stress, which correspond to the 3 DASS-21 subscales. Respondents are asked to consider how much each item/ symptom applied them over the past week, using a Likert-type scale from 0 (Did not apply to me at all) to 3 (Applied to me very much or most of the time). The DASS-21 is intended to measure the aversive emotions associated with symptoms of depression, anxiety and stress.
The DASS-21 is intended to serve as a general measure of distress and is not meant for diagnostic purposes. As such, the DASS-21 has utility with clinical and sub-clinical populations alike and is more likely to detect general symptoms of distress which may not be detected with a measure designed for diagnostic purposes (Antony, Bieling, Cox, Enns, & Swinson, 1998). Subscales include 7 items each and have demonstrated adequate internal consistency reported by Lovibond and Lovibond (1995): depression subscale ($\alpha = .94$), anxiety subscale ($\alpha = .87$) and stress subscale ($\alpha = .91$). The total DASS-21 score demonstrated high internal consistency with the sample utilized in the current study ($\alpha = .94$). The DASS-21 subscale scores also indicated adequate internal consistency with the current sample, including Depression ($\alpha = .87$), Anxiety ($\alpha = .85$), and Stress ($\alpha = .83$).

**Measure of Parental Style**

The Measure of Parental Style (MOPS; Parker et al., 1997) includes 15 self-report items, measuring participants’ retrospective perceptions of parenting behaviors for both mothers and fathers. Participants are instructed to respond to items while reflecting on either maternal or paternal behaviors toward them throughout their childhood, until age 16. Item-responses are gauged with a 4-point Likert scale, including *not true at all, slightly true, moderately true, and extremely true*. Subscale scores include three dimensions, Indifference, Abuse and Overcontrol, which are obtained by totaling specific items for each subscale. Subscales do not contain cut-off scores, only total scores that represent the degree that the individual reports experiencing the parenting style. Previous internal consistency for subscale scores reported by Parker et al. (1997) are as follows: Maternal and Paternal Indifference $\alpha = .93$, Maternal Over-control $\alpha = .82$, Paternal Over-control $\alpha = .76$ and Maternal and Paternal Abuse $\alpha = .92$. The Paternal MOPS indicated high internal consistency with the current sample with regard to paternal behaviors ($\alpha = \ldots$).
.90), including subscales Indifference (α = .90), Abuse (α = .88) and Overcontrol (α = .80). The Maternal MOPS indicated high internal consistency with the current sample with regard to maternal behaviors (α = .90), including subscales Indifference (α = .90), Abuse (α = .87) and Overcontrol (α = .76).

*Child Abuse and Trauma Scale*

The Child Abuse and Trauma Scale (CATS; Sanders & Becker-Lausen 1995) includes 38 self-report items, answered retrospectively by participants regarding childhood experiences with abuse and neglect. Using a 5-point Likert-type scale, participants are instructed to indicate how often they experienced the behavior or condition described in the item, where 0 represents never and 4 represents always. The CATS was developed as a unitary measure of child maltreatment; however its subscales represent the multidimensional nature of child abuse, including emotional abuse, punishment/physical abuse, sexual abuse, and negative home environment/neglect. The CATS was also designed to gather data about subjective perceptions of childhood maltreatment in a way that would decrease response biases due to social desirability. That is, Sanders and Becker-Lausen (1995) intentionally worded questions with tentative, non-threatening language in response to the literature indicating that some survivors of child abuse do not report being abused if asked too directly. Adequate test-retest reliability has been established for the CATS (r = .71 to .91) by previous researchers (Kent & Waller, 1998; Sanders & Becker-Lausen, 1995). Adequate internal consistency has also been reported by previous researchers (Kent & Waller, 1998; Sanders & Becker-Lausen, 1995) for the CATS overall score (α = .90), emotional abuse subscale (α = .88), punishment/physical abuse subscale (α = .80), sexual abuse subscale (α = .76), and negative home environment/neglect subscale (α = .86). The CATS has demonstrated strong predictive value within the college population for psychological symptoms common among
survivors of childhood interpersonal abuse, including depression and dissociation (Kent & Waller, 1998; Sanders & Becker-Lausen, 1995). In addition, CATS scores have also demonstrated strong correlations with measures of interpersonal relationship styles and stressful interpersonally-mediated experiences (e.g., family conflict, specific types of abuse). The total CATS score indicated high internal consistency with the current sample ($\alpha = .90$).

*Experiences in Close Relationships Scale- Revised Short-Form*

Composed of nine self-report items regarding indicators of adult attachment styles (i.e., avoidance and anxiety in close relationships), the ECR-RS (Fraley, Waller, & Brennan, 2011) utilizes a 7-point Likert-type scale for each item, ranging from 1 *strongly disagree* to 7 *strongly agree*. The ECR-RS results in a two-scale score, representing attachment anxiety and attachment avoidance levels. Secure attachment is indicated when scores on both scales are low. Reliability measures for the ECR-RS were reported by Fraley et al. (2011), with internal consistency ranging from $\alpha = .83$ to $\alpha = .87$ for Anxiety and $\alpha = .81$ to $\alpha = .91$ for Avoidance. The 9 items of the ECR-RS were selected from the original ECR-R (Fraley et al., 2000). Fraley et al. (2011) encouraged the use of the ECR-RS for research when the attachment relationship of interest is not a romantic relationship. That is, the language of the ECR-RS is much less specific to the nature of the attachment relationship and allows for participants to complete the items with one specific individual in mind. This type of differentiation may be especially informative for participations who indicate conflictual relationships with someone other than a caregiver or romantic partner (i.e., mentor or advisor). For the purpose of the current study, the ECR-RS was utilized as a measure of attachment with an individual providing career or educational guidance to the participant. Participants were instructed to indicate an important career or academic mentor, their relationship to the mentor (e.g., family member, pastor, coach, academic advisor),
and the number of years they have known the person they selected to answer the ECR-RS items about. The ECR-RS, as utilized for the current study with a career-related mentor as the attachment figure, demonstrated adequate internal consistency for attachment anxiety ($\alpha = .88$) and avoidance ($\alpha = .83$).

**Career Decision Self-Efficacy Scale-Short Form**

The Career Decision Self-Efficacy Scale-Short Form (CDSES; Betz et al., 1996) is a 25-item measure of five constructs related to career decision: 1) accurate self-appraisal, 2) gathering occupational information, 3) goal selection, 4) making plans for the future, and 5) problem solving. Participants are asked to rate their responses to items using a 5-point Likert scale, ranging from 1 (no confidence at all) to 5 (complete confidence). Higher scores mean that the participant likely has higher levels of CDSE. The internal consistency for the total scale reported by Betz et al. (1996) was $\alpha = .97$ and the test-retest reliability was $r = .83$. High scores on the CDSES-SF have also been correlated with career exploration activities (Miller, Roy, Brown, Thomas, & McDaniel, 2009). The CDSES-SF has been used primarily with the college student population. The CDSE-SF indicated high internal consistency with the current sample ($\alpha = .95$). Adequate internal consistency was found for all subscales, including Self-Appraisal ($\alpha = .83$), Gathering Occupational Information ($\alpha = .77$), Goal Selection ($\alpha = .88$), Making Plans for the Future ($\alpha = .80$), and Problem Solving ($\alpha = .81$).

**Data Analysis**

*Hierarchical Regression*

Given the established gap in the literature regarding the role of resources to serve as potential buffers to career decision difficulties for survivors of interpersonal trauma, mediation and moderation analyses were conducted. Analysis of mediating variables is recommended when
a third variable is thought to intervene, either partially or fully, in the relationship between two other variables (Baron & Kenney, 1986; Hayes, 2013). Mediating variables help to explain questions of how or why two variables relate to one other. Analysis of moderating variables is recommended when a third variable is thought to strengthen (or weaken) the relationship between two other variables (Frazier, Tix & Baron, 2004). Moderating variables help to explain questions of for whom or when the relationship is stronger or weaker. In light of the conflicting results of previous research regarding the intersection of interpersonal trauma and career decision variables, the proposed variable (i.e., insecure attachment with a career-related mentor) is thought to potentially mediate or moderate the relationship between trauma-history and career decision.

For multiple regression analyses, the recommended sample size is at least 100 participants and as many as 200 participants, when multivariate assumptions are violated (Harlow, 2005). Based on an a-priori power analysis of multiple regression with three predictor variables and two interaction terms and $\alpha = .95$, a minimum of 97 participants for each outcome variable was recommended (Soper, 2012). The current study utilized a sample of 227 participants, satisfying the recommended criteria to establish adequate power for the planned analyses. It is imperative to have a sample size that is large enough to detect an effect (i.e., power) and lower the chance of a Type II Error (i.e., failing to reject a false null hypothesis), but not so large as to unnecessarily increase the risk of a Type I error (i.e., rejecting a true null hypothesis).

**Moderation Effects**

Hierarchical multiple regression was utilized to examine potential moderating effects of learning experiences (i.e., insecure attachment with a career-related mentor) on the career
decision variable (i.e., CDSE). The testing of moderating effects with the use of hierarchical regression is recommended when the proposed study is grounded in theory (Fraizer et al., 2004). In the case of the current study, the SCCT has been utilized to guide the selection of variables (i.e., contextual and personal barriers and resources). The intent of examining moderation effects is to gain greater understanding of when career decisions are affected by factors associated with childhood maltreatment and for whom career decision difficulties are more likely (Fraizer et al., 2004).

When utilizing hierarchical multiple regression analyses, a number of considerations must be accounted for. Product terms are computed, representing the interaction between centered predictor variables and mediator variables (Hayes, 2013). Continuous variables must be centered in order to reduce multicollinearity, due to the high correlations between predictor variables and the interaction terms (Fraizer et al., 2004). After variables were evaluated for adherence to multivariate assumptions (i.e., normality, linearity, and lack of multicollinearity), the regression equation is created in which variables are entered in a set order (i.e., in blocks). The current study included three hierarchical regression analyses for moderation.

The first hierarchical regression included learning experiences as anxious attachment with a career-related mentor as the outcome variable, background factors as the predictor variable and personal factors as the potential moderator. Block 1 included the control variable. Block 2 included the predictor variable, background factors (i.e., childhood maltreatment). Block 3 included the potential moderator variable, personal factors (i.e., trauma-related symptoms). Finally, Block 4 included the interaction term (i.e., background factors x personal factors). See Figure 2.
The second hierarchical regression included learning experiences avoidant attachment with a career-related mentor as the outcome variable, background factors as the predictor variable and personal factors as the potential moderator. Block 1 included the control variable. Block 2 included the predictor variable, background factors (i.e., childhood maltreatment). Block 3 included the potential moderator variable, personal factors (i.e., trauma-related symptoms). Finally, Block 4 included the interaction term (i.e., background factors x personal factors). See Figure 2.

The third hierarchical regression included CDSE as the dependent variable. Block 1 included the control variable. Block 2 included the predictor variables background factors (i.e., childhood maltreatment) and personal factors (i.e., trauma-related symptoms). Block 3 included learning experiences (i.e., insecure attachment with a career-related mentor). Block 4 included predictor by moderator interaction effects. See Figure 3.

For each block of the analysis, a regression equation was computed, allowing for comparison of each set of variables regarding the prediction of the outcome variable. The resulting regression equations are examined for variables with statistically significant contributions to the prediction of variance in the outcome variable. Evidence of moderation can be explored by examining the final equation where the interaction terms are included. Moderation is likely to have occurred if the resulting regression equation is significant and if an interaction term is a statistically significant contributor to the final regression equation. In addition, the final regression equation should explain more variance in the outcome variable than any of the previous regression equations.
Mediation Effects

Multiple regression equations were utilized to examine potential serial mediation within the SCCT model from background factors (i.e., childhood maltreatment) to CDSE. The following mediators were explored in serial: 1) personal factors (i.e., trauma-related symptoms), 2) learning experiences as anxious attachment with a career-related mentor, and 3) learning experiences as avoidant attachment with a career-related mentor. The intent of examining mediation effects is to gain greater understanding of why and how career decisions are affected by factors associated with childhood maltreatment and/or current trauma-related symptoms (Frazier et al., 2004). Mediation analyses utilizing multiple regression involves running a series of regression equations on the outcome variables, as well as on the mediator variables, in order to examine direct and indirect pathways of influence. When the indirect pathways account for the relationship between predictor and outcome variables better than the direct relationships, mediation is present. The degree to which the mediator accounts for the relationship determines whether there is full or partial mediation of the relationship between predictor and outcome (Hayes, 2013).

Mediation analysis using multiple regression involves comparing the direct and indirect relationships within a model. Traditionally, four steps for mediation analyses have been proposed by Baron and Kenny (1986): 1) A significant relationship between predictor and outcome exists, 2) The predictor is related to the mediator, 3) The mediator is related to the outcome, and 4) The relationship between predictor and outcome can be statistically attributed to the mediator when it is added to the regression. However, step one has been contended in the recent statistics literature and is no longer required (Frazier et al., 2004; Hayes, 2013). Thus, step one may be overlooked in cases where exploration of potential mediation is desired due to a lack of relationship between
predictor and outcome (Baron & Kenny, 1986; Frazier et al., 2004; Hayes, 2013). In the case of the current study, an established relationship between childhood maltreatment and career decision difficulty has not been adequately established in the previous literature, potentially due to mediating variables that fully account for the relationship between childhood maltreatment and career decision factors. For this reason, personal factors (i.e., trauma-related symptoms) and learning experiences (i.e., insecure attachment with a career-related mentor) were proposed to function primarily as mediators of the relationship between background factors (i.e., childhood maltreatment) and CDSE. See Figure 1 for hypothesized relationships between the variables in the SCCT model.

Mediator effects were analyzed following procedures established in the literature (Frazier et al., 2004; Hayes, 2013). The process for using multiple regression for meditational analyses involves the test of sequential equations, involving a series of regressions (Baron & Kenny, 1986). The three regressions include, 1) the direct relationship where the predictor variable is regressed on the outcome variable without mediators present, 2) the first segment of the indirect relationship where the predictor is regressed on the first mediator, 3) the second segment of the indirect relationship where the predictor and previous mediator are regressed on the second mediator, 4) the third segment of the indirect relationship where the predictor and first two mediators are regressed on the third mediator, and 5) the final segment of the indirect relationship where the third mediator is regressed on the outcome variable. When all segments of the indirect relationship are significant and the mediators fully account for the relationship between predictor and outcome (i.e., when the presence of the mediators reduces the direct relationship coefficient from significant to non-significance), the relationship is said to represent a complete mediation model (Frazier et al., 2004). When the mediators account for a greater
amount of the relationship between predictor and outcome than between predictor and outcome alone, the relationship is said to represent a partial mediation model (Frazier et al., 2004).

Significance of the results of serial meditational model is determined by comparing the products of the relationships between a) the predictor and first mediator, b) mediators in serial, and c) the final mediator and the outcome. There are several ways to assess the significance of the indirect pathway(s) from independent variable to mediator to dependent variable. While a fairly common approach is the Sobel test, or normal theory approach, a more conservative approach is preferred when variables are measured with Likert-type scales, as they tend toward non-normal distributions (Hayes, 2013). The bias-corrected bootstrap confidence interval takes into account the actual distribution of the data is more appropriate and sensitive to the data in the current study (Hayes, 2013). According to the bias-corrected bootstrap method, a confidence interval for the indirect pathway is constructed, using 10,000 samples from the dataset. When the obtained confidence intervals do not contain zero, the mediation pathway is determined to be significant (Hayes, 2013). To aid in the efficiency of the calculation of the regression equations and bootstrap confidence intervals, an SPSS syntax macro called PROCESS was utilized (Hayes, 2014). Additionally, PROCESS is designed to run direct and indirect pathways between independent, mediator and dependent variables simultaneously, similar to structural equation modeling, thereby reducing familywise alpha error.
CHAPTER 3

RESULTS

Sample

Participants included 227 male \( n = 77 \) and female \( n = 148 \) undergraduate students who were enrolled in courses through a large, public university in the Southwest during the Fall 2014 semester, when data was collected. Descriptive frequencies for the sample can be found in Table 1. The sample was diverse, with participants identifying as 3.8% Asian or Asian American \( n = 9 \), 17.6% African-American/Black \( n = 18.5 \), 23.8% Latin-American/Hispanic \( n = 54 \), .8% Native American \( n = 2 \), 49.8% Caucasian \( n = 113 \), and 2.9% as other \( n = 7 \). The majority of participants (80.3%) identified as heterosexual, while 5% identified as homosexual, gay or lesbian, 7.1% as bisexual, 2.1% as questioning, and .8% as asexual. In terms of current academic classification, participants identified in the following manner: 25.2% First Year \( n = 60 \), 20.6% Sophomore \( n = 49 \), 26.5% Junior \( n = 63 \), and 23.1% Senior \( n = 55 \). Consequently, the majority of participants \( n = 212 \) indicated that they had chosen a college major prior to completing the study, leaving only 15 participants who had not chosen a college major at the time of the study. In terms of utilization of career counseling services, about 23% of participants reported attending career counseling, while the majority of participants 77\% \( n = 174 \) reported no formal career counseling services. Nearly half \( 46.2\%, n = 110 \) indicated that they had never been employed, while very few participants \( 1.7\%, n = 4 \) reported holding 5-8 different jobs during their lifetime. Participants did not differ regarding the relationship with a career-related mentor (i.e., high school teacher, college professor, therapist/pastor, athletic coach, family, or friend) by gender or current academic classification.
Initial Analyses

Prior to statistical analysis, the dataset was examined for outliers and missing values. Cases with 1-3 missing data-points were retained while cases with a large number of missing values (i.e., missing an entire measure) were removed from further analysis ($n = 10$). In cases with 1-3 missing data-points, the modal response (i.e., most common) for each survey was used in the place of the missing value(s).

Means, standard deviations, and ranges of scores were computed for the measures in an effort to determine the normality of the sample and the appropriateness for multivariate statistics. See Table 2 for correlations between variables and Table 3 for descriptive frequencies of the measures that comprised the variables. The variable background factors was an aggregate of the standardized (i.e., transformed into Z-scores) total CATS score and both standardized total parental MOPS scores, where higher scores indicate greater family dysfunction and/or abuse during childhood. The variable personal factors was an aggregate of the standardized PCLC and the DASS-21 total scores, where higher scores indicate more current symptoms of PTSD, depression and/or anxiety. Learning experiences, anxious or avoidant attachment with a career-related mentor, were calculated using the means of the Anxiety and Avoidant items from the ECR-RS, where higher scores indicate greater attachment insecurity with a career-related mentor. Finally, the career decision variable (i.e., CDSE) was calculated using the total score from the CDSE-SF, where higher scores indicate greater CDSE. As discussed above, both aggregate variables (i.e., Personal and background factors) were composed of standardized scores of the measures that comprised each variable, while all other variables were mean-centered in an effort to reduce the effects of multicollinearity (Baron & Kenny, 1986; Frazier et al., 2004; Harlow, 2005; Hayes, 2013).
The data was examined for normality to be sure the data meets the minimum requirements for the use of multivariate statistics. In order to derive meaningful, accurate results from regression analyses, four major criteria must be met: normality, linearity, homoscedasticity, and independence (Baron & Kenny, 1986; Frazier et al., 2004; Harlow, 2005; Hayes, 2013). The most ideal situation in which a dataset conforms perfectly to all four criteria, is particularly rare in the social sciences, as many variables tend to violate at least one of the aforementioned basic assumptions (Hayes, 2013). However, multiple regression is considered to be a robust analysis procedure, capable of withstanding minor violations to the basic assumptions, with some recommended adjustments to the interpretation of the data (Hayes, 2013). The variables were evaluated for adherence to the basic assumptions of multivariate analyses, including normality, linearity, homoscedasticity, and independence. Normality was evaluated by examining a series of histograms where each of the predictor variables was plotted on the X-axis and each of the dependent variables on the Y-axis. In addition, measures of skewness, the relative symmetry of each variable around the mean, and kurtosis, the height of the peak of a variable distribution, were found to be within normal (0 to +/-2) limits (Kim, 2013). Linearity and homoscedasticity were evaluated through a series of scatterplots where the standardized residuals (i.e., error) of predictor variables were plotted on the X-axis and standardized predicted values of the outcome variables on the Y-axis. An examination of the shape and spread (i.e., variation) of data-points in the scatterplot revealed that the variables were fairly evenly spread about the simple regression line and that the data did not show signs of a curved or other non-linear relationship. Thus, the requirements of linearity and homoscedasticity were both met. Independence of variables was evaluated by examining correlations between the variables. No correlations above \( r = .70 \) were found among the data, thereby preliminarily satisfying the criteria of independence (Hayes,
2013). Lack of collinearity between variables was later confirmed during regression analyses, with no variance inflation factor above 2.0 (Hayes, 2013). Additionally, potential mediator variables were examined for partial correlation not attributable to background factors, in order to determine the appropriate mediation analysis (i.e., parallel or serial). In accordance with Hayes (2013), since two or more of the mediators remained significantly correlated while holding background factors constant, serial mediation analyses were deemed appropriate for the current study. Bootstrapped confidence intervals, based on a bootstrap sample of 10,000 were generated for the regression equations in an effort to increase the accuracy of effects revealed in the analyses.

Using t-tests and one-way ANOVAs, demographic and background data was examined for significant differences on the major SCCT variables in an effort to determine control variables to include in the regression analyses. Gender did not emerge as a potential control variable, as men and women in the current sample did not have significantly different scores on CDSE. However, differences in CDSE were found based on current academic classification (i.e., First Year, Sophomore, Junior, Senior). Thus, current academic classification was retained as a control variable for the regression analyses. See Table 4 for descriptive data by current academic classification.

Exploration of Moderation/Interaction Effects

Hierarchical multiple regression was utilized to explore moderation among the variables in the SCCT model. There were three sets of regressions utilized to explore the role of moderation within the SCCT model. The first set of regressions was utilized to explore the role of personal factors as a moderator of the relationships between background factors and learning experiences, represented as anxious attachment with a career-related mentor. The second set of
regressions was utilized to explore the role of personal factors as a moderator of the relationships between background factors and learning experiences, represented as avoidant attachment with a career-related mentor. The third set was utilized to explore the role of learning experiences as moderators of CDSE for both personal factors and background factors.

In the first set of hierarchical regressions, anxious attachment with a career-related mentor was cast as the dependent variables in the regression model. It was hypothesized that personal factors (i.e., trauma-related symptoms) would moderate the relationship between background factors (i.e., childhood maltreatment) and learning experiences as anxious attachment with a career-related mentor. In order to assess the role of trauma-related symptoms as a moderator, interaction terms were computed and variables were added to the regression equation as previously specified (see Figure 2). Each regression equation was evaluated for significant $R^2$ change in an effort to determine if the addition of the interaction terms provided a meaningful increase in the prediction of anxious attachment with a career-related mentor.

Independent and potential moderating variables were added to the regression equation in four blocks. See Figure 4 and Table 5 for detailed statistics from the moderation regression analysis of anxious attachment with a career-related mentor. Current academic classification was entered as a control variable in the first block and was not significant ($R^2 = 0.07$, $F(1, 225) = 1.17, p = .28$). Background factors (i.e., childhood maltreatment), the independent variable, was entered in the second block, which indicated significant prediction of anxious attachment with a career-related mentor and a significant change in $R^2$ ($R^2 = 0.16$, $R^2$ change = 0.15, $F(1, 224) = 21.00, p < .001$). Personal factors (i.e., trauma-related symptoms), as the potential moderator variable, was entered in the third block, which indicated significant prediction of anxious attachment with a career-related mentor and a significant change in $R^2$ ($R^2 = 0.29$, $R^2$ change =
0.13, $F(1, 223) = 29.63, p < .001$). The interaction term (i.e., childhood maltreatment x trauma-related symptoms) was entered in the fourth block, which also indicated significant prediction of anxious attachment with a career-related mentor and a significant change in $R^2$ ($R^2 = 0.30, R^2$ change $= 0.01, F(1, 222) = 23.61, p < .05$). Further analysis of the aforementioned significant equations is necessary in order to extrapolate the potential influence of personal factors as a moderator variable.

In the first set of hierarchical regressions, the fourth block, which includes the interaction term, resulted in an improvement in the prediction of anxious attachment with a career-related mentor over and above the third block ($R^2$ change $= 0.01, p < .05$). In addition, the interaction term significantly predicted anxious attachment with a career-related mentor ($\beta = 0.12, t = 2.06, p < .05$). Because the forth block contributed to a significant change in $R^2$ over and above the third block, it provides the most relevant prediction for anxious attachment with a career-related mentor. Significant contributions to the fourth block included childhood maltreatment ($\beta = 0.16, t = 2.38, p < .05$), which uniquely explained 2.6% of the variance, trauma-related symptoms ($\beta = 0.40, t = 6.06, p < .001$), which uniquely explained 14.2% of the variance, and the interaction term ($\beta = 0.12, t = 2.06, p < .05$), which uniquely explained 2% of the variance in anxious attachment with a career-related mentor accounted for in the fourth block.

In the second set of hierarchical regressions, avoidant attachment with a career-related mentor was cast as the dependent variable in the regression model. It was hypothesized that personal factors (i.e., trauma-related symptoms) would moderate the relationship between background factors (i.e., childhood maltreatment) and learning experiences as avoidant attachment with a career-related mentor. In order to assess the role of trauma-related symptoms as a moderator, interaction terms were computed and variables were added to the regression
equation as previously specified (see Figure 2). Each regression equation was evaluated for significant $R^2$ change in an effort to determine if the addition of the interaction terms provided a meaningful increase in the prediction of avoidant attachment with a career-related mentor.

Independent and potential moderating variables were added to the regression equation in four blocks. See Figure 5 and Table 6 for detailed statistics from the moderation regression analysis of avoidant attachment with a career-related mentor. Current academic classification was entered as a control variable in the first block and was not significant ($R^2 = 0.01, F(1, 225) = 2.20, p = .14$). Background factors (i.e., childhood maltreatment), the independent variable, was entered in the second block, which indicated significant prediction of avoidant attachment with a career-related mentor and a significant change in $R^2$ ($R^2 = 0.03, R^2$ change = .02, $F(1, 224) = 3.65, p < .05$). Personal factors (i.e., trauma-related symptoms), as the potential moderator variable, was entered in the third block, which indicated significant prediction of avoidant attachment with a career-related mentor, but not a significant change in $R^2$ ($R^2 = 0.04, R^2$ change = 0.01, $F(1, 223) = 3.08, p < .05$). The interaction term (i.e., childhood maltreatment x trauma-related symptoms) was entered in the fourth block, but did not indicate a significant prediction of avoidant attachment with a career-related mentor or a significant change in $R^2$ ($R^2 = 0.04, R^2$ change = 0.00, $F(1, 222) = 2.37, p = .053$). Further analysis of the aforementioned significant equations is necessary in order to extrapolate the potential influence of personal factors as a moderator variable.

In the second set of hierarchical regressions, the fourth block, which includes the interaction term, did not improve the prediction of avoidant attachment with a career-related mentor over and above the third block ($R^2$ change = 0.00, $p = .053$). In addition, the interaction term failed to significantly predict avoidant attachment with a career-related mentor ($\beta = -0.4, t =$
-0.54, \( p = .59 \)). Because the fourth block did not contribute to a significant change in \( R^2 \), the second block of the regression analysis provided the most relevant prediction for avoidant attachment with a career-related mentor, including a significant contribution from childhood maltreatment (\( \beta = 0.15, t = 2.25, p < .05 \)), which uniquely explained 2.2% of the variance in avoidant attachment with a career-related mentor accounted for in the second block.

In the third set of hierarchical regressions, CDSE was cast as the dependent variable in the regression model. It was hypothesized that learning experiences (i.e., insecure attachment with a career-related mentor) would moderate the relationship between Personal (i.e., trauma-related symptoms) and background factors (i.e., childhood maltreatment) and CDSE. In order to assess the role of insecure attachment with a career-related mentor as a moderator, interaction terms were computed and variables were added to the regression equation as previously specified (see Figure 3). Each regression equation was evaluated for significant \( R^2 \) change in an effort to determine if the addition of the interaction terms provided a meaningful increase in the prediction of CDSE.

Independent and potential moderating variables were added to the regression equation in four blocks. See Figure 6 and Table 7 for detailed statistics from the moderation regression analysis of CDSE. Current academic classification was entered as a control variable in the first block and was significant (\( R^2 = 0.30, F(1, 225) = 6.96, p < .001 \)). Background factors and personal factors, the independent variables, were entered in the second block, which indicated significant prediction of CDSE and a significant change in \( R^2 \) (\( R^2 = 0.15, R^2 \) change = 0.12, \( F(3, 223) = 12.62, p < .001 \)). Learning experiences (i.e., insecure attachment with a career-related mentor), as potential moderator variables, were entered in the third block, which indicated significant prediction of CDSE and a significant change in \( R^2 \) (\( R^2 = 0.24, R^2 \) change = 0.10, \( F(5, 221) = 14.00, p < .001 \)).
The Interaction terms (i.e., independent variables x anxious or avoidant attachment with a career-related mentor) were entered in the fourth block, which also indicated a significant prediction of CDSE and a significant change in $R^2$ ($R^2 = 0.28$, $R^2$ change = 0.04, $F(9, 217) = 9.35$, $p < .001$). Further analysis of the fourth block equation is necessary in order to complete the moderation analysis.

The fourth block, where the interaction terms were entered, is of paramount importance regarding the identification of potential moderating effects. Closer analysis of the regression equation produced in the fourth block revealed a slight increase in the prediction of CDSE in comparison to the third block ($R^2$ change = 0.03, $p < .05$). Three of the four interaction terms in the fourth block failed to significantly predict CDSE: childhood maltreatment x anxious attachment with a career-related mentor ($\beta = -0.11$, $t = -1.38$, $p = .17$), childhood maltreatment x avoidant attachment with a career-related mentor ($\beta = 0.01$, $t = 0.38$, $p = .86$), and trauma-related symptoms x avoidant attachment with a career-related mentor ($\beta = -0.05$, $t = -0.70$, $p = .49$).

However, trauma-related symptoms x anxious attachment with a career-related mentor significantly predicted CDSE ($\beta = -0.11$, $t = -1.38$, $p = .17$) and accounted for 4.4% of the variance. Trauma-related symptoms ($\beta = -0.27$, $t = -3.72$, $p < .001$), which uniquely explained 6% of the variance also significantly predicted CDSE. Additionally, both insecure attachment styles significantly predicted CDSE, including anxious attachment with a career-related mentor ($\beta = -0.16$, $t = -2.04$, $p < .05$), which uniquely explained 2% of the variance, and avoidant attachment with a career-related mentor ($\beta = -0.27$, $t = -4.30$, $p < .001$), which uniquely explained 8% of the variance in CDSE accounted for in the fourth block.
Exploration of Mediation

The PROCESS macro (Hayes, 2013) was utilized to conduct simultaneous multiple regression equations to explore serial mediation among the variables in the SCCT model (see Figure 7). Serial mediation of the relationship between background factors (i.e., childhood maltreatment) and CDSE was explored through the mediation pathway indicated in the SCCT model via personal factors (i.e., trauma-related symptoms) and both learning experiences variables (i.e., anxious and avoidant attachment with a career-related mentor). This multiple-mediator model is called serial mediation because one mediator precedes another in a specified directional sequence. In order to explore serial mediation, the relationship between background factors (i.e., childhood maltreatment) and CDSE is examined with and without the presence of mediators. Relationships between the predictor variable and mediator variables are also examined.

Three variables were cast as mediators within the SCCT model: 1) personal factors (i.e., trauma-related symptoms), 2) the learning experience variable anxious attachment with a career-related mentor, and 3) the learning experience variable avoidant attachment with a career-related mentor. In order to explore the appropriateness of serial-mediation, a partial correlation analysis was conducted, controlling for background factors (i.e., childhood maltreatment). Because two or more of the mediators in the current study remained correlated in the partial correlation analysis, serial mediation is indicated (Hayes, 2013). Relationships between variables were tested with and without the mediator variables in order to extrapolate the influence of each mediator in the model. Current academic classification was held constant in the mediation analysis. See Figure 1 for a diagram of the hypothesized relationships between SCCT variables. The significance of indirect effects were evaluated using a confidence interval derived from a bootstrapped sample.
of 10,000, which was calculated with the PROCESS macro (Hayes, 2013). See Figure 7 and Table 8 for detailed statistics of the mediation regression analysis.

In the first regression, the direct relationship between background factors (i.e., childhood maltreatment) and CDSE was explored, with current academic classification as a control variable. Background factors (i.e., childhood maltreatment) was regressed on CDSE, revealing a significant relationship between childhood maltreatment ($\beta = -0.20, t = -3.13, p < .01$) and CDSE ($R^2 = 0.07, F(2, 224) = 8.53, p < .01$). The control variable, current academic classification, was significant ($\beta = 0.18, t = 2.86, p < .01$).

In the second regression, the relationship between background factors and the personal factors was explored as the first segment of the indirect relationship. Background factors (i.e., childhood maltreatment) was regressed on personal factors (i.e., trauma-related symptoms) with academic classification held constant, revealing a significant relationship between childhood maltreatment ($\beta = 0.49, t = 8.50, p < .001$) and trauma-related symptoms ($R^2 = 0.25, F(2, 224) = 36.47, p < .001$).

In the third regression, the second segment of the indirect pathway, between personal factors (i.e., trauma-related symptoms) and the learning experiences variable anxious attachment with a career-related mentor, was explored, controlling for preceding variables, current academic classification and background factors. Personal factors (i.e., trauma-related symptoms), background factors (i.e., childhood maltreatment), and academic classification were regressed on learning experiences as anxious attachment with a career-related mentor. Significant relationships were found for trauma-related symptoms ($\beta = 0.41, t = 6.30, p < .001$) and childhood maltreatment ($\beta = 0.19, t = 2.89, p < .01$) when regressed on anxious attachment with a career-related mentor ($R^2 = 0.29, F(3, 223) = 29.63, p < .001$).
In the fourth regression, the third segment of the indirect pathway, between the learning experiences variable anxious attachment with a career-related mentor and the learning experiences variable avoidant attachment style with a career-related mentor, was explored, controlling for all previous variables. Learning experiences as anxious attachment with a career-related mentor, personal factors (i.e., trauma-related symptoms), background factors (i.e., childhood maltreatment), and academic classification were regressed on learning experiences as avoidant attachment with a career-related mentor. Significant relationships were found for anxious attachment with a career-related mentor ($\beta = 0.35$, $t = 4.73$, $p < .001$), but not for trauma-related symptoms ($\beta = -0.04$, $t = -0.51$, $p = .61$) or childhood maltreatment ($\beta = 0.03$, $t = 0.42$, $p = .68$) when regressed on anxious attachment with a career-related mentor ($R^2 = 0.13$, $F(4, 222) = 8.12$, $p < .001$).

In the fifth regression, the final segment of the indirect pathway, between the learning experiences variable avoidant attachment with a career-related mentor and CDSE, was explored, holding all previous variables constant. Learning experiences variable avoidant attachment with a career-related mentor, learning experiences variable anxious attachment with a career-related mentor, personal factors (i.e., trauma-related symptoms), background factors (i.e., childhood maltreatment), and academic classification were regressed on CDSE. The full regression equation with CDSE as the dependent variable was significant ($R^2 = 0.24$, $F(5, 221) = 14.22$, $p < .001$). The relationship between avoidant attachment with a career-related mentor and CDSE was significant ($\beta = -0.30$, $t = -4.72$, $p < .001$). The relationship between personal factors (i.e., trauma-related symptoms) and CDSE was significant ($\beta = -0.25$, $t = -3.47$, $p < .01$). The relationship between anxious attachment with a career-related mentor and CDSE was not significant ($\beta = -0.07$, $t = -0.99$, $p = .33$). Finally, the relationship between background factors
(i.e., childhood maltreatment) and CDSE was reduced and non-significant ($\beta = -0.01, t = -0.07, p = .94$) when trauma-related symptoms, anxious attachment with a career-related mentor and avoidant attachment with a career-related mentor were present.

The statistical significance of the indirect effects were evaluated using the PROCESS macro (Hayes, 2013). The indirect pathways were compared to the direct pathways using the percentile bootstrapping method, which is a more conservative method than the Normal Theory/Sobel Test approach (Hayes, 2013). For the purpose of the current study, a bootstrapped sample of 10,000 was sought, where 10,000 re-samples of the current dataset was conducted in a manner to maintain the distribution of the original data. When the parameters of the bootstrapped 95% confidence interval do not contain zero, the indirect effects are significant, whereas, if the confidence intervals contain zero, the indirect effects are not significant.

Using the PROCESS macro (Hayes, 2013), confidence intervals were calculated for seven indirection pathways within the SCCT model. See Table 9 for details on all seven pathways. The three significant pathways between background factors (i.e., childhood maltreatment) and CDSE of primary interest to the current study. The first significant indirect pathway was found between childhood maltreatment, trauma-related symptoms, and CDSE, with a 95% bootstrapped confidence interval from -1.50 to -0.29, indicating mediation by personal factors (i.e., trauma-related symptoms). The second significant indirect pathway was found between childhood maltreatment, trauma-related symptoms, anxious attachment with a career-related mentor, avoidant attachment with a career-related mentor and CDSE, with a 95% bootstrapped confidence interval from -0.28 to -0.05, indicating serial mediation. Finally, the third significant indirect pathway was found between childhood maltreatment, anxious attachment with a career-related mentor, avoidant attachment with a career-related mentor and
CDSE, with a 95% bootstrapped confidence interval from -0.30 to -0.03, indicating mediation by learning experiences (i.e., anxious and avoidant attachment with a career-related mentor).
CHAPTER 4
DISCUSSION

The relationship between childhood maltreatment and later career outcomes has received little attention in the literature and the scant research that does exist has not elucidated this inexorably complex dynamic with much success (Albaugh & Nauta, 2005; Brown et al., 2000; Chronister & McWhirter, 2004; Coursol et al., 2001; Gianakos, 1999; Ryan et al., 1996; Strauser et al., 2006). Direct relationships between interpersonal trauma in childhood and career decision variables has been the focus of previous research, while intervening or indirect relationships have been largely overlooked. The current study enlisted both moderation and mediation analyses in an effort to offer a more robust exploration of variables that potentially obscure or otherwise account for the relationship between childhood maltreatment and career decisions. Using the SCCT model (Lent & Brown, 2006; Lent et al., 1994, 2000) as theoretical scaffolding and multiple regression analyses as the statistical raw materials, a basic framework has been carefully constructed that reveals the complex network between interpersonal trauma in childhood and career decisions. The variables of primary interest in the SCCT model adapted for the current study included personal factors (i.e., trauma-related symptoms), background factors (i.e., childhood maltreatment), learning experiences (i.e., insecure attachment with a career-related mentor), and CDSE. As indicated in the SCCT model, two potential sources of moderation were explored: 1) The role of personal factors as a moderator between background factors and learning experiences, and 2) The role of learning experiences as a moderator between both Background and personal factors and CDSE. Mediation was explored with personal factors and learning experiences as serial mediators of background factors in the relationship with CDSE.
Summary of Findings

Using the SCCT model as a guide to determine variable placement and direction of hypothesized relationships, three sets of hierarchical regression analyses for moderation were explored. In the first set of hierarchical regressions, personal factors (i.e., trauma-related symptoms) moderated the relationship between background factors (i.e., childhood maltreatment) and learning experiences as anxious attachment with a career-related mentor. In the second set of hierarchical regressions, personal factors (i.e., trauma-related symptoms) did not moderate the relationship between background factors (i.e., childhood maltreatment) and learning experiences as avoidant attachment with a career-related mentor. In the third set of hierarchical regressions, with CDSE as the outcome variable, learning experiences as anxious attachment with a career-related mentor moderated the relationship with CDSE for personal factors, but not background factors. Learning experiences as avoidant attachment with a career-related mentor did not function as a moderator for either Personal or background factors.

With regard to mediation, evidence for serial mediation of the relationship between background factors (i.e., childhood maltreatment) and CDSE was found. More specifically, personal factors (i.e., trauma-related symptoms) and learning experiences, both anxious and avoidant attachment with a career-related mentor fully mediated the relationship between Background factors (i.e., childhood maltreatment) and CDSE. In addition, three indirect pathways between background factors (i.e., childhood maltreatment) and CDSE were significant through the following mediators: 1) personal factors (i.e., trauma-related symptoms), 2) personal factors (i.e., trauma-related symptoms), anxious attachment with a career-related mentor, and avoidant attachment with a career-related mentor, and 3) anxious attachment with a career-related mentor and avoidant attachment with a career-related mentor. The mediation of the
relationship between background factors (i.e., childhood maltreatment) and CDSE through three variables sheds light on the complexity of the relationship between childhood maltreatment and career decisions. More in-depth discussions of the results of the moderation and mediation analyses in this study, including implication for future research and applied settings, follow.

*Moderation*

Moderation helps to explain the conditions under which a predictor variable is related to an outcome variable. For example, testing moderation with the SCCT model could help to explain the conditions under which indications of childhood maltreatment or trauma-related symptoms influences CDSE. Testing for moderation involves comparing a series of planned regression equations for increases in the amount of variance explained in the outcome variable. The main focus of a moderation analysis is on the interaction terms, or simply the interaction between predictor and potential moderator variables. Logically, the interaction terms are the product of predictor variables and potential moderating variables. The interaction terms reveal whether a moderating variable alters the effect of a predictor variable on the dependent variable. If moderation occurs, then the interaction term will emerge as a significant predictor of the dependent variable and a significant change in the prediction in the amount of variance in the dependent variable (i.e., $R^2$ change) will occur. Hierarchical multiple regression for moderation analyses involves entering variables in pre-determined blocks and evaluating the change in $R^2$ for enhancement (i.e., strengthening), buffering (i.e., blocking) or antagonistic (i.e., directional) effects. For the current study, moderation analyses were conducted in three sets of hierarchical regressions in an effort to explore the role of moderation between the variables as indicated in the SCCT model.
The first set of hierarchical regressions was used to explore the moderation of learning experiences as anxious attachment with a career-related mentor by personal factors (i.e., trauma-related symptoms) as predicted by background factors (i.e., childhood maltreatment). The role of personal factors as a potential moderator is suggested in the SCCT model by a bidirectional arrow between Personal and background factors. Since trauma-related symptoms are more likely to occur chronologically after being exposed to childhood maltreatment, personal factors were cast as the potential moderator of background factors for the current study. Thus, the relationship between Personal and background factors was only explored in one direction for the purpose of the current study. The fourth block, where the interaction term (i.e., trauma-related symptoms x childhood maltreatment) was added, resulted in a significant prediction of the variance in anxious attachment with a career-related mentor. Additionally, both trauma-related symptoms and childhood maltreatment emerged as significant predictors of anxious attachment with a career-related mentor in the third block. Trauma-related symptoms appears to function as a moderator for childhood maltreatment in the relationship with anxious attachment with a career-related mentor. An enhancing effect appears to occur at the highest levels of trauma-related symptoms, as when both the level of trauma-related symptoms and childhood maltreatment increases, anxious attachment with a career-related mentor increases. Further, at lower levels of trauma-related symptoms, higher levels of reported childhood maltreatment does not result in as large of an increase in anxious attachment with a career-related mentor. Thus, for individuals with childhood maltreatment, those with higher levels of trauma-related symptoms are most likely to have higher levels of anxious attachment with a career-related mentor.

In the second set of hierarchical regressions, personal factors (i.e., trauma-related symptoms) was explored as a moderator of the relationship between background factors (i.e.,
childhood maltreatment) and learning experiences as avoidant attachment with a career-related mentor. Avoidant attachment with a career-related mentor was cast as the outcome variable in the second set of regressions. The fourth block, where the interaction term (i.e., trauma-related symptoms x childhood maltreatment) was added, did not add a significant amount of prediction to the variance in avoidant attachment with a career-related mentor. Thus, trauma-related symptoms does not appear to function as a moderator for childhood maltreatment in the relationship with avoidant attachment with a career-related mentor. That is, an avoidant attachment relationship with a career mentor does not appear to be affected to a greater or lesser degree by the interaction of level of trauma-related symptoms and the number of reported events suggestive of childhood maltreatment.

In the third set of hierarchical regressions, moderation was explored with Personal and background factors as the independent variables, learning experiences (i.e., anxious and avoidant attachment with a career-related mentor) as moderator variables, and CDSE as the outcome variable. The hypothesis that learning experiences (i.e., anxious and avoidant attachment with a career-related mentor) moderated the relationship between background factors and CDSE was not supported. The hypothesis that learning experiences (i.e., anxious and avoidant attachment with a career-related mentor) moderated the relationship between personal factors and CDSE was supported for anxious, but not avoidant, attachment with a career-related mentor. That is, only the interaction term trauma-related symptoms x anxious attachment with a career-related mentor was a significant predictor of CDSE. This interaction suggests a buffering or epiphenomenal interaction where at higher levels of trauma-related symptoms, the difference in CDSE based on anxious attachment with a career-related mentor was obscured. That is, when higher trauma-related symptoms were present, lower CDSE for all levels of anxious attachment
with a career-related mentor were present. At lower levels of trauma-related symptoms, there was a greater difference in CDSE by level of anxious attachment with a career-related mentor, with higher anxious attachment predicting lower CDSE. Perhaps at the highest levels of symptoms, anxious attachment with a career-related mentor does not occur in isolation, as combinations of anxious and avoidant styles has been suggested in the literature (e.g., Hazan & Shaver, 1990). Rather, it is possible that a predominantly anxious attachment style is utilized at lower levels of trauma-related symptoms, while a predominantly avoidant style is employed at higher levels of trauma-related symptoms, resulting in a loss of predictive power of anxious attachment at higher levels of trauma-related symptoms. Unfortunately, the simple moderation analysis employed in the current study did not allow for further conclusions regarding potential epiphenomenal interactions.

To summarize the results of the moderation analyses, the current study has diligently cast light into a specific corner of darkness, using carefully-selected angles, and has emerged with an elaborate cast of shadows, requiring further analysis under redirected lighting. Learning experiences as avoidant attachment with a career-related mentor did not emerge as a significant moderator of Personal or background factors with regard to CDSE. However, learning experiences as anxious attachment with a career-related mentor was a significant moderator of personal factors in the relationship with CDSE. Further, personal factors (i.e., trauma-related symptoms) moderated the relationship between background factors (i.e., childhood maltreatment) and learning experiences as anxious, but not avoidant, attachment with a career-related mentor. Based on these moderation analyses, implications for research, theory and applied settings are discussed in following sections.
Mediation

Mediation analyses were conducted in an effort to explore the relationship, or historically, a lack of relationship, between childhood maltreatment and career decisions. At the core of mediation analyses is the assumption that a third, or intermediary, variable can explain all or part of the direct relationship between a predictor and an outcome variable. In the current study, a series of mediation analysis were explored, in order to garner a more complete understanding of the elusive relationship between childhood maltreatment and career decision difficulty. Testing for mediation involves a set of regression equations that test for main effects (i.e., between predictor and outcome) and indirect effects (i.e., between predictor mediator and outcome). Using the structure of the SCCT model, a series of mediation analyses were employed to examine an indirect pathway between background factors (i.e., childhood maltreatment) and CDSE through personal factors (i.e., trauma-related symptoms) and learning experiences (i.e., insecure attachment with a career-related mentor).

As with the moderation analysis of personal factors, the SCCT model is suggestive of multiple sources of mediation that occur in sequence. This sort of mediation of a potential mediator is not uncommon and is often referred to as serial mediation (Hayes, 2013). In the case of the current study, serial mediation was explored because personal factors (i.e., trauma-related symptoms) are arranged in the model as a precedent to learning experiences (i.e., insecure attachment with a career-related mentor). That is, the variance accounted for in CDSE by personal factors (i.e., trauma-related symptoms) was controlled for in the indirect relationships with learning experiences (i.e., insecure attachment with a career-related mentor). Nevertheless, the process of assessing the presence of mediation remains unchanged.
In order to examine the extent of mediation, predictor and potential mediator variables are regressed on the outcome variable at once. First, it is necessary for potential mediator variable (i.e., learning experiences) to significantly predict the outcome variable (i.e., CDSE), thereby completing the indirect pathway. Secondly, in order for mediation to have occurred, as opposed to parallel co-variation, the previous direct relationships between predictors and outcome must be substantially reduced. When the relationship between predictor and outcome is reduced from a significant coefficient to a non-significant coefficient, the mediator is said to have fully mediated the relationship between predictor and outcome. When the relationship between predictor and outcome is reduced, but still results in a significant coefficient, the relationship is said to have partially mediated the relationship between predictor and outcome.

First, background factors (i.e., childhood maltreatment) was regressed on CDSE to explore the presence of a direct relationship without the presence of mediators. Then, background factors (i.e., childhood maltreatment) was regressed on personal factors (i.e., trauma-related symptoms) to assess the first part of the indirect pathway. Next, personal factors (i.e., trauma-related symptoms) and background factors (i.e., trauma-relates symptoms) were regressed on learning experiences as anxious attachment with a career-related mentor, to assess the second part of the indirect pathway. Then, all preceding variables were regressed on learning experiences as avoidant attachment with a career-related mentor to assess the third segment of the indirect pathway. Finally, all variables were regressed on CDSE to assess the final segment of the indirect pathway.

The results of the mediation analyses indicated significant serial mediation of background factors (i.e., childhood maltreatment) by personal factors (i.e., trauma-related symptoms) and learning experiences (i.e., insecure attachment with a career-related mentor) was present in the
current study. The direct relationship between background factors (i.e., childhood maltreatment) and CDSE was significant without the presence of potential mediators. With the presence of the aforementioned mediators, the relationship between background factors and CDSE was reduced to non-significance, which suggest full mediation of background factors. Additionally, all segments of the indirect pathway were significant.

The presence of a direct relationship between background factors (i.e., childhood maltreatment) is notable because much of the previous literature demonstrated a lack of relationship between childhood maltreatment and career decisions. There are several potential reasons why the current study revealed significant direct relationships between a career decision variable and both trauma-related symptoms and childhood maltreatment where previous studies did not. One potential factor is that the current study employed a series of measurements of both trauma-related symptoms and childhood maltreatment, whereas previous studies used more limited measures, such as asking participants to identify the types of abuse they encountered during childhood from a list or inquiring only about one specific type of abuse (Albaugh & Nauta, 2005; Coursol et al., 2001; Hellmich, 1995; Strauser et al., 2006; Zvirblis, 2000). The use of broad measures of childhood interpersonal abuse was intentional, as the narrow frame of previous research was seen as an unnecessarily limiting practice. Additionally, emotional abuse and neglect were largely ignored in the previous research, but were included in measures of childhood maltreatment in the current study (Albaugh & Nauta, 2005; Coursol et al., 2001; Hellmich, 1995; Strauser et al., 2006; Zvirblis, 2000).

Another factor that may have contributed to the significance of the direct effect in the current study was the use of a sample from the general college population, as opposed to an abuse-positive population. That is, in the previous literature, several studies only utilized
participants who identified as trauma survivors (Chronister & McWhirter, 2004; Hellmich, 1995; Zvirblis, 2000). The aforementioned practice may have created a very narrow range of interpersonal trauma-related experiences and symptoms, likely on the higher end of the spectrum, setting a very high base-rate. However, the current study intentionally utilized a sample likely to report a wider range of experiences and symptoms related to childhood maltreatment, with the expectation of a more normal distribution. When samples are skewed to the extremes or have an abnormally narrow distribution (a.k.a., abnormal kurtosis), they violate assumptions of normality and make it more difficult to apply and interpret multivariate statistics, such as multiple regression. In the current study, relatively normal distributions of childhood maltreatment and trauma-related symptoms were achieved, allowing for the proper use and interpretation of results from multiple regression analyses.

With regard to personal factors (i.e., trauma-related symptoms) as a mediator, the data support the hypothesis that trauma-related symptoms mediate the relationship between background factors (i.e., childhood maltreatment) and learning experiences (i.e., insecure attachment with a career-related mentor). The significance of the indirect pathway between background factors (i.e., childhood maltreatment) and CDSE that included personal factors (i.e., trauma-related symptoms) was confirmed through the bootstrapped 95% confidence interval, which did not contain zero. Additionally, all regression coefficients were positive, indicating that a higher reporting of events associated with childhood maltreatment predict higher symptoms of trauma, which in turn predict higher attachment insecurity with a career-related mentor. From an applied perspective, this mediation is quite logical, as childhood maltreatment increases the risk of trauma-related symptoms (e.g., Briere & Scott, 2006; Callahan et al., 2003; Lee & Tolman, 2006; Perry, 2008; Wainraib, 2006), which could interfere with the development of secure
attachments in adulthood (i.e., to a career-related mentor) due to the presence of symptoms that make interpersonal interactions difficult (e.g., anxiety, fear, anger, withdrawal, impulsivity). With heightened arousal, a symptom of PTSD and anxiety disorders (American Psychiatric Association, 2013), survivors of childhood maltreatment may have greater difficulty forming attachments with a career-related mentor due to heightened sensitivity to events that might otherwise be an innocuous or unremarkable (e.g., a potential mentor rescheduling or missing a meeting, showing disapproval, or even ending the mentoring relationship due to life circumstances).

With regard to learning experiences (i.e., insecure attachment with a career-related mentor) as a mediator of CDSE, the indirect pathways for anxious and avoidant attachment with a career-related mentor were significant. That is, the remaining indirect pathways between childhood maltreatment and CDSE not accounted for by trauma-related symptoms, were all significant. The second leg of the significant indirect pathway between personal factors (i.e., trauma-related symptoms) and anxious attachment with a career-related mentor indicates that insecure attachment with a career-related mentor is influenced by trauma-related symptoms. Additionally, the direct relationship between childhood maltreatment and anxious attachment with a career-related mentor remained significant, indicating partial mediation by trauma-related symptoms. The third and fourth segments of the significant indirect pathway indicates that childhood maltreatment influences CDSE through trauma-related symptoms, anxious attachment with a career-related mentor and, finally, through avoidant attachment with a career-related mentor. The positive coefficients for each segment of the indirect pathway between childhood maltreatment and avoidant attachment with a career-related mentor, suggests that as more events of childhood maltreatment are reported, higher levels of trauma-related symptoms are reported,
which results in higher anxious attachment with a career-related mentor, which results in higher avoidant attachment with a career-related mentor. The negative coefficient between avoidant attachment with a career-related mentor and CDSE indicates that as avoidant attachment increases, CDSE decreases. Thus, the indirect pathway suggests that childhood maltreatment predicts higher trauma-related symptoms, which predicts higher attachment insecurity with a career-related mentor, resulting in lower self-efficacy with regard to career decisions.

In order to facilitate a more robust understanding of how the learning experiences, both anxious and avoidant attachment with a career-related mentor, function as mediators within in the structure of the SCCT model, the variables are discussed in more depth. The role of learning experiences as serial mediators of CDSE helps explain how childhood maltreatment and trauma-related symptoms influence career decisions, both directly and indirectly. The mediating role of learning experiences (i.e., insecure attachment with a career-related mentor) offers a potentially unique contribution to the literature regarding childhood maltreatment and career decisions.

From the applied perspective, consider the previous discussion about the role of trauma-related symptoms influencing attachment style with a career-related mentor. Extending the previous discussion, consider how an insecure attachment style with a career-related mentor could make it difficult for an individual to get their needs met from the relationship if they are fearful and/or avoidant. As human beings, we derive knowledge about ourselves through experiences and relationships. Given the results of the current study, a child whose home environment, due to neglect and/or abuse, lacks the support and mirroring that is necessary to foster positive self-efficacy with regard to their future vocation would benefit from the support of an alternative career-related mentor. An alternative career-related mentor can help individuals from
backgrounds with childhood maltreatment to derive a sense of positive self-efficacy that may aid in later career decisions.

In summary, the mediation analyses have illuminated the dimly-lit corners of an oft neglected corner of research. First, background factors (i.e., childhood maltreatment) emerged as a significant predictor of CDSE. Secondly, personal factors (i.e., trauma-related symptoms) and learning experiences (i.e., anxious and avoidant attachment with a career-related mentor) emerged as significant mediators of the relationship between background factors (i.e., childhood maltreatment) and CDSE, where full mediation was evident. These mediation analyses support the basic structure of the SCCT model and offer a better understanding of how childhood maltreatment can influence career decisions. In a word: Indirectly. Based on these mediation analyses, implications for research, theory and applied settings will be discussed in following sections.

Implications of Findings

Theoretical Implications

Prior to conducting these analyses, there was but scant support for the relationship between childhood maltreatment and career decision factors in the existing literature (Albaugh & Nauta, 2005; Chronister & McWhirter, 2004; Coursol et al., 2001; Gianakos, 1999; Ryan et al., 1996; Strauser et al., 2006; Zvirblis, 2000). The application of variables unique to survivors of childhood maltreatment within the SCCT model was suggested in the previous literature (e.g., Chronister & McWhirter, 2004), including the potential role of barriers and resources as intervening variables in the direct relationship between interpersonal trauma and CDSE. However, learning experiences as insecure attachment with a career-related mentor had not previously been explored within the context of the SCCT. That is, anxious and avoidant
attachment with a career-related mentor had not previously been cast as learning experiences with potential intervening roles between background factors and CDSE. Since the SCCT model did not specify whether variables were cast as moderators or mediators, both types of analyses were explored in an effort to garner a full range of the possible explanations encapsulated by the relationships in the model. Both the moderation and mediation analyses lend support for the use of the SCCT model to explain how childhood maltreatment can affect career decision factors, specifically, CDSE.

Prior to the current study, attachment style had been explored as a variable influencing career decision factors (Blustein et al., 1991; Lease & Dahlbeck, 2009; Lee & Kim, 2015; Ryan et al., 1996), just not within the SCCT model. As a learned pattern of interpersonal behaviors based on early relationships with caregivers, attachment style seemed like a logical choice for the current study to cast in the role of learning experiences. The focus of attachment style within the current study involved anxious or avoidant attachment as expressed in the relationship with a career-related mentor. The decision to focus on insecure attachment with a career mentor instead of a parental figure was made in order to gain a more robust depiction of the resources and barriers functioning within the relationships of the SCCT model. Hypothetically, a career-related mentor could serve as a resource for individuals with and without childhood maltreatment, but could be especially facilitative to an individual with fewer resources at the outset. That is, in families where childhood maltreatment is present, caregivers may not be readily available as career mentors, requiring some individuals to seek alternative mentors outside the child-caregiver relationship. The data supported the hypothesis that both anxious and avoidant attachment with a career-related mentor function as serial mediators of the relationship between
childhood maltreatment and CDSE, but anxious attachment also functions as a moderator of the relationship between trauma-related symptoms and CDSE.

Additional support for the use of SCCT model in elucidating the relationship between interpersonal trauma and CDSE was obtained with regard to the role of personal factors (i.e., trauma-related symptoms) as an intervening variable between background factors (i.e., childhood maltreatment) and learning experiences as anxious attachment with a career-related mentor. That is, personal factors (i.e., trauma-related symptoms) functioned as a serial mediator of the relationship between background factors (i.e., childhood maltreatment) and CDSE. This serial mediation indicates that as childhood maltreatment increases (i.e., higher reports of trauma-related events or problematic parenting behaviors), trauma-related symptoms increase, which, in turn, results in higher attachment insecurity with a career-related mentor and lower CDSE. While it is unlikely that all of the trauma-related symptoms measured in the current study were the result of childhood maltreatment, the direct relationship between childhood maltreatment and anxious attachment with a career-related mentor allows room for the assumption that childhood maltreatment influences attachment style to a degree that may only be partially accounted for by trauma-related symptoms. Similarly, the significant indirect pathway between background factors (i.e., childhood maltreatment) and learning experiences (i.e., anxious attachment with a career-related mentor) through personal factors (i.e., trauma-related symptoms), indicates that this relationship is at least partially due to the presence of symptoms related to PTSD, depression and/or anxiety. Of course, not all survivors of childhood maltreatment experience trauma-related symptoms and disruptions in adult attachment could be due to something other than interpersonal trauma during childhood. The serial mediation effects of personal factors (i.e., trauma-related symptoms) in the relationship between background factors (i.e., childhood maltreatment) and
learning experiences (i.e., insecure attachment with a career-related mentor) supports the basic theory behind the SCCT model.

**Clinical Implications**

The findings of the current study are not just theoretically intriguing, but clinically applicable as well. Since the study employed a sample of students currently enrolled in undergraduate courses, the results may be particularly meaningful to college mental health therapists and career counselors, as well as academic advisors and professors who mentor undergraduates. Because the data involved retrospective accounts of interpersonal trauma in childhood, parents, teachers, school counselors, and volunteers who work with children may also find practical utility in the results of the current study. Finally, due to the focus on interpersonal trauma, mental health therapists and advocates who work with survivors of childhood maltreatment may be well-suited to apply the findings of the current research.

Mentors, advisors, career counselors and mental health therapists involved with college students could potentially benefit from a number of findings related to the current study. While it may be rather obvious, it is important to understand that college students do not arrive on campus suddenly freed from the various detriments and distractions that remain as byproducts of their previous experiences. The literature is rife with examples of the long-term effects of interpersonal trauma, which are varied and pervasive, affecting interpersonal relationships, mental health, cognitive functioning and behaviors (Briere & Scott, 2006; Callahan et al., 2003; Lee & Tolman, 2006; Perry, 2008; Wainrib, 2006). The current study revealed direct relationships between trauma-related symptoms and CDSE, as well as between childhood maltreatment and CDSE in a sample of undergraduate students. Trauma-related symptoms played a particularly important role, as they also functioned as a mediator of the relationship
between childhood maltreatment and attachment style with a career-related mentor. Thus, college mental health therapists could help students to recognize and pursue treatment for symptoms related to childhood maltreatment, so that their relationships with college career-related mentors (e.g., academic advisors, major professors, student personnel professionals) could be experienced more positively and potentially allow for better CDSE, at the least. Further, college career-related mentors could address the importance of resolving the traumas of one’s youth through mental health services available on college campuses in order to prevent the negative impact of trauma on career decision factors. College career-related mentors are also favorably poised to address avoidance and anxiety that impact the mentor relationship, which are present in high levels of attachment insecurity which predicts lower CDSE. College career counselors could utilize the findings of the current study by adopting a trauma-informed practice, where symptoms of trauma and indicators of childhood maltreatment are assessed along with career inventories. College personnel can function as valuable resources for survivors of childhood maltreatment, perhaps creating the proper conditions for a survivor to overcome their history and feel safe to explore themselves and their career options.

Caregivers, teachers, school counselors, and volunteers who work with children and adolescents may find the results of the current study applicable to their interactions with children and adolescents who have been exposed to interpersonal trauma. Given the retrospective nature of the current study, where participants completed inventories of parental interactions and interpersonal abuse experienced under the age of 16, individuals poised to intervene directly in the experiences of children and adolescents could provide targeted early intervention. Caregivers, teachers, school counselors, and volunteers could be informed of the long-term impact of interpersonal trauma on career decisions. This may be particularly important for
children who have been removed from living situations due to interpersonal abuse. Children currently in foster care could be provided with mentors who involve children and adolescents in career-related activities. Volunteer mentoring programs could provide career-related programming for children and adolescents that involves the opportunity to experience a positive, secure attachment relationship and encourages an experiential disposition in which internal experiences are embraced, rather than avoided. Further, school counselors could help to identify children and adolescents who are impacted by interpersonal trauma and/or trauma-related symptoms and offer career-related mentoring in conjunction with any therapeutic services already offered. Early, multidimensional intervention may be key to reducing the impact of childhood maltreatment on various aspects of an individual’s life, including, but certainly not limited to, career decision factors.

Trauma interventionists (e.g., advocates and therapists) may find the results of the current study helpful in their work with survivors of interpersonal trauma, particularly those with a history of childhood maltreatment who have had limited exposure to career-development resources. The results of the current study may apply to service-seeking adults, as many survivors of adult interpersonal trauma are also survivors of childhood maltreatment (Briere & Scott, 2006). Since most trauma intervention agencies cater primarily to survivors of adult interpersonal trauma, much of the intervention services are short-term and oriented toward achieving safety and providing resources necessary for immediate survival. If career-related services are not part of primary intervention services, trauma intervention agencies should consider the potential importance and impact of providing service seekers with at least basic career decision resources. Further, trauma intervention agencies could develop career mentoring programs designed to provide survivors of trauma with ongoing resources via career-oriented
relationships, thereby creating the opportunity for survivors of interpersonal trauma to experience a supportive, efficacy-enhancing relationship. Trauma interventionists could also educate primary and secondary victims of childhood maltreatment on the importance of resolving symptoms of trauma in an effort to promote post-traumatic growth.

The findings of the current study can be applied in a variety of settings, including college and university support services, public schools, child and adolescent volunteer programs, and trauma intervention agencies. Interventions should be developmentally appropriate and aimed at increasing opportunities for post-traumatic growth, by addressing symptoms of trauma and providing alternative career-related mentors. While the results of the current study are correlational in nature and causal conclusions are limited, integrating trauma-informed perspectives and resources into the aforementioned settings will likely benefit survivors of childhood maltreatment.

Methodological Limitations

*External Validity and Generalizability*

Despite the overall sound design of the current study, the disclosure of limitations is imperative to obtain a balanced understanding of the results. Many of the limitations are akin to those of studies with similar design. The current study utilized a convenience sample of undergraduate psychology students between the ages of 18-25. This is important, as college students may differ from the broader population with regard to slightly higher than average intelligence, greater resource availability and/or utilization, and age, as discussed above. Further, most of the participants were enrolled in an introductory Psychology course, which included participation in research as a course requirement. Thus, the current study is vulnerable to a selection bias, as most of the participants likely engaged in the study in an effort to fulfill a
course requirement. The results of the current study are most generalizable to college students who are between 18-25 years old.

The current study is also vulnerable to response bias. The data were collected through a secure website, allowing participants to answer surveys at their own pace. Arguably, this may have allowed for a greater sense of privacy than a paper-and-pencil administration in a room full of other participants. However, the online format may also have inadvertently decreased a sense of privacy due to the environment in which a participant accessed the study (e.g., in a campus computer lab). In addition, some participants may harbor a general distrust of the internet and/or research. Participants may have altered their responding to mitigate aversive emotional experiences associated with answering difficult questions about childhood maltreatment (e.g., shame, embarrassment, guilt), particularly if the aforementioned concerns were present. In addition, some participants may not have answered honestly in an attempt to offer socially-acceptable responses, or perhaps due to research involvement being a course requirement. None of the instruments used in the current study included measures of validity, response bias, or social desirability, so it is unknown whether any participants engaged in these particular styles of responding.

Another limitation to the generalizability of results resides in the statistical analyses employed for the purposes of the current study. Multiple regression analyses, while more sophisticated than simple Pearson r comparisons, are essentially measures of correlation. This is important because the results of the current study cannot be used to draw causal inferences. In order to draw causal inference, a quasi-experimental or experimental design is necessary.
Statistical Power

There are a few considerations regarding potential limitations of the statistics used. First, multiple regression analyses for moderation and mediation involve running several sets of regression equations and then comparing them. The main concern regarding multiple comparisons is the risk of familywise alpha error, which, according to some statisticians, increases Type I error rate. Since concerns about familywise alpha error are contended in the statistics literature, a discussion of the issues as pertaining to the current study will follow. Another potential concern worthy of discussion involves competition among variables in regression equations and the resulting power to detect mediation and moderation effects. In multiple regression equations where the variables are correlated, competition among variables occurs in the explanation of variance in the dependent variable, which can reduce the power of the regression analysis to identify mediator and moderator effects.

With regard to the concerns around familywise alpha error, there is disagreement in the statistics literature about whether or not repeated comparisons increase the risk of Type I error, or finding false significant results. In the current study, both mediation and moderation analyses were explored, whereby several sets of regression analyses were utilized. From the perspective of some researchers, multiple comparisons from the same data set increases the probability of obtaining a false positive, or Type I error, thus requiring adjustments in the alpha level, from .05 to some lesser number, dependent on the number of variables and comparisons in the analysis. However, other researchers contend that familywise alpha error is an unavoidable risk of engaging in research. To illustrate this point, consider the use of large, public data-bases or archival data. Since no effort is made to track the number of researchers accessing these datasets, nor the number of analyses run by each researcher, it would be nearly impossible to discern how
stringently to set the alpha level in further planned comparisons with the dataset. Additionally, with the large datasets, including thousands of participants, power is much higher than with a smaller study, but the proponents of familywise alpha error ignore the potential increase in power due to sample-size and continue to promote the use of a more stringent alpha-level for multiple comparisons. The lack of flexibility in the application of familywise alpha error corrections appears to lack philosophical support and practical utility.

Another flaw in the familywise alpha issue is that there is also an increased probability of finding a false positive as a result of a researcher conducting more than one study during their career. That is, your probability of committing a Type I error, or even Type II error, increases as you conduct more research. As argued by some statisticians, it would be rather absurd to expect researchers to restrict their alpha levels to increasingly smaller levels every time they conduct another study (e.g., Gelman, Hill, & Yajima, 2012; O’Keefe, 2003). To illustrate the potential absurdity in a progressively restricted alpha level based on the amount of research an individual has conducted, O’Keefe (2003) suggests considering the novice researcher, who may have conducted a handful of studies, as opposed to the seasoned professor, who may have conducted several hundred, or perhaps several thousand. Based on the very same probability argument used to suggest the restriction of alpha levels within one study, alpha levels should be progressively more restrictive for prolific researchers and more liberal for novice researchers.

While increasingly restrictive alpha levels for seasoned researchers is quite clearly an absurd gesture, this is precisely the argument applied to research that uses multiple comparisons with one database. When combined with the absolute lack of awareness about the amount of comparisons drawn by an unknown number of researchers from archival or large, public databases, concerns about familywise alpha become further questionable. Increasing probability
of committing a Type I error, or even a Type II error, is simply a consequence of taking the risk to cast your carefully constructed net into a sea of variables and attempt to extract something meaningful, helpful, or at the very least, interesting. Concerns about familywise alpha error may well be the byproduct of our human obsession with control, particularly with regard to research.

Despite philosophical opposition to the sporadic application of increasingly restrictive alpha levels in one error-rate probability-increasing situation, but not another, the concerns about familywise alpha error were not simply discarded. The risk of Type I and Type II errors were given much consideration. With regard to the current study, a Type I error would mean that the compelling theoretical results reported in previous sections would be mistaken. Alternatively, a Type II error within the current study would appear as results that indicate no significance, where significance actually exists. That is, if the current study had Type II errors and no significant results reported, nothing in the literature on childhood maltreatment and career decision would change. Thus, the risks of both Type I and Type II errors were considered and the risk of Type II error was deemed to be a greater threat, as not finding conceptual support for potential career-related intervention recommendations for victims of trauma was considered a greater loss than the opposite (i.e., finding support when it does not truly exist).

In addition to full consideration of the implications of Type I and Type II errors for the current study, attempts to control sources of random error were taken. Most importantly, comparisons were carefully planned in advance. Hierarchical multiple regression was utilized for moderation analyses, instead of stepwise multiple regression, which leaves more room for random error. Additionally, the number of regression equations were minimized by regressing mediator/ moderator variables in the same set of equations, as opposed to regressing the variables separately. Confidence intervals for regression equations were computed using 10,000
bootstrapped samples, thereby increasing the power of the analyses to accurately identify a significant result. Finally, the sample size of the current study \((n = 227)\) was sufficient to maintain alpha levels at .05 for all comparisons.

The second potential methodological concern involves competition among predictor variables in the explanation of the variance in CDSE. When there is overlap (i.e., correlation) between variables, one predictor or moderator/mediator may essentially obscure the influence of another in the regression equations where multiple variables are present. In simple mediator and moderator regression models (i.e., involving a single predictor and a single mediator/moderator variable), the amount of variance predicted by each variable does not compete with other variables, as there is no shared variance. Thus, in a simple model, attachment style may emerge as a significant moderator, where in a more complex model, such as the ones tested in the current study, the shared variance among variables may potentially obscure the influence of attachment style on the relationship between the main predictors and CDSE. In the models tested in the current study, multiple predictors were included. When multiple predictors or multiple mediator/moderator variables are present in the same model, variables are held constant when testing the relationship between a specific predictor or mediator/moderator variable. As a result, the variance potentially shared between variables is also held constant, thereby leaving less variance to be accounted for a specific variable. When this occurs, a variable in a more complex model may appear non-significant while the same variable in a simple model may appear significant.

One way to resolve the concerns regarding shared variance would be to test the predictor variables separately for mediation and moderation. However, this involves running twice as many regressions, or perhaps more, depending on the variables involved. Increasing the amount of comparisons may be of more conceptual or applied interest but is not statically favored,
because it may allow for increased error. The decision to simplify the regression equations should be made on a case-by-case basis, whereby the individual contributions of variables is of considerable importance, rather than gaining a more realistic perspective of how the variables within a model influence one another. As for the current study, the decision was made to maintain the analyses with all of the variables involved due to the application of a specific model in which all of the variables are included.

Measurement Limitations

The current study employed self-report inventories to represent constructs in the SCCT model. Concerns regarding limitations of measurement are discussed in an effort to improve upon the current research. Primary measurement issues include the aggregation of some variables but not others and the measures of childhood maltreatment.

The predictor variables, but not the mediator/moderator or outcome variables, were aggregate variables comprised of multiple inventories. Both symptoms of trauma and childhood maltreatment were aggregate variables, comprised of several related measures. Symptoms of trauma was the product of the DASS-21, a measure of symptoms related to depression and anxiety, and the PCLC, a measure of PTSD symptoms. These measures were chosen due to the higher prevalence of depression, anxiety and PTSD-related symptoms among survivors of childhood maltreatment (Briere & Scott, 2006; Callahan et al., 2003; Lee & Tolman, 2006; Perry, 2008; Wainrib, 2006). Childhood maltreatment was comprised of three measures, including maternal and paternal MOPS and the CATS. The aforementioned measures were chosen to represent childhood maltreatment in response to the rather narrow measurements of childhood maltreatment in the previous literature. Should the study be replicated, multiple measures should be utilized for all variables, to create more robust measures of each variable and
to allow for the use of more sophisticated modeling techniques, like structural equation modeling.

The primary measure of childhood maltreatment included a few minor issues that limited the use of the scale. While attempts were made to measure indications of childhood maltreatment with a much broader scope than previous research, the CATS did not include any distinct cut-off scores. The lack of cutoff scores meant that t-test comparisons of individuals with and without childhood maltreatment could not be conducted without creating arbitrary cutoff scores. Additionally, without cutoff scores, it was difficult to ascertain the percentage of the current sample that was affected by childhood maltreatment. Should the study be replicated in the future, either an alternative, but equally broad measure, should be employed or cutoff scores for the CATS should be empirically established.

Directions for Future Research

Opportunities for future research based on the current study abound. The results of the current study provided a glimpse into an important link between childhood maltreatment and career decision difficulty. As this is one of very few studies confirming the relationship between interpersonal trauma and career decision factors, it may be of primary importance to replicate the study using similar sample characteristics. Also, a replication of the current study using a sample with more diversity in terms of age, education, SES and race may help to increase the generalizability of the results. More generally, replication of the current study may help to confirm the use of the SCCT model as a framework for understanding the impact of childhood maltreatment on career decision factors.

Alternative mediator and/or moderator variables could be explored in future research. Another learning experience variable of potential interest may include a measure of career-
related self-perceptions, or possible selves. Perhaps a basic skills/abilities inventory could be utilized as a measure of learning experiences because an individual’s perception of their own skills/abilities is likely the product of previous experiences where they learned about themselves in comparison to others. The aforementioned are just a few examples of some alternative mediator/moderator variables that could be cast into the role of learning experiences in the SCCT model. Exploring alternative moderator/mediators may help to explain more of the variance in CDSE, thereby providing more insights into possible interventions aimed at improving the career outcomes of individuals with childhood maltreatment.

Expansion to the remainder of the variables in the SCCT model is another potential avenue for future research. Given the utility of the SCCT model to predict CDSE using variables related to childhood maltreatment, it may be further edifying to explore the prediction of outcome expectations and career choice behaviors. The expansion into the rest of the model could provide additional insights for clinical applications.

Experimental or quasi-experimental research should follow the correlational results found in the current study. The SCCT model has been interpreted into experimental research in previous studies where interpersonal trauma and career decision factors were explored (Chronister & McWhirter, 2004, 2006). However, some adaptations based on the current study should be made. For example, the current study explored childhood maltreatment, not adult interpersonal trauma. Thus, the quasi-experimental group should consist of individuals with childhood maltreatment. Additionally, experimental interventions should consist of some effort to alter symptoms of trauma (i.e., attempting to alleviate symptoms through treatment) or attachment style with a career-related mentor (i.e., fostering conditions for a secure attachment). There may already be established career-mentoring programs where some participants have a
history of childhood maltreatment that could be recruited to participate in a more causally-oriented study.

As mentioned previously, future researchers may consider creating more robust measures of all variables in the model, not just for trauma-related symptoms and childhood maltreatment. When more robust measures of all variables are obtained, more complex statistical techniques can be employed, like structural equation modeling or conditional process modeling. The use of SEM may allow for comparisons of model fit and the exploration of alternative models that may offer more efficient explanations of the relationship between childhood maltreatment and CDSE. In addition, conditional process models could be explored within the SCCT model, allowing for more complex relationships between variables to be understood (i.e., moderated mediation, mediated mediation, and mediated moderation).

The clinical, theoretical, and statistical inferences drawn from the results of the current study are not just intriguing, but also heuristic. Through the use of the SCCT model with both mediation and moderation analyses, a better understanding of the relationship between childhood maltreatment and CDSE has been achieved. Opportunities for future research regarding the intersection of childhood maltreatment and career decision factors were discussed. Perhaps most importantly, ideas for career intervention services for survivors of childhood maltreatment were extrapolated from the results of the current study.
Figure 1. Diagram of hypothesized relationships between SCCT constructs for career choice behavior as proposed by Lent, Brown, & Hackett (1994) with adaptations for the current study.

Note: Shaded constructs were not the focus of the current study.
Figure 2. Diagram of hierarchical regression for moderation with dependent variable learning experiences.
Figure 3. Diagram of hierarchical regression for moderation with dependent variable CDSE.
Figure 4. Diagram of hierarchical regression for moderation with dependent variable anxious attachment with a career-related mentor. * $p < .05$, ** $p < .01$
Avoidant Attachment with a Career-Related Mentor

Block 1 (Control):
Academic classification

Block 2 (Background Factors):
Childhood Maltreatment

Block 3 (Personal Factors):
Trauma-Related Symptoms

Block 4:
Childhood Maltreatment x
Trauma-Related Symptoms

$\beta = 0.10$

$\beta = 0.11$

$\beta = 0.11$

$\beta = -0.04$

*Figure 5. Diagram of hierarchical regression for moderation with dependent variable avoidant attachment with a career-related mentor. *$p < .05$, **$p < .01$
Figure 6. Moderation model of CDSE with main effects and interaction terms in the fourth block of the hierarchical regression. * $p < .05$, ** $p < .01$
Figure 7. Mediation model of SCCT constructs.

Note: Coefficient for direct relationship between childhood maltreatment and CDSE is in parentheses. Significant serial mediation pathway is indicated by bold arrows. * $p < .05$, ** $p < .01$
Table 1

*Descriptive Frequencies for the Sample*

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Table 2

Correlations Among Variables

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<th>4</th>
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<td></td>
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<td>0.50**</td>
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<td>0.16**</td>
<td>0.35**</td>
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<td>-0.31**</td>
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</table>

Note. Class = Current Academic classification; Maltreat. = Childhood Maltreatment; Symptom = Trauma-related Symptoms; Anxious = Anxious Attachment with a Career-Related Mentor; Avoidant = Avoidant Attachment with a Career-Related Mentor; CDSE = Career Decision Self-Efficacy. *p < .05, **p < .01
Table 3

*Descriptive Frequencies for Measures*

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<td>16.86</td>
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*Note.* CATS = Child Abuse and Trauma Scale; MOPS = Measure of Parental Style; PCLC = PTSD Checklist- Civilian; DASS-21 = Depression, Anxiety and Stress Scale- 21 Item; ECR-RS Anx. = Experiences in Close Relationships, Anxious Attachment Subscale; ECR-RS Avd. = Experiences in Close Relationships, Avoidant Attachment Subscale; CDSE-SF = Career Decision Self-Efficacy Scale- Short-Form.
Table 4

Descriptive Frequencies of Measures by Academic Classification

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<th>Mean</th>
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<td>Junior</td>
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<td>82.98</td>
<td>16.62</td>
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<td></td>
<td>Senior</td>
<td>55</td>
<td>79.11</td>
<td>17.13</td>
</tr>
<tr>
<td>MOPS Paternal</td>
<td>First Year</td>
<td>60</td>
<td>22.93</td>
<td>8.52</td>
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<td>Sophomore</td>
<td>49</td>
<td>25.78</td>
<td>9.54</td>
</tr>
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<td>Junior</td>
<td>63</td>
<td>23.98</td>
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<td>8.34</td>
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<td>MOPS Maternal</td>
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<td>63</td>
<td>23.17</td>
<td>7.27</td>
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<td>22.58</td>
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<td>35.93</td>
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<td>39.53</td>
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<td>37.11</td>
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<td>10.80</td>
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<td>1.25</td>
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<td>3.80</td>
<td>1.16</td>
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<td>3.40</td>
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</table>

Note. CATS = Child Abuse and Trauma Scale; MOPS = Measure of Parental Style; PCLC = PTSD Checklist- Civilian; DASS-21 = Depression, Anxiety and Stress Scale- 21 Item; ECR-RS Anxious = Experiences in Close Relationships, Anxious Attachment Subscale; ECR-RS Avoidant = Experiences in Close Relationships, Avoidant Attachment Subscale; CDSE-SF = Career Decision Self-Efficacy Scale- Short-Form.
Table 5

Summary of Hierarchical Regression Analysis for Variables Predicting Anxious Attachment with a Career-Related Mentor

<table>
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<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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<td></td>
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<tr>
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<tr>
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<td>Change in R²</td>
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<td>0.15**</td>
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Note. Variables were mean-centered prior to analyses. Classification = academic classification. Anxious = anxious attachment with a career-related mentor; Avoidant = avoidant attachment with a career-related mentor; Maltreatment/ Malt. = childhood maltreatment; Symptoms/ Sympt. = trauma-related symptoms. *p < .05, **p < .01
Table 6

Summary of Hierarchical Regression Analysis for Variables Predicting Avoidant Attachment with a Career-Related Mentor

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<td>β</td>
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<td>-0.14</td>
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<td>0.04</td>
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<td>0.06</td>
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<tr>
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<td>0.10</td>
<td>0.08</td>
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<td>0.01*</td>
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</table>

Note. Variables were mean-centered prior to analyses. Classification = academic classification. Anxious = anxious attachment with a career-related mentor; Avoidant = avoidant attachment with a career-related mentor; Maltreatment/ Malt. = childhood maltreatment; Symptoms/ Sympt. = trauma-related symptoms. *$p < .05$, **$p < .01$
Table 7

*Summary of Hierarchical Regression Analysis for Variables Predicting CDSE*

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<th>Model 4</th>
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<td>SE B</td>
<td>β</td>
<td>B</td>
<td>SE B</td>
<td>β</td>
<td>B</td>
<td>SE B</td>
<td>β</td>
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<td>0.46</td>
<td>-0.01</td>
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<td>0.74</td>
<td>-0.30**</td>
<td>-3.21</td>
<td>0.75</td>
<td>-0.27**</td>
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<tr>
<td>Malt. x Anxious</td>
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<td></td>
<td></td>
<td></td>
<td>-0.53</td>
<td>0.39</td>
<td>-0.11</td>
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<td>Sympt. x Anxious</td>
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<td>1.56</td>
<td>0.49</td>
<td>0.27**</td>
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<td>Malt. x Avoidant</td>
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<td>0.70</td>
<td>0.38</td>
<td>0.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sympt x Avoidant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.35</td>
<td>0.51</td>
<td>-0.05</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.03**</td>
<td></td>
<td></td>
<td>0.15**</td>
<td></td>
<td></td>
<td>0.24**</td>
<td></td>
<td>0.28*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in $R^2$</td>
<td>0.03**</td>
<td></td>
<td></td>
<td>0.12**</td>
<td></td>
<td></td>
<td>0.10**</td>
<td></td>
<td>0.04*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Variables were mean-centered prior to analyses. Classification = academic classification. Anxious = anxious attachment with a career-related mentor; Avoidant = avoidant attachment with a career-related mentor; Maltreatment/ Malt. = childhood maltreatment; Symptoms/ Sympt. = trauma-related symptoms. *$p < .05$, **$p < .01$
### Table 8

**Summary of Regression Analysis for Mediation of Relationship Between Background Factors and CDSE**

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Symptoms</th>
<th>Anxious</th>
<th>Avoidant</th>
<th>CDSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>SE B</td>
<td>B</td>
<td>SE B</td>
</tr>
<tr>
<td>Classification</td>
<td>-0.13</td>
<td>0.10</td>
<td>-0.08</td>
<td>-0.07</td>
</tr>
<tr>
<td>Maltreatment</td>
<td>0.37</td>
<td>0.04</td>
<td>0.49**</td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(-1.36)</td>
</tr>
<tr>
<td>Symptoms</td>
<td>0.28</td>
<td>0.04</td>
<td>0.41**</td>
<td>-0.03</td>
</tr>
<tr>
<td>Anxious</td>
<td>0.39</td>
<td>0.08</td>
<td>0.35**</td>
<td>-0.94</td>
</tr>
<tr>
<td>Avoidant</td>
<td></td>
<td></td>
<td>-3.51</td>
<td>0.74</td>
</tr>
</tbody>
</table>

| R²           | 0.25 | 0.29 | 0.13 | 0.24 |
| F for change in R² | 36.47** | 29.63** | 8.12** | 14.22** |

*Note.* Variables were mean-centered prior to analyses. Direct relationships are in parentheses. Classification = academic classification; Maltreatment = childhood maltreatment; Symptoms = trauma-related symptoms; Anxious = anxious attachment with a career-related mentor; Avoidant = avoidant attachment with a career-related mentor. *p < .05, **p < .01
Table 9

*Bootstrapped Confidence Intervals for Indirect Effects in Serial Mediation Model.*

<table>
<thead>
<tr>
<th>Pathway</th>
<th>$B$</th>
<th>SE</th>
<th>LLCI</th>
<th>ULCI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maltreatment – Symptoms – CDSE*</td>
<td>-0.84</td>
<td>0.31</td>
<td>-1.50</td>
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<tr>
<td>Maltreatment – Symptoms – Anxiety – CDSE</td>
<td>-0.10</td>
<td>0.12</td>
<td>-0.34</td>
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<tr>
<td>Maltreatment – Symptoms – Avoidance – CDSE</td>
<td>0.04</td>
<td>0.08</td>
<td>-0.11</td>
<td>0.20</td>
</tr>
<tr>
<td>Maltreatment – Symptoms – Anxiety – Avoidance – CDSE*</td>
<td>-0.14</td>
<td>0.06</td>
<td>-0.28</td>
<td>-0.05</td>
</tr>
<tr>
<td>Maltreatment – Anxiety – CDSE</td>
<td>-0.09</td>
<td>0.12</td>
<td>-0.37</td>
<td>0.11</td>
</tr>
<tr>
<td>Maltreatment – Anxiety – Avoidance – CDSE*</td>
<td>-0.13</td>
<td>0.07</td>
<td>-0.30</td>
<td>-0.03</td>
</tr>
<tr>
<td>Maltreatment – Avoidance – CDSE</td>
<td>-0.06</td>
<td>0.13</td>
<td>-0.34</td>
<td>0.19</td>
</tr>
</tbody>
</table>

*Note.* Maltreatment = childhood maltreatment; Symptoms = trauma-related symptoms; Anxious = anxious attachment with a career-related mentor; Avoidant = avoidant attachment with a career-related mentor; LLCI = Lower-Limit Confidence Interval; ULCI = Upper-Limit Confidence Interval. * Denotes significant indirect pathways.
APPENDIX A

SAMPLE RECRUITMENT POSTER
Research Participants Needed!

Who I am: Mae MacIntire, M.S. (UNT Counseling Psychology Doctoral student)

What I’d like to know: How do traumatic childhood experiences and parent-child relationships affect career decisions for college undergraduates?

What is involved: Your time and willingness to complete 45-60min of surveys.

What you get in return: The chance to enter into a drawing for a $50 gift-certificate to the vendor of your choice.

How you can participate:
Contact CareerMentorStudy@Gmail.com or find my study on the SONA system.
APPENDIX B

INFORMED CONSENT
Before agreeing to participate in this research study, it is important that you read and understand the following explanation of the purpose, benefits and risks of the study and how it will be conducted.

**Title of Study:** The Influence of Childhood and Family Relationships on Career Decisions

**Student Investigator:** Mae MacIntire, M.S., University of North Texas (UNT) Department of Psychology. **Supervising Investigator:** Patricia L. Kaminski, PhD.

**Purpose of the Study:** You are being asked to participate in a research study which involves exploring how difficult experiences during childhood affect the career decision process for college students.

**Study Procedures:** You will be asked to answer a series of surveys about your experiences with your family during childhood (including traumatic events), role models, emotions, thoughts and career decisions. Completing these surveys will take 45-60 minutes of your time, as it is important that you read each question carefully.

**Foreseeable Risks:** The potential risk involved in this study is a chance of distress among participants who recall difficult memories of their childhood experiences, which may result in a temporary increase in uncomfortable or painful emotions. This risk will be minimized by providing students with contact information for the campus counseling center (UNT Counseling and Testing: (940) 565-2741), a local agency that specializes in interpersonal violence intervention (Denton County Friends of the Family: 940-387-5131), which has a 24-hour crisis line, a national hotline for survivors of sexual abuse (RAINN: 800-656-4673), and the campus contact information for the investigators (Psychology Department: 940-565-2671).

**Benefits to the Subjects or Others:** We expect the project to benefit you by providing insight regarding the career decision process for college students. With a better understanding of how childhood experiences and role models affect career decisions, career counselors and therapists may be able to be more helpful to college students who are exploring their career options.

**Compensation for Participants:** For your participation in this study, you are eligible for course credit, at the discretion of your instructor. In addition, you may also elect to enter your name into a drawing for a $50 gift certificate to the vendor of your choice.

**Procedures for Maintaining Confidentiality of Research Records:** Your confidentiality will be protected by separating any identifying information from your responses upon submission. Further, research records will be maintained electronically, utilizing the highest security available (i.e., password protection and encryption for any data sent electronically). Your participation in this online survey involves risks to confidentiality similar to a person’s everyday
use of the Internet. The confidentiality of your individual information will be maintained in any publications or presentations regarding this study.

**Questions about the Study:** If you have any questions about the study, you may contact (Mae MacIntire) at (MaeMacIntire@my.unt.edu) or (Patricia Kaminski, PhD) at (kaminski@unt.edu).

**Review for the Protection of Participants:** This research study has been reviewed and approved by the UNT Institutional Review Board (IRB). The UNT IRB can be contacted at (940) 565-3940 with any questions regarding the rights of research subjects.

**Research Participants’ Rights:**

Your participation in the survey confirms that you have read all of the above and that you agree to all of the following:

- You have had an opportunity to contact the researcher with any questions about the study. You have been informed of the possible benefits and the potential risks of the study.
- You understand that you do not have to take part in this study, and your refusal to participate or your decision to withdraw will involve no penalty or loss of rights or benefits. The study personnel may choose to stop your participation at any time.
- Your decision whether to participate or to withdraw from the study will have no effect on your grade or standing in your courses.
- You understand why the study is being conducted and how it will be performed.
- You understand your rights as a research participant and you voluntarily consent to participate in this study.
- You understand you may print a copy of this form for your records.
APPENDIX C

DEMOGRAPHIC SURVEY
Demographic Questionnaire

Please answer the following items:

1. Age: __ 18-20 __ 21-22 __ 23-25

2. Ethnicity:
   ___ Asian American
   ___ African-American/ Black
   ___ Caucasian American/ White
   ___ Latin-American/ Hispanic
   ___ Native-American
   ___ Other ____________________

3. Gender Identity:
   ___ Male
   ___ Female
   ___ Male to female transgender
   ___ Female to male transgender
   ___ Other ____________________

4. Which Sexual Orientation do you most identify with?
   ___ Homosexual/Gay or Lesbian
   ___ Bisexual
   ___ Questioning
   ___ Heterosexual/ “Straight”

5. College Classification:   First Year   Sophomore   Junior   Senior

6. Have you chosen a College Major?   YES   NO
If yes, what is your College Major? ______________________________

7. How many jobs have you held? __________________

8. How long have you been employed? ________________

9. How many hours per week do you work?

<table>
<thead>
<tr>
<th></th>
<th>10 or fewer</th>
<th>10-20hrs</th>
<th>20-30hrs</th>
<th>30-40hrs</th>
<th>40 or more hrs</th>
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</thead>
<tbody>
<tr>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
<td></td>
</tr>
</tbody>
</table>

10. Have you ever attended career counseling?

11. Have you ever attended personal counseling/therapy?

12. What is the name of your current undergraduate institution?

___ University of North Texas

___ Other _________________________
APPENDIX D

DEBREIFING STATEMENT
This study you have just completed was designed to investigate the role of childhood experiences on the career decision processes. We are particularly interested in how early relationships with parents/caregivers may impact career decision factors (career decision self-efficacy and career decision outcome expectations).

Thank you for your participation and for not discussing the contents of the study with other students. If you have any questions about the study, please feel free to contact Mae MacIntire at maemacintire@my.unt.edu.

As a result of answering some of these questions, you may be thinking more about your childhood, your parents/caregivers, or your career. If your thoughts are causing you discomfort, concern or emotional upset, please contact the appropriate resource listed below. The following resources are available to individuals in the Denton, TX area.

**The University of North Texas Student Counseling Center**
If you are a student at the University of North Texas and you experiencing difficult emotional experiences, recurrent thoughts or memories related to past trauma, or concerns about your well-being, please contact the UNT Counseling and Testing. To contact the UNT Student Counseling Center, please call (940) 565-2741 or go to Suite 311 in Chestnut Hall between 8am-5pm Monday-Friday.

**Denton County Friends of the Family**
If you have experienced extensive abuse/violence during your childhood, adolescence or adulthood, please contact Denton County Friends of the Family where you can attend groups and/or individual therapy focused on trauma recovery. In addition, Denton County Friends of the Family offers advocacy for individuals currently dealing with abusive relationships. To contact Denton County Friends of the Family, please call 940-387-5131 between 8am-5pm Monday-Friday OR the 24 hour Crisis Line 940-382-7273.

**Rape Abuse and Incest National Network (RAINN)**
Another option for support and/or information on sexual assault, including incest, RAINN maintains a website and hotline. The website can be found at www.rainn.org. RAINN maintains an informative website, including a 24-hour National Sexual Assault Hotline (800-656-4673).

**Urgent Care**
Please go to the nearest hospital emergency room or dial 911 if you are in more urgent need of care.
Gift-Card Drawing

If you would like to be entered into the drawing for a $50 gift card, please CLICK HERE TO give us your email address and a phone number (routes to a separate page with link) Thank you for your participation!
REFERENCES


