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Intervening Factors in the Impact of Child Maltreatment on Marital Satisfaction in Older Age

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INTERVENING FACTORS IN THE IMPACT OF CHILD MALTREATMENT ON MARITAL

SATISFACTION IN OLDER AGE

by

VIVIAN E. PIAZZA

Under the Direction of Frank J. Floyd, Ph.D. and Lisa Armistead, Ph.D.

ABSTRACT

The present study investigated the effects of childhood abuse that occurred before the age of 18 on levels of marital satisfaction in older age. The study examined marital satisfaction in a group of Caucasian older married individuals with a mean age of 65.4 years who retrospectively endorsed a history of childhood physical, verbal and/or sexual abuse. Although previous studies examined the relationship of child maltreatment on young and middle-age adult relationship satisfaction, the study addressed a gap in the literature in that it examined the impact of child maltreatment on marital satisfaction in older age. Marital satisfaction in older age is particularly important to understand due to the health and psychological benefits derived from being in a satisfying marriage in older age (Booth & Johnson, 1994; Dush, Taylor, & Kroeger, 2008;

Proulx, Helms, & Buehler, 2007), which is a time when health may become fragile. Furthermore, this study expands the current literature by explicating plausible mediators in the association between child maltreatment and late-life marital satisfaction. In particular, based on life course theory, the study examined specific life course risks (i.e., early marriage, early childbirth, and multiple divorces) and adult individual characteristics (i.e., avoidance coping and depression) as plausible mediators in the association between child abuse and later life marital satisfaction. The study examined men and women separately and investigated the effect of the severity of abuse on relationship functioning. The study used Structural Equation Modeling to analyze the data and tested all relationships between abuse, each mediator, and marital satisfaction. Results demonstrate that child maltreatment is negatively associated with late life marital satisfaction and that mid-life depression mediates that association for both men and women. Additionally, modification indices suggested that avoidance coping may influence late life marital satisfaction through a connection with depression and that coping by wishful thinking may be relatively more harmful for martial satisfaction than other forms of cognitive and behavioral avoidance coping. Findings suggest that treating depression in mid-life may be a feasible route to help individuals who have a history of early childhood abuse to have satisfying and protective relationships later in life.

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MARITAL SATISFACTION IN OLDER AGE

by

VIVIAN E. PIAZZA

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1   INTRODUCTION

Child maltreatment is a serious social, legal, public health, and public policy issue in the U.S. The true prevalence of childhood maltreatment is difficult to discern. A report from the National Child Abuse and Neglect Data System for 2009 cited 3.3 million referrals that involved the alleged maltreatment of an estimated 6 million children (U.S. Department of Health and Human Services, 2010). Of those referrals, approximately 2 million reports were investigated and roughly 500,000 reports were substantiated to involve one or more victims of maltreatment (U.S. Department of Health and Human Services, 2010). However, because of the lack of a clear definition of child maltreatment and because many acts of child abuse are not reported, the identified rates of childhood maltreatment are likely underestimates. It is clear that childhood maltreatment is a legacy for millions of Americans.

Childhood abuse is an important concern because even after the abuse ends the effects on individual functioning can be long lasting and can include health issues, somatic symptoms, and negative psychological consequences. For example, the experience of various forms of childhood maltreatment is linked to chronic pain syndromes (Latthe, Mignini, Gray, Hills, & Khan, 2006), depression (Browne & Finkelhor, 1986; Thomas, DiLillo, Walsh, & Polusny, 2011), anxiety disorders (Levitan, Rector, Sheldon, & Goering, 2003), post traumatic stress symptoms (Widom, 1999), suicidal behavior (Dube, et al., 2005), and self-injurious behavior (Klonsky & Moyer, 2008) in adulthood.

One of the most widespread and enduring consequences of childhood maltreatment is difficulty with relationships. Interpersonal problems often start as early as childhood and can continue into adulthood. For example, children with a history of physical abuse and emotional neglect are less popular with their peers and more aggressive in their interpersonal relationships

than children who have not experienced abuse (Anthonysamy & Zimmer-Gembeck, 2007; Lev-Wiesel & Sternberg, 2012). Children with a history of neglect, physical, and/or sexual abuse encounter more peer rejection and less peer acceptance than children without a history of abuse (Jungmeen & Cicchetti, 2010). Difficulty with interpersonal relationships is also demonstrated in early dating relationships. For example, a history of childhood emotional abuse is associated with poor relationship adjustment for college-aged couples in heterosexual dating relationships (Riggs, Cusimano, & Benson, 2011). To date, however, little research examines relationship consequences later in the life course, beyond adulthood. Very few studies examine the association between childhood abuse and relationship outcomes in which older adults are included in the sample. Research showing that child abuse places one at an increased risk for difficulties in early adult relationships suggests that these difficulties set the stage for relationships and marital problems throughout the life course. Thus, the purpose of the present investigation is to evaluate the consequences of child abuse for aging adults, and to identify important early life transitions and other mediating factors related to abuse that account for later marital difficulties.

Marital satisfaction in older age is important to understand because the cohort of individuals who are 65 years and older is increasing at one of the fastest rates (Gagnon, Hersen, Kabacoff, & Van Hasselt, 1999). Likewise, marital dysfunction is linked to unfavorable outcomes, whereas marital satisfaction is consistently linked to advantageous individual outcomes that are critical in older age. For instance, marital dissatisfaction is associated with poor physical health (Booth & Johnson, 1994), which is detrimental for older individuals because physical health is often fragile at this time of life. Hence, poor marital quality could serve to compound the effects of aging on health, causing older individuals with low marital

satisfaction to be especially vulnerable to ill health. A satisfying marriage may serve as a buffer

between stress and negative individual functioning, such as poor psychological health, through

the social support that a fulfilling marriage provides (Pearlin & Johnson, 1977). Spousal support

is important across all ages. However, the support of a spouse seems relatively more important in

old age than when one is younger because other social connections tend to narrow at this

developmental period (Gagnon, et al., 1999), which places increased importance on the marital

relationship for support as the couple ages.

Trauma's negative effects may be exacerbated in older age. Research suggests that

common psychological symptoms that are associated with abuse may intensify later in life due to

the compounding experience of other life stressors that tend to occur at this time. For example,

studies of Vietnam veterans show that symptoms associated with posttraumatic stress disorder

and general psychological distress can remain dormant, or at least manageable, for years while

the individual is employed. However, psychological distress can increase when the veteran

retires (Schnurr, Lunney, Sengupta, & Spiro, 2005). It is hypothesized that the increase is

psychological symptoms after retirement is because the retirement stage of life is often less

structured. During this time the veteran also may be coping with other changes that are

associated with retirement, such as a decrease in task demands, decrease in work-related social

support, and a role-transition. In addition, the veteran may be simultaneously coping with

relatively more health issues. Because studies have suggested that symptoms associated with the

experience of early life trauma may increase later in life, more research is needed on this age

cohort to understand the processes involved in this phenomenon. If a marriage that is high in

satisfaction may provide a buffer to the effects of age on health and on increased distress

associated with a limited social support network, it is likely that a satisfying marriage may also

decrease one's vulnerability to symptoms worsening during this time in the life course. As such, marital satisfaction prior to retirement age may be an important point of intervention in order to support the health and functioning of individuals who have a history of traumatic experiences.

The present investigation draws upon several theories as well as empirical studies to evaluate mediating mechanisms that may explain how the experience of childhood abuse can account for later marital difficulties. The study examines certain life course risks, such as early marriage, early childbirth, and multiple divorces, along with adult characteristics, such as the role of avoidant coping and depression, as plausible mediators in the relationship between early abuse and marital satisfaction in older adulthood. Understanding developmental patterns helps to identify areas on which to focus early marital interventions in order to help individuals who have experienced childhood abuse achieve healthier and more satisfying intimate relationships throughout adulthood and into older age.

1.1 Theoretical Notions Related to the Association Between Child Abuse, Mediators, and Late Life Marital Satisfaction

The mechanisms through which early childhood events can continue to affect an individual across multiple decades are complex. However, there are several theories that attempt to explain how the experience of early psychologically stressful events, such as child abuse, may continue to have an effect on an individual across the life span. One compelling model, the "biological embedding" model, explains the link between psychological stress in childhood and chronic disease in adulthood and, in doing so, also describes a possible pathway between childhood adversity and later adult relationship difficulties (Miller, Chen, & Parker, 2011). The model suggests that psychological stress that affects an individual during times of vulnerable developmental phases, such as childhood, sets the stage for how the body will function in the

future (Miller, et al., 2011). First, this process occurs on a cellular level. That is, stress alters how cells respond to the environment and stress becomes "embedded" in the immune cells. When the process occurs, the inflammatory response of the cells becomes dysregulated, which promotes a proinflammatory tendency in the body. This tendency sets the stage for the development of stress-related diseases such as diabetes, hypertension, and heart disease. Second, the model proposes that an individual's behavioral responses associated with childhood stress tend to heighten inflammation in the body. For example, when one experiences childhood adversity, especially interpersonally stressful events such as abuse, hypervigilance to environmental threats and a lack of trust in relationships (Miller, et al., 2011) are often associated responses. These tendencies can lead to suspiciousness and misperception of social cues in consonance with the individual's relational fears. Additionally, these difficulties tend to increase the risk for conflictual, chaotic, and rejecting relationships while diminishing the likelihood of having good and stable relationships. The negative social expectancies that the individual holds can be reinforced by the situation. Childhood psychological stress can also lead to self-regulation difficulties, which are linked to engaging in unhealthy behaviors, such as alcohol abuse. The synergistic association of negative social relationships and engaging in unhealthy behaviors serve to exacerbate inflammation in the body (Miller, et al., 2011) causing the cascade of harmful cellular, behavioral, and social events to intensify.

Among the stress-related psychological mechanisms, depression is a key factor. Specifically, depression is an outcome of chronic inflammation (Raison, Capuron, & Miller, 2006) and can both precipitate and be an outcome of interpersonal problems (Bookwala & Jacobs, 2004; Whisman, 2001; Whitton & Whisman, 2010). In this way, research suggests that depression compounds the proinflammatory response that is initiated by early childhood

psychological stressors (Danese, et al., 2008). Depression may mediate the relationship between early adverse experiences and later adult functioning by maintaining the interpersonal problems that are often a result of childhood abuse through depressive cognitions and behaviors that are associated with depression, such as isolation. Thus, depression may be an important psychological factor that maintains the relationship difficulties that are related to early abusive experiences by influencing physiological and behavioral responses that are associated with interpersonal problems that may persist across the life-span.

Biological embedding theory and theories of emotion regulation also conceptualize coping as a component of the process by which abuse continues to affect functioning across the life course. Difficulty regulating emotions is a common outcome of early childhood abuse because emotion regulation problems develop from growing up in the type of emotionally invalidating environment that is characteristic of abusive parents (Linehan, 1993). Invalidating parents may give conflicting messages about the expression of extreme emotions - they may intermittently reinforce extreme emotions while also treating emotional expression as inappropriate. As a result, a child may fail to develop adaptive ways to express emotions or effective ways to regulate emotions. Instead, as children they may avoid strong emotions through suppression, and as adults, they may use cognitive avoidance or avoidant behaviors such as substance use (Amstadter, 2008). However, this strategy often has an unintended rebound effect in that avoidance of negative emotion typically increases distress instead of decreasing it (Amstadter, 2008). The cycle of the experience of intense emotions (especially in interpersonal relationships) and an effort to suppress the emotion, leads to an increase in the undesired emotion. This situation frequently leads to an outburst of the emotion. An emotional outburst in the context of an interpersonal relationship is often associated with relationship conflict. The

pattern can reinforce hypervigilance and the unhelpful beliefs that the person who experienced childhood abuse may have about others in the absence of corrective interpersonal experiences and can continue to negatively affect subsequent relationships. Thus, theories of emotion regulation and the biological embedding theory help to explain the link between child abuse, the use of avoidant coping strategies, depression, and later relationship problems.

In addition to these psychological responses, certain life course risks also likely mediate the association between abuse and later marital satisfaction. Life course theory, which was developed by Elder (1998) among others, describes how early life events may impact an individual later in life. It extends the biological embedding model by detailing another type of behavioral response to childhood stress. According to the theory, development is a lifelong process, and childhood experiences have long-term consequences on development. In this regard, patterns of functioning in older age and later life experiences are embedded in previous events, transitions, and life stages that are part of an individual's life course trajectory. Notably, life course theory proposes that early childhood experiences may influence later life functioning in two primary ways. First, they may have prolonged direct effects on functioning. An example of a direct effect is the association of early childhood abuse with a propensity to lack trust in others, expect negative interpersonal outcomes, and experience high levels of perceived threat (Miller, et al., 2011) in relationships that may last throughout the life course. Therefore, relationships can be stressful and unfulfilling, rendering one vulnerable to isolation and depression throughout life. Second, life course theory describes mechanisms through which early life events may affect subsequent life transitions, which may affect functioning later in life. For example, an individual who experienced childhood abuse may marry younger in order to escape an adverse family environment (Amato, et al., 2008). The young couple may experience stress. For example, early

marriage is associated with early childbirth and early childbirth is also associated with poverty (K.A. Moore, et al., 1993). Early marriage and childbirth often disrupt school (Haggstrom, Blaschke, Kanouse, Lisowski, & Morrison, 1981) resulting in young parents often completing less school than those who delay childbirth, which can affect one's occupational trajectory and subsequently one's socioeconomic status as an adult (Teti & Lamb, 1989). The combination of the financial stressors and the interpersonal stressors that are associated with early abuse may increase the likelihood of divorce for a young couple, as early marriage and early childbirth is associated with marital instability (Taylor, 2009; Teti & Lamb, 1989). This example illustrates that life course theory emphasizes the timing of life transitions (Neugarten, 1976), such as marriage. There are adverse effects for "off-timed" (i.e., early compared to the cultural norm) transitions that may decrease the chances of success in a particular life stage. The theory also emphasizes heterogeneity in life course processes, such that life events may have different impacts on different individuals. Both of these mechanisms, direct effects on psychological adjustment and impacts on life course timing, are relevant to understanding how early abuse may continue to impact an individual's relationship satisfaction 50 or more years after the event occurred. The maturity theory also explains the impact of early life course timing for major marital and family transitions, including early marriage, early childbirth, and divorce. According to this theory, when one marries early before reaching psychological maturity, the relationship may not be based on certain adult traits that have yet to emerge (Lehrer, 2008). When individual personality characteristics develop during the marriage, the couple may no longer be a good match and, as a result, may eventually divorce. Likewise, as early marriage and early childbirth are "off-timed" events, they may affect an individual by forcing him or her to take on an adult role relatively earlier in the life course (Arnett, 2000). Thus, taken together, life course theory

and the maturity theory speculate about the theoretical link among the life course risks examined in this study as well as the association between these risks and late life marital satisfaction.

1.2   Marital Adjustment Across the Life Course

The past few decades of research brought changes in the conceptualization of marital satisfaction across the life span. Early longitudinal research on marital satisfaction initially found a decline in relationship satisfaction over the first years of marriage (Pineo, 1961). This finding led researchers to assume that marital satisfaction steadily declined with age. Further cross-sectional research found a curvilinear U-shaped association between the duration of marriage and marital happiness (S. A. Anderson, Russell, & Schumm, 1983), which led investigators to assume that marital happiness improved later in life. However, Glenn (1998) suggested that the cross sectional results could be attributed to cohort effects. Glenn argued that the increase in divorce rates in the 1960s and 1970s could partially explain the mid-life up-turn in marital happiness, as the unhappy marriages ended in divorce and therefore were dropped from participant samples.

More recent longitudinal research on the life course of marital quality suggests that multiple trajectories of marital happiness exist across couples that remain intact into older age, and that various factors can predict the different patterns of marital satisfaction across the life span. In particular, the Marital Instability over the Life Course dataset (J. R. Anderson, Van Ryzin, & Doherty, 2010) was used to examine factors involved in various trajectories of marital quality over the life course. The data set included over six waves of data collection between 1980 and 2000 (Booth, Amato, Rogers, & Johnson, 2001). The original sample consisted of 2033 married individuals between the ages of 18 and 55 who were primarily in their first marriage. Researchers examined participants who remained continuously married during the 20 years of

data collection. First, results demonstrated five distinct trajectory groups of couples with regard to marital satisfaction over time. The most common trajectory was high and stable levels of marital happiness over time. Other trajectories included consistently low levels of happiness over time; low happiness that declined over time; and a curvilinear U-shaped trajectory of high happiness, a decline, and a subsequent increase in happiness towards the later years. Next, researchers identified variables that distinguished group membership in the different trajectories. Although economic problems were implicated as a factor in the trajectories, the main variable related to the trajectories was the number of marital problems. Marital problems included respondent's perception of marital problems due to their spouse's behavioral tendencies, such as being unfaithful or using alcohol or drugs, and their personality characteristics, such as being jealous or having feelings hurt easily.

In light of the findings about multiple pathways of marital satisfaction and factors involved in the trajectories, recent research has focus more on understanding the individual difference factors associated with various trajectories of marital quality than prior research on marital satisfaction across the life course. In a comprehensive review of decades of research and theory investigating the premarital factors that predict marital quality and breakup, Holman and colleagues (2001) highlighted two factors that shaped the present study. First, consistent with life course theory, Holman, et. al, (2001) found an association between certain childhood stressors and marital quality. Specifically, one's parents' marital quality during the child's earlier years was positively associated with the child's marital quality in adulthood and parental divorce predicted poorer marital quality and less stability compared to those whose parents' marriage remained intact. Furthermore, negative parent-child interactions were associated with poor adult relationship outcomes. Second, adult individual characteristics predicted the quality and stability

of the couple's marriage. In particular, depression was negatively associated with marital quality. Findings suggest that early life experiences, early relationship experiences, and the individual attributes that one brings to the marriage are related to the quality of one's later marital relationship.

Considering the long-term impact that child maltreatment can have on relationships, the protective benefits that marital satisfaction later in life can provide, and research suggesting an increase in psychological distress associated with trauma after retirement age, the nature and development of marital satisfaction in older age for those who have experienced child abuse is important to understand. Collectively, the theoretical notions on which this study is based suggest that the experience of child abuse may cause physiological changes that are associated with certain tendencies that are detrimental to interpersonal relationships. The relationship difficulties that are associated with early abuse can serve to reinforce one's negative perceptions and expectations of others, which can form as a result of early interpersonal maltreatment. Further, these early stressful experiences may be associated with the timing of life transitions and can alter one's response to later stressful experiences. Hence, the timing of life transitions and certain adult characteristics may explain the association between early child abuse and later life marital satisfaction.

1.3   Empirical Research on Childhood Abuse and Adult Relationship Functioning

Research on the effects of child maltreatment on later relationship outcomes examines the association in two ways. First, research investigates the direct effect of child maltreatment and various adult relationship outcomes, such as low relationship satisfaction and relationship dissolution. Second, studies attempt to delineate intervening variables that may mediate the association between childhood abuse and relationship functioning.

1.4   Association between Childhood Abuse and Interpersonal Relationships

Research demonstrates an association between child maltreatment and low levels of relationship satisfaction and poor quality of interpersonal relationships in adulthood. Much of the research focuses on women as opposed to men and on childhood sexual abuse in particular, as opposed to other forms of child maltreatment. For example, when compared to women without a history of child sexual abuse, women between 18 and 41 years of age who experienced child sexual abuse and who were in a committed relationship for at least six months reported lower levels of relationship satisfaction (Watson & Halford, 2010). Similarly, Whisman (2006) used data from the National Comorbidity Study (Kessler, 1994) to examine marital satisfaction in a group of women whose mean age was 36 years and who had been married for an average of 11.5 years. Results demonstrated an association between childhood sexual abuse and lower levels of marital satisfaction, even when controlling for the co-occurrence of sexual trauma with other forms of trauma in childhood (Whisman, 2006). Other studies corroborated the relationship between childhood sexual abuse and poor relationship quality for both men and women in dating relationships (DiLillo, Lewis, & Di Loreto-Colgan, 2007), and men and women in married adult relationships (Dube, et al., 2005).

Although little research examines the experience of abuse as it relates to relationship dysfunction specifically in old age, suggestive evidence comes from a study that examined the effects of childhood sexual abuse on later relationship outcomes in women aged 17-79 years (Fleming, Mullen, Sibthorpe, & Bammer, 1999). This study demonstrated that women with a history of childhood sexual abuse had lower adult relationship satisfaction when compared to women without a history of sexual abuse. Additionally, the women with abuse histories also had other relationship problems to a greater extent than women without abuse histories. Specifically,

women who were sexually abused as children were two times as likely as others to report current sexual problems, and they perceived their partners as significantly less caring. Furthermore, women who were sexually abused were more likely to be divorced or separated from their partner and to have a history of multiple marriages, which are likely indicators of relationship problems, than women without a history of abuse. Moreover, the study controlled for the possible confounding effects of a large number of adverse experiences in childhood, including social isolation, lack of someone in whom to confide, lack of a caring female adult, physical abuse, death of a mother, mother's physical and psychological health, having a parent who had alcoholism, and having a father reported as low in care and high in control. Even when controlling for these factors, child sexual abuse remained a significant predictor of relationship outcomes including relationship dissatisfaction, sexual problems, and perceiving their partner as low in care. Thus, the findings suggest that although many adverse childhood events are associated with later adult relationship dysfunction, childhood sexual abuse may be a specific childhood stressor that contributes to later relationship difficulties.

Less research focuses on the effects of other forms of childhood trauma, such as physical abuse and emotional abuse, on relationship quality. However, existing research generally demonstrates detrimental effects of physical and emotional abuse in childhood on relationship outcomes. For example, emotional abuse in childhood predicted lower dyadic adjustment scores in a group of college students who had been dating their partner for at least five months (Riggs & Kaminski, 2010). Similarly, a study that examined childhood psychological abuse in college-aged men and women showed that individuals who experienced childhood psychological abuse were at an increased risk for experiencing adult relationship problems, such as intimate partner violence (Crawford & Wright, 2007). Other studies grouped all participants who experienced any

form of child maltreatment, irrespective of the type of abuse experienced, and examined the effects of abuse. For example, a study that investigated male and female survivors of childhood physical and sexual abuse and neglect found that individuals with a history of these types of abuse reported more marital dysfunction than individuals who had not experienced abuse (Colman & Widom, 2004). Therefore, child abuse in general, often irrespective of the type of abuse experienced, can negatively affect adult relationships.

1.5   Association between Child Abuse, Potential Mediators and Marital Satisfaction

Studies of the direct effects of child abuse yield limited information to inform effective intervention. Therefore, understanding the mechanisms through which abuse affects adult relationships is essential in order to inform treatment and support satisfying relationships for individuals with a history of abuse.

Life course risks. Research evidence supports the life course theory notion of cascading causative mechanisms. One life course risk that may be related to abuse and marital satisfaction is early marriage. Although little research examines child maltreatment specifically as a precursor of early marriage, research linking other childhood stress to early marriage suggests an association between childhood abuse and early marriage. For example, individuals who as children who lived with a parent who divorced and remarried and whose remarital relationship was high in distress married earlier than those who experienced less stressful remarital relationships (Amato & Kane, 2011). These results are consistent with an escape from the stress hypothesis. That is, children from stressful home circumstances may be motivated to leave the home earlier by marrying relatively earlier than children from less stressful family environments to escape from the stressful situation. Consistent with this notion, in an investigation of women, Amato, et al. (2008) found that adolescent girls who had weak emotional bonds with their

parents were more likely to both marry early and have children sooner after their marriage than women with stronger bonds to their parents. Assuming that the emotional ties of those children who experienced child abuse may be fragile, results suggest that child abuse may be an impetus for early departure from the family home through marriage. The association between child abuse and early marriage may be stronger for women than men given the greater availability of other means of leaving the home that were more common for men than women of older generations, such as joining the military or going away for college (Shanahan, 2000).

Although marrying early may have the positive benefit of escaping an abusive family situation, research demonstrates that early marriage is associated with adverse relationship outcomes for both men and women. For example, studies consistently show that the marriages of those who wed younger are less stable than those who delay marriage (Lehrer, 2008; Moore & Waite, 1981; Teachman, 2002). Moore and Waite (1981) followed women between the ages of 14 and 24 who were in their first marriage in 1968 when the investigators began data collection. Their investigation followed the women for four years to understand factors related to relationship dissolution. Consistent with previous findings on the detrimental effects of early marriage on relationships, results demonstrated that entering into matrimony at age 18 or less increased the chances of relationship dissolution by 8 to 12 percentage points when compared to those who waited to marry until they were 21 years or older (Moore & Waite, 1981). Other research shows similar associations for men as well. Specifically, when looking at the association of marital age for both men and women and divorce rates, Teachman (2002) found a negative relationship between age at marriage and risk of divorce. That is, as marital age increased, the risk of marital dissolution decreased. Thus, although the link between abuse and

early marriage may be stronger for women than men, early marriage is associated with harmful relationship outcomes for both men and women.

Abuse history is also linked to early childbirth. The majority of the research that links child abuse and early childbirth examines childhood sexual abuse, as opposed to other forms of abuse, for women. Comparisons between women with and without a history of sexual abuse reveal that women who report sexual abuse are more likely to engage in sexual behaviors that can lead to early childbirth. For example, women with a history of childhood sexual abuse were more likely to engage in voluntary sexual intercourse at a younger age, less likely to use effective methods of birth control, and were generally younger at the birth of their first child (Noll, Trickett, & Putnam, 2003). Subsequently, women who were sexually abused as children also were more likely to have experienced childbirth in their teens.

Although the link between child abuse and early childbirth may be particularly salient for women, early childbirth is linked to relationship problems for both men and women. A study examined the association of early marriage to family formation patterns using data from the Wisconsin Longitudinal Study, which is the data set from which the current sample is derived. The researcher investigated this association while controlling for risk factors including family of origin factors (i.e., family SES, mother's and father' education, father's occupational prestige, family income) and individual factors (participant's IQ) at two time points – when respondents were around the age of 36 and then again in their 50s (Taylor, 2009). Consistent with prior research, the author used 20 years old as the cutoff age to distinguish between adolescent and adult parents. Results demonstrated that at both time points, when participants were around the age of 36 and 50, those participants who were former adolescent parents were just as likely to be currently married as their counterparts, but they were more likely to have married younger and

less likely to still be married to their first spouse (Taylor, 2009). These associations were the same for both men and women. Therefore, assuming a link between relationship problems and divorce, results suggest that early childbirth may be associated with early relationship dysfunction.

Research identifies a pathway from childhood abuse to later relationship outcomes through engaging in multiple relationships for both men and women. For example, the number of sexual partners that an individual reports, which can be assumed to be an indicator of multiple relationships, intervened in the path from child sexual abuse to later adult relationship satisfaction. Specifically, the number of cohabitating/marital relationships as a young adult partially mediated the relationship between childhood sexual abuse and adult relationship satisfaction for both men and women (Friesen, Woodward, Horwood, & Fergusson, 2010). Results suggest that engaging in multiple marriages may be a life-course risk factor related to the experience of child abuse, particularly child sexual abuse, and is related to low levels of future relationship satisfaction for men and women.

Thus, multiple remarriages may be another life course risk for later marital distress, with research suggesting an important distinction between those who remarry once as opposed to those who have a history of multiple remarriages. In their review of research on remarital quality, Falke and Larson (2007) suggest that multiple remarriages may be associated with certain personal traits as well as psychological health traits that are inconsistent with high remarital quality. For example, individuals with multiple remarriages are more likely to demonstrate avoidant attachment styles and are more likely to have anxiety and severe levels of distress than those with one divorce or no divorces (Brody, Neubaum, & Forehand, 1988). Therefore, although multiple marriages may not be a risk in and of itself, multiple marriages may

be indicative of underlying interpersonal qualities associated with relationships that are problematic and more likely to dissolve.

   Adult individual characteristics. Depression and coping processes are identified as mediators in the association between early abuse experiences and early adult relationship functioning. Walker, Holman, and Busby (2009) examined factors that were identified as predicting marital outcomes in an earlier study (Holman, et. al., 2001), and evaluated the variables as mediators of the association between stressful childhood experiences and adult relationship quality. Walker and colleagues (2009) hypothesized that individual adult characteristics and attitudes as well as features of the interaction process of couples mediated the association between multiple adverse childhood events, including childhood sexual abuse, and relationship quality in adulthood. The sample included men and women, with a mean age of 35 years, who were in married or cohabitating relationships. The authors found a small direct effect of childhood abuse on adult relationship quality such that, as expected, those individuals who experienced abuse reported lower relationship quality than those who did not have a history of abuse. The authors also identified two factors that partially mediated the link between childhood events and later relationship quality that are relevant for the current study. First, adult individual factors, including an individual's perception about the negative impact of the childhood experiences and adult level of depression, partially mediated the association. Second, emotional flooding, defined as difficulty with affect regulation during conflict with one's partner, partially mediated the relationship between childhood events and later relationship quality. Thus, to the extent that emotion regulation difficulty is related to avoidant coping as suggested by emotion regulation theories, results emphasized the role that individual factors such as depression and

coping may have in explaining at least some of the relationship between stressful childhood experiences and relationship quality.

Research suggests that depression is one of the most common outcomes of child abuse for women (Browne & Finkelhor, 1986). Although the evidence is mixed for men, some studies also suggest that depression is more common in men with a history of abuse than in men without a history of abuse (Dhaliwal, Gauzas, Antonowicz, & Ross, 1996). As such, research has examined depression, as well as other types of psychological distress as mediators in the association between child abuse and later adult relationship functioning. For example, in a study of men and women in newlywed couples, childhood emotional maltreatment and marital satisfaction was fully mediated by psychological distress, hostility, and depression (Perry, DiLillo, & Peugh, 2007). Likewise, in study of male and female undergraduates (Becker-Lausen, Sanders, & Chinsky, 1995) depression mediated the association between child abuse and relationship difficulties for both men and women. Thus, individuals who have a history of abuse may experience psychological distress that could account for interpersonal problems for the individual.

As suggested in the Walker, Holman, and Busby (2009) study of predictors of marital quality and dissolution, avoidant coping is implicated as a mediator in the association between child abuse and later adult psychosocial functioning. Research demonstrates that the use of avoidance coping is common in individual who have experienced abuse (Griffing, et al., 2006; Spaccarelli & Fuchs, 1997) and avoidance coping is generally linked to negative relationship adjustment (Brand & Alexander, 2003; Coffey, Leitenberg, Henning, Turner, & Bennett, 1996). Accordingly, a cross-sectional study of college age men and women examined coping as a mediator between child abuse and psychological adjustment (Runtz & Schallow, 1997). The

study only investigated participants who reported a history of sexual and/or physical abuse and examined severity of abuse as the predictor variable. Participants were asked how they coped presently with their childhood abuse experiences. Positive, presumably effective coping strategies included expressing one's emotions to supportive figures, taking action to improve the quality of one's life, and attempting to make meaning of the abuse experience. Negative, ineffective coping strategies included self-destructive behaviors, such as substance use, and avoidance coping in the form of ignoring thoughts and feelings related to the abuse or situations that reminded one of the abuse, and efforts to distract oneself. The outcome variable was adult psychological adjustment, which included measures of general psychological distress and self-esteem. First, results demonstrated that the severity of both childhood physical abuse and childhood sexual abuse was linked to the use of negative coping strategies to about the same extent for both men and women. Second, as expected, positive coping was associated with positive psychosocial functioning and negative coping with poor psychosocial functioning. Lastly, coping partially mediated the effects of the severity of child abuse on adult psychological adjustment. Thus, results suggest that negative forms of coping, such as the use of avoidance coping, partly explains the link between early childhood abusive experiences and later adult psychosocial outcomes for both men and women.

Although there is little research on the association between avoidance coping and relationship outcomes, some research proposes a link. One suggestive study found an association between the use of avoidance coping and a greater fear of intimacy in relationships (Davis, Petretic-Jackson, & Ling, 2001). It can be assumed that a fear of intimacy causes problems in marital relationships because these relationships elicit intimacy. Accordingly, avoidance of intimacy might involve a tendency to be interpersonally distant or withdrawn in the marital

relationship. Avoidance of intimacy is understood as an attempt to avoid the type of interpersonal situations that trigger memories of abuse (Messman-Moore & Coates, 2007). This avoidance by withdrawing may have a long-term impact by limiting opportunities for corrective relationship experiences (Davis, et al., 2001). Ultimately, then, avoidance coping may lead to low levels of satisfaction in intimate relationships that could last into later adulthood.

In regards to avoidance coping as a mediator, cross-sectional research suggests a pathway from child abuse to the use of avoidance coping, avoidance coping to psychological functioning, and from psychological health to relationship outcomes, such as revictimization. For example, Fortier and colleagues (2009) examined the relationship between the severity of childhood sexual abuse and negative interpersonal outcomes through coping and psychological factors in a sample of female undergraduate students who reported a history of child sexual abuse. Results demonstrated that the use of avoidant coping mediated the association between the severity of childhood sexual abuse and trauma symptoms such that greater severity of child sexual abuse was associated with greater use of avoidant coping strategies, which was related to high levels of trauma symptoms. Trauma symptoms in this study included symptoms of posttraumatic stress disorder as well as common symptoms found in traumatized individuals, such as social isolation. Importantly, the measure of trauma symptoms excluded cognitive and behavioral avoidance symptoms in order to circumvent conceptual overlap with the construct of avoidant coping.

The present study aimed to clarify the association among the experience of child abuse, life course events, psychological adjustment, and marital satisfaction in later life. Marital satisfaction was examined in a group of older married individuals who retrospectively endorsed a history of childhood physical abuse, verbal abuse and/or sexual abuse before the age of 18. Although previous studies examined the association of child maltreatment on later adult

relationship satisfaction, the study made a unique contribution to the existing literature in that it examined marital satisfaction in older age. Furthermore, the study extended the current research in that it aimed to explicate likely mediators of the relationship of child maltreatment and marital satisfaction in older age. In particular, based on life course theory, the study examined specific life course risks, including early marriage, early childbirth, and multiple divorces, as mediators of the association of child abuse and marital satisfaction. Additionally, based on the biological embedding model, the study investigated adult individual characteristics, including the use of avoidance coping and depression, as mediators of this association. Clarifying the mechanisms through which child maltreatment is related to levels of marital satisfaction in older age is needed to enhance the understanding of the long-term effects of child abuse on relationships. This understanding may aid in efforts to effectively help survivors of child maltreatment to have fulfilling and satisfying relationships later in life.

1.6   Contextual Factors that may Impact the Association Between Child Maltreatment and Older Age Relationship Satisfaction

The effects of abuse on relationship functioning may be different for men versus women and also may vary based on the type and severity of the abuse.

Gender. Findings from studies that have examined possible gender differences in the effect of child maltreatment on later relationship functioning have been mixed. Some studies demonstrate significant gender differences, while other studies fail to find gender discrepancies. In a study that examined the associations of childhood physical abuse, sexual abuse, and neglect on adult intimate relationships, associations did not differ considerably for men and women (Colman & Widom, 2004). Results demonstrated associations between all types of abuse and neglect and an increased risk of relationship dysfunction for men and women with the exception

of physical abuse for women, which was unrelated to relationship dysfunction. Additionally, all types of abuse were associated with an increased risk for divorce for both men and women. Thus, results indicate that generally, the impact of child abuse on relationships may be similar for men and women. Likewise, gender differences may be more likely to emerge as a result of physical abuse than other types of abuse.

Other studies have found gender differences in the effect of abuse on relationship functioning. A study that investigated newlywed couples over a period of two years where both the husband and wife reported a history of sexual, physical, and/or psychological abuse and/or neglect (DiLillo, et al., 2009) found that for men only, greater severity of physical and psychological abuse was associated with lower marital satisfaction. Also, men who had been divorced reported significantly greater severity of these types of abuse compared to men who had not divorced during the two years of the study. For women, physical and psychological abuse were not associated with lower levels of marital satisfaction, which was only measured for those participants whose marriage remained intact during the study. Nonetheless, women who divorced during the two years of the study reported greater emotional neglect, sexual abuse, and psychological abuse severity than women who had not divorced. Thus, results suggest that physical and psychological abuse may be particularly detrimental for marital satisfaction as well as divorce for men; whereas for women, early abuse may be associated with an early divorce, but is unrelated to marital satisfaction when the marriage remains intact in the newlywed years.

Research on the effects of abuse on relationship functioning also compares men and women with regard to psychological health, which may account for the mixed findings when investigating gender differences in the effect of abuse on marital satisfaction. For example, Godbout, Lussier, and Sabourin (2006) examined mediators in the relationship between different

types of abuse and dyadic adjustment, which is commonly used as a measure of marital satisfaction, in adult men and women who were in married or cohabitating relationships. First, some consistencies were found across gender. For example, univariate correlations demonstrated a significant association between physical abuse and low dyadic adjustment scores for both men and women. Also, for both men and women, childhood sexual abuse and adult dyadic adjustment was mediated by anxiety related to abandonment in close relationships as well as psychological distress, which included measures of depressive symptoms, anxiety, aggressiveness, and cognitive disturbances. However, gender differences emerged when examining the effects of psychological abuse on later relationship outcomes and when examining the association between different types of abuse and psychological distress. Psychological abuse was related to low dyadic adjustment scores for men only and psychological abuse was indirectly related to dyadic adjustment through psychological distress for men. For women, although psychological abuse was correlated with psychological distress and anxiety about abandonment, psychological abuse was unrelated to dyadic adjustment. Physical abuse, like psychological abuse, was indirectly related to dyadic adjustment through psychological distress for men. However, for women physical abuse was significantly correlated with dyadic adjustment, but unrelated to psychological distress. Thus, results suggest that the long-term impact of childhood sexual abuse on later relationship functioning may be similar for men and women. However, significant gender differences may be more prevalent when examining the association between physical and psychological abuse and adult relationship outcomes and may be indirectly related through the experience of psychological distress.

However, another study that examined global psychological functioning as a mediator between child abuse and relationship functioning demonstrated somewhat different effects. The

effects of child maltreatment on relationship functioning were mediated by psychological functioning measured by a global severity score for women, but not for men (DiLillo, et al., 2007). In fact, abuse and psychological functioning were unrelated for men. The different findings between the two studies could be related to age differences and discrepancies in terms of the level of commitment in the relationships of the participants studied. The later study that failed to find a relationship between child maltreatment and psychological functioning for men used a sample of college-age students who were in dating relationships, whereas the former study investigated individuals with a mean age of 32 who had been married for an average of almost one year. Therefore, comparing these studies suggests that the impact of maltreatment on relationship functioning through psychological distress for men may not emerge until the relationship transitions from a more casual and transitory dating relationship to a more serious committed relationship where the couple is either married or living together for a prolonged period of time.

Nevertheless, there are reasons to suspect that these gender differences might not be so clear. First, the strong association for men might have occurred because the severity of abuse is often greater for boys than for girls. For example, in the DiLillo, et al. (2009) study, which did not find a significant association between physical abuse and relationship outcomes for women, husbands reported significantly greater physical abuse severity than wives. Likewise, some of the lack of findings for the effect of physical abuse on relationship factors for women could also be due to small sample sizes. For example, the number of women in the Colman and Widom (2004) study that reported physical abuse was small; thus, the lack of association may be due to issues regarding the power in the analyses. Likewise, the lack of a significant association between physical abuse and relationship outcomes for women in the Colman and Widom (2004) study

and the DiLillo et al. (2009) study may have been related to discrepancies in the length of the relationship and age. Women in these two studies were young and in relatively short-term marriages/cohabitating relationships, with the average age in the mid- to late-20s and were married for on average two years. However, women in the Godbout et al. (2006) study, which detected an association between physical abuse and dyadic adjustment for women, were relatively older, with an average age 40.5 years old and had lived with their partner for 13 years on average. Therefore, aggregating results from these two studies suggests that the effects of abuse on marital satisfaction for women and the effects of abuse on psychological functioning for men may not emerge until relatively later in the marriage and may not be evident until around midlife.

Severity of the trauma. Most studies of childhood abuse examine the severity of abuse as a predictor instead of using abuse as a dichotomous variable with an abuse group and a non-abuse group. Severity of the abuse is often defined by combining certain aspects of the abuse that contribute to the level of harshness of the experience. For example, abuse that occurred more frequently is often considered more severe than a single episode of abuse or abuse that occurred over a shorter period of time (Tsai, Feldman-Summers, & Edgar, 1979). Abuse severity is also considered more severe as the number of perpetrators of abuse increases. Although the number of perpetrators most often pertains to severity regarding sexual abuse, the number of depressive episodes is positively related to the number of perpetrators of emotional abuse (Liu, Jager-Hyman, Wagner, Alloy, & Gibb, 2012). Further, another way that abuse severity has been conceptualized is by the cumulative effects of abusive experiences. That is, a history multiple forms of interpersonal trauma is associated with greater psychological distress than a history of one of these types of abuse alone (Green, et al., 2000). Therefore, because the severity of the

abuse alters the impact of abuse on later adult functioning, severity of abuse is an important factor to take into account when examining the long-term effects of abuse.

1.7   Hypotheses

According to life course theory and the literature on childhood maltreatment, the experience of childhood abuse may be associated with certain life course risks and characteristics of individual adjustment that predispose one to be particularly vulnerable to marital dissatisfaction in older age. The current study hypothesizes that life course risks, including early marriage, early childbirth, and multiple marriages, in addition to psychological vulnerabilities, including the use of avoidance coping and depression, mediate the relationship between child abuse and late life marital satisfaction.

Hypothesis 1. The experience of child abuse will be significantly and negatively associated with marital satisfaction in late life.

Hypothesis 2. The relationship between child abuse and marital satisfaction will be mediated by life course risks that include early marriage, early childbirth, and multiple divorces.

> *Hypothesis 2a.* Child abuse will be positively associated with the occurrence of life course risk factors.

> *Hypothesis 2b.* Experiencing more life course risk factors will be negatively associated with late life marital satisfaction.

> *Hypothesis 2c.* The direct association between child abuse and marital satisfaction will be attenuated when life course risks are included in a prediction model, thus, demonstrating mediation.

Hypothesis 3. The association between child abuse and marital satisfaction will be mediated by avoidance coping.

Hypothesis 3a. Experiencing child abuse will be associated with relatively greater use of avoidance coping.

Hypothesis 3b. The use of avoidance coping will be negatively associated with marital satisfaction.

Hypothesis 3c. The direct association between child abuse and marital satisfaction will be attenuated when the use of avoidance coping is included in the prediction model, thus, demonstrating mediation.

Hypothesis 4. The association between child abuse and marital satisfaction will be mediated by depression.

Hypothesis 4a. Experiencing child abuse will be positively associated with depression.

Hypothesis 4b. Depression will be positively associated with marital satisfaction.

Hypothesis 4c. The direct association between child abuse and marital satisfaction will be attenuated when depression is included in the prediction model, thus, demonstrating mediation.

In addition to examining these hypotheses, the impact of the severity of the abuse was explored in the models to determine the best way to account for this variable in the model. Likewise, because the impact of abuse often varies based on gender, gender was taken into account by examining men and women separately.

2　METHOD

2.1　Design Overview

Data for this study are from the Wisconsin Longitudinal Study (WLS), a large longitudinal investigation that followed a random sample of 10,317 men and women who were

born mainly in 1939 and graduated from Wisconsin high schools in 1957. Researchers randomly selected siblings of the graduates who were added to the sample in 1975 and in 1994. Data were collected over five time points from the graduates or their parents. The initial wave of data was collected in 1957 from graduates when participants were around the age 18. Data were subsequently collected in 1964, when the graduates were around the age of 25, in 1975 when graduates were around the age of 36, in 1992 when participants were approximately 53 years old, and, finally, the last wave of data were collected in 2003 when participants were approximately 65 years old. The present study uses data from all waves of the study.

2.2   Participants

The total sample of graduates consisted of 10,317 individuals. Retention rates from 1957 to 2004 were excellent. Of the original 10,317 graduates, 80.46% participated in the 2004 Phone Interview and 75.81% participated in the 2004 when accounting for the portion of the sample that died during that time period. The current sample was limited to those living respondents who had complete data on abuse questions that were used in the current study and those participants who had complete data on the marital satisfaction questions. Of the 10,317 graduates in the full sample, 6243 respondents had complete data on abuse questions; of those, 4775 had complete data on the marital satisfaction questions. Six hundred and eighty-three participants did not complete any CES-D items and were deleted from the sample. If participants responded to CES-D questions with a score other than "0" and left the other questions blank, it was assumed that those blank items were indicative of no presence of the symptom, so the missing items were scored as a "0." Scores were assigned in this manner for 21 participants. If participants answered at least 10 of the 20 questions on the depression measure, scores were prorated to obtain a total score. Scores were estimated in this manner for 210 participants, of which 206 answered more

than 17 of the 20 questions. These steps resulted in 4084 participants remaining in the sample. Of the remaining participants, coping data were incomplete for 172 participants, for whom 97 scores were estimated by prorating because participants answered at least half of the questions. Seventy-five of the participants were deleted due to answering less than half of the avoidance questions, resulting in 4009 participants.

Sixteen participants were deleted due to inability to determine the age of marriage. Also, the number of divorces could not be determined for 38 participants and therefore, these participants were deleted. Finally, 12 participants were deleted due to inability to determine the age at childbirth. These deletions resulted in 3943 participants ($N = 1957$ men; $N = 1986$ women) in the current sample (63% of participants with abuse data). Power was evaluated by examining the ratio of the number of men and the number of women to the number of parameters estimated in the proposed model ($q = 17$). Power was sufficient because the ratios were greater than 10:1.

Demographic data of those participants who were not included in the current sample was examined to determine if there were significant differences between those that were included in the sample and those that were excluded to determine the generalizability of the current study. When the sample for the current study was compared to the participants that were eliminated due to incomplete data, a few significant differences emerged. Of note, the Intelligence Quotient variable used was the raw score on the Henmon-Nelson Tests of Mental Ability and do not have a median score of 100. The current sample was married more times at the last wave of data collection (M = 1.23, SD = .51 compared to M = 1.16, SD = .61; $p < .001$), had a higher IQ (M = 60.13, SD = 11.01 compared to M = 54.61, SD = 11.16; $p < .001$) and the parent's SES in 1957 (which was a weighted combination of four items that included information pertaining to their mother's and father's years of schooling, their father's occupation in 1957, and their parent's

average parental income from 1957 to 1960) was significantly higher (M = 27.13, SD = 9.43

compared to 10.65, SD = 3.55; *p* < .001) than the participants who were excluded from the

current sample. The sample used for the present study was not significantly different regarding

the severity of abuse, the sum of verbal abuse, or the sum of physical abuse; however, the sum of

sexual abuse was lower in the current sample than the full sample (M = .09 compared to M = .11,

p < .05).

The current sample consisted of 3943 graduates (50.4% were female) who were born

between 1937 and 1940, with a mode of 1939. Consistent with the population of Wisconsin mid

20th century, all participants were Caucasian. The average age at the last wave of data collection

was 65.4 years.

2.3   Procedures

The measures for the present study were obtained from phone interviews with the

graduates in 1975, 1992-93, and 2003-05 as well as mailed questionnaires given to the graduates

in 2003-2005. During each wave of data collection, participants first completed the telephone

interviews and were then mailed questionnaires. However, in the instance where a participant did

not complete the telephone interview, questionnaires were still mailed. Participant's age at first

marriage and age at the birth of his/her first child were asked in phone interviews with the

graduates in 1975 and again in 1992-93. Additionally, in phone interview in 2003-05,

participants were asked the date of their oldest child's birth. Therefore, if the response to one of

these questions was missing, data were supplemented using responses from the other questions.

During the phone interviews in 2003-05, participants were asked to state the number of times

they had been married, their current marital status, and how previous marriages ended (i.e.,

divorce, death of a spouse) if they reported more than one marriage. Participants were also asked

to provide their current marital status in the 2003-05 mailed questionnaires. Therefore, again, all responses were examined in the event of missing data. The CES-D was administered in the 1992-93 mailed questionnaires. The 2003-05 mailed questionnaires included the Coping Orientations to Problems Experienced, the abuse questions, and the marital satisfaction questions.

2.4   Measures - Abuse

Physical abuse, emotional abuse, and sexual abuse before the age of 18 were all measured in a series of questions embedded in the 2003-05 mailed questionnaires. Respondents answered two questions pertaining to physical abuse – one specific question, which was derived from the Conflict Tactics Scale (Straus, 1979), and one general question. In separate questions about each parent, participants were asked how often their mother or father "slapped, shoved or threw things at you?" Participants were also asked how often their mother or father "treated you in way that you would now consider physical abuse?". Emotional abuse was also assessed in separate questions about each parent. Participants were asked how often their mother or father "insulted or swore at you." Sexual abuse was asked regarding the participants' father or "other," which could refer to a mother, uncle, or anyone outside of the family. Participants were asked how often their father or another person "had oral, anal, and/or vaginal sex with you against your wishes," and "treated you in way that you would now consider sexual abuse?" Participants responded to all questions on a 4-point scale, where 1 = "not at all", 2 = "a little", 3 = "some", and 4 = "a lot". Therefore, higher scores indicated a higher frequency of abuse based on the respondents' perception.

Child abuse data were examined in different ways. First, child abuse was inspected as a binary variable with a "no abuse" group and a group that experienced "abuse", irrespective of the type of abuse reported. Previous studies (Springer, 2009) using the physical abuse item from the

CTS (Straus, 1979) dichotomized the responses by grouping the "not at all" and "a little" responses together to indicate "no abuse", and combining "some" and "a lot" to indicate "abuse". The response "a little" was assigned to indicate no abuse when dichotomizing the abuse variables in order to ensure that the abuse category did not include corporal punishment practices that were relatively common when this sample were children (Springer, 2009). Therefore, in the current study, physical abuse and emotional abuse were dichotomized in this way. However, regarding sexual abuse, there was no danger of over identifying "mild" forms of sexual abuse because any sexual activity violates standards against sexual activity with children. Therefore, respondents who answered "not at all" to the sexual abuse questions comprised the "no abuse" group whereas those who responded "a little," "some," and "a lot" to sexual abuse items comprised the "abuse" group. Second, child abuse was examined as three binary variables, one variable for each type of abuse (physical, emotional, and sexual abuse). Within each type of abuse, participants were grouped into either the "no abuse" group or the "abuse" group. That is, there was a "no physical abuse group" that included those respondents that responded "not at all" and "a little" to the physical abuse questions and a "physical abuse" group that responded "some" and "a lot" to the physical abuse questions. For emotional abuse, the groups were constructed in the same way as the physical abuse groups. However, for sexual abuse, only those participants who responded "not at all" to the sexual abuse questions were included in the "no sexual abuse" group, whereas those that responded "a little", "some", and "a lot" were included in the "sexual abuse" group. Third, each type of abuse was also examined as dichotomous variables as outline previously, and examined separately for abuse by father and abuse by mother (or other in the case of sexual abuse). Fourth, each type of abuse was also examined as three different groups, one group that did not report abuse, one group that reported that type of abuse by one parent, and another group

that reported that type of abuse by both parents. Fifth, abuse was examined by a count of the number of "abuse" groups in which a participant fell. In other words, when examining verbal, physical, and sexual abuse groups, if a participant was categorized into the verbal abuse category, no physical abuse category, and no sexual abuse category, a score of "1" was assigned. However, if a participant fell into the verbal and physical abuse category and the no sexual abuse category, a score of "2" was assigned. Sixth, abuse was also examined as three groups based on type of abuse again. However, within each type of abuse group, abuse was examined as the sum of responses to all questions concerning that type of abuse. Lastly, a sum of the total severity of abuse was derived by summing all of the responses across all questions related to abuse (with the score of "a little" on questions pertaining to physical and emotional abuse counting as "0" as not to over-identify mild forms of verbal and physical abuse that were common during this time period when corporal punishment was relatively accepted as a disciplinary practice).

Correlations were computed in order to develop a composite measure of abuse. Preliminary inspection of the correlations of various measures of abuse history with the hypothesized mediators and the outcome indicated that the most consistent findings occurred for the sum of the total severity scores for all types of abuse. Thus, this variable was used in the causal modeling.

2.5   Measures - Life Course Risks

Early marriage and multiple divorces. In the 2003-05 round of data collection, the graduate respondents were asked in telephone interviews information on marriage(s). Interviewers asked participants, "How many times have you been married in all including your present marriage?" Then, participants were asked the dates of all of their marriages, including the first. Participants' age at first marriage was calculated by subtracting the date of their first

marriage from their date of birth, which was obtained during the 1975 and/or the 1992-93 for the graduates. When some of this data were missing, all other available data pertaining to marital age was examined in order to determine the age of the first marriage. Age of marriage was dichotomized into three groups based on a study that examined the relationship between marriage timing and marriage dissolution (Moore & Waite, 1981). The age of marriage groups consisted of a group of participants who entered into marriage at 18 or younger, a group who married at 19 and 20, and a group who married at 21 years and older. The same age groups were used for men and women despite statistics that show that women tend to marry earlier than men because often marriage timing is relative to the timing to graduating from high school, which is similar for both men and women. Participants were also asked to indicate how their marriage ended (i.e., death of a spouse, divorce). Because the current study is interested in remarriages due to divorce, the number of divorces was used as an indicator of multiple marriages. Likewise, based on the research that suggests that individuals who have had more than one divorce may be distinct from those that have had either one divorce or no divorces, individuals with only one divorce were examined in a group with those who had not been divorced. Those participants who experienced two or more divorces were group together.

Early childbirth. In the 1975 phone interview, participants were asked information about their children. Interviewers asked how many children the participant had and the month and year that each child was born. The age of the participants at the time of birth of their first child was calculated by subtracting the date of birth of their first child from the participant's date of birth. Twenty years old is commonly used as a cut-off age to differentiate young parents from (Taylor, 2009) parents who had children consistent with norms. Therefore, those participants who had children at age 20 or younger were examined as a group and those who had children older than

20 or did not have children were examined as a different group.

Correlations of the life course risk variables also were examined in order to develop a composite for this variable. Preliminary inspection of the correlations of life course risks with the abuse variables and the outcome indicated that the most consistent findings occurred for the count of the number of life course risks one experienced. Thus, the life course risks variable that was used in the causal modeling was a count of the number of risks each participant had experienced. For example, a participant who married younger than 18 who was not considered to have a child early and did not have multiple divorces received a life course risk count of 1. Although the range of this variable was restricted because it was a count of the number of risks, the skew and kurtosis of the life course risk variable remained within an acceptable range for this sample.

2.6   Measures - Adult Individual Characteristics

Depression. Depression symptoms were measured with Radloff's (1977) Center for Epidemiologic Studies – Depression (CES-D) Scale. Respondents reported the number of days in the past week (0-7 days) in which they experienced each of 20 depressive symptoms. Then, responses were converted to a 4-point scale where $0 =$ never, $1 = 1$ to 2 days, $2 = 3$ to 4 days, and $3 = 5$ to 7 days and responses were summed to obtain a total score. The 4-point scale is the conventional scoring of the CES-D. A total score of 16 or higher indicates an elevated risk for clinical depression (Radloff, 1977), where a score of below 16 is not indicative of depression, a score of 10-26 indicates mild depression, and a score on 27 or above suggests major depression. The CES-D has been widely used and is shown to be a reliable measure of depression for multiple samples of older adults (e.g., Foelker & Shewchuk, 1992). For the current sample, alpha $= .88$ for women and alpha $= .85$ for men, indicating good reliability for both women and men.

2.7   Measures - Late Life Marital Satisfaction

The Marital Satisfaction Questionnaire for Older Persons. Late life marital satisfaction

was measured by an adapted version of The Marital Satisfaction Questionnaire for Older Persons

(Haynes, et al., 1992). This questionnaire was specifically designed to capture the marital

satisfaction of people in older age. Thus, it was designed taking into account the literature on

aging as well as previously validated measures of marital satisfaction. Additionally, items were

constructed based on information obtained during interviews with older married individuals and

professionals who worked with aging populations (Haynes, et al., 1992). In this study, six items

from the Communication/Companionship factor were given in the 2003-05 mailed surveys to the

graduates. These were the items that loaded highest on that factor in the original investigation

with the measure (Haynes, et al., 1992). Participants were instructed to endorse how satisfied or

dissatisfied they were with specific aspects of their marriage based on a 6-point scale, where 1=

"very dissatisfied," 2 = "dissatisfied," 3= "somewhat dissatisfied," 4 = somewhat satisfied," 5 =

"satisfied," and 6 = "very satisfied." Responses to items were summed to generate an overall

marital satisfaction score where higher scores indicated higher levels of marital satisfaction.

Participants were asked to rate their level of satisfaction with certain aspects of their relationship

such as, "the day-to-day support and encouragement provided by my spouse" and "how well my

spouse listens to me." The MSQFOP has demonstrated good temporal stability indicated by a

test-retest Pearson correlation of .84 for total scores and test-retest correlations ranging from .70

and .93 for individual items (Haynes, et al., 1992). The MSQFOP was highly correlated ($r = .82$)

with the Locke-Wallace Marital Adjustment Test (MAT; Locke & Wallace, 1959) demonstrating

criterion-related validity. The MSQFOP was also correlated with the Life Satisfaction

Questionnaire (Diener, Emmons, Larsen, & Griffen, 1985) and a shortened form of the Spouse

Observation Checklist (Weiss, Hops, & Patterson, 1973) as expected given the literature linking

marital satisfaction to life satisfaction and scales on the Spouse Observation Checklist such as

companionship and consideration, demonstrating construct validity (Haynes, et al., 1992).

Finally, the MSQFOP also demonstrated predictive validity using observers' ratings of couple

communication from the Communication Skills Test (CST; Floyd & Markman, 1984). For the

current sample, alpha = .94 for women and alpha = .95 for men, indicating excellent reliability

for both women and men. Additionally, the inter-item correlations were between .86 and .90 for

women and between .87 and .91 for men and were also all statistically significant at the $p < .01$

level for both women and men.

2.8   Measures - Coping

Coping Orientations to Problems Experienced (COPE). Coping was measured by an

adapted version of the Coping Orientations to Problems Experienced scale (Carver, Scheier, &

Weintraub, 1989) that was given to the graduates in the 2003-05 mailed surveys. Participants

were instructed to endorse a series of statements based on what they generally do when

experiencing a difficult or stressful event. The coping strategy of avoidance was used for the

current study. Avoidance coping was measured by three items where participants responded to

statements describing coping strategies that orient one away from the stressor or one's reactions

to the stressor using a 4-point scale, where 1= "I usually **do <u>not</u> do this <u>at all</u>**," 2 = "I usually **do

this a <u>little bit</u>**," 3 = "I usually **do this a <u>medium amount</u>**," and 4 = "I usually **do this <u>a lot</u>**."

Avoidant coping included the following three items: "Refuse to believe that it has happened.,"

"Give up trying to deal with it," and "Say to yourself this isn't real." Responses to these items

summed to generate an overall avoidance coping score where higher scores indicate a greater use

of avoidance coping strategies. The COPE scores have demonstrated adequate convergent and

discriminant validity in a study comparing the scores with two other measures of coping, the Coping Strategy Indicator and the Ways of Coping Questionnaire (K. K. Clark, Bormann, Cropanzano, & James, 1995). Confirmatory factor analysis was used to determine if factor structure was adequate. Factor loading for the three indictors were .73, .79, and .69 for women, indicating good (.5 or more) factor loadings. Factor loading for the three indicators for men were .77, .70, and .74 also indicating good factor loadings.

2.9   Design of Analysis

Structural equation modeling (SEM) was performed in AMOS 21 to analyze the data using maximum likelihood (ML) estimation. ML estimation was used to estimate parameters over other methods because data was normally distributed and because ML estimation is demonstrated to be as good as or superior to other methods of estimation even with large sample sizes, model misspecification, and non-normal data (Olsson, Foss, Troye, & Howell, 2000). Bootstrapping tests were used to test the significance of the standardized direct effects of the predictor variable on the criterion variable(s) and the indirect effects when the mediator(s) were placed in the model. The bootstrapping analysis is a re-sampling technique that draws random samples of the data repeatedly (e.g., 1000 samples) and estimates the indirect effects in each of the re-sampled data sets (Preacher & Hayes, 2008). In this study, bootstrapping sampled 1000 data sets and a 95% confidence interval was used.

The fit indicators used for the present study were chosen based on recommendations from Schreiber and colleagues (2006) and Kline (2011). The chi-square statistic and the associated *p* value, the Comparative Fit Index (CFI), Parsimony-based Goodness-of-Fit Index (PGFI), and the Root Mean Square Error of Approximation (RMSEA) were used to determine the fit of the models to the data. The model chi-square tests the extent to which specification of the factor

loadings, factor variances, and error variances for the model are valid. It is a "badness-of-fit"

statistic (Kline, 2011, p. 199) in the sense that chi-square should not be significant in order to

demonstrate a valid model. Thus, the p value of the chi-square statistic should be .05 or greater.

When analyzing large sample sizes, it is common for the chi-square to be significant and often

researchers ignore a significant chi-squared statistic. However, that practice has recently been

considered inadequate (Kline, 2011, p. 202). Therefore, when the chi-square statistic was

significant in the current study, the residual covariances and modification indices were examined

in order to determine a possible problem with the model (Kline, 2011, p. 202). The CFI is a

goodness-of-fit measure that indicates the relative improvement in the fit of the model when

compared to the baseline model, which is the independence model (Kline, 2011). The CFI ranges

from 0 to 1, with values closer to 1 indicative of a better fit; therefore, generally, a CFI value of

.95 or greater is considered acceptable (Kline, 2011; Schreiber, et al., 2006). Simulation studies

have shown that the Comparative Fit Index is unbiased; that is that it correctly estimates what the

fit of the model would be if the model fit the population. The PGFI is another goodness-of-fit

measure that also takes into account the degrees of freedom available for testing the model. This

statistic takes into account the complexity of the model and determines if the model is adequately

parsimonious (Kline, 2011p. 196); PGFI should have values of .50 or greater. The RMSEA is

another badness-of-fit index. Coffman (2008) found that the RMSEA was usually biased in most

conditions; that is, RMSEA underestimates the population value, which may result in researchers

claiming that the model fits when it does not. However, the confidence intervals of the RMSEA

contain the true population value of the RMSEA with 95% confidence. This situation indicates

that Type I error rates matched the alpha of .05 based on the confidence intervals. In addition,

both the test of exact fit (i.e., RMSEA = 0) and the test of close fit (i.e., RMSEA < .06) based on

these confidence intervals worked well in terms of Type I error rates and power (Coffman, 2008; Hu & Bentler, 1999). Thus, RMSEA values of 0 indicate the best fit and values of .06 or less may indicate an acceptable fit (Hu & Bentler, 1999; Schreiber, et al., 2006). Because of the Coffman (2008) findings, confidence intervals were reported in this study for RMSEA. If the lower bound of the confidence interval is less than .06, the close-fit hypothesis is not rejected, and if the upper bound of the confidence interval exceeds .08, the poor-fit hypothesis can not be rejected (Schreiber, et al., 2006).

In the current study, avoidance coping was treated as a latent variable with three indicators that represented the three items that measured avoidance coping. The model that included the latent variable avoidance with the three indicators is the measurement model. Although fit could not be assessed for the measurement model, all paths were significant at $p <$ .001. All other variables in the model were used as measured variables because the variables were assessed with established questionnaires; therefore each variable was represented by one variable in the model. The model that included the four observed variables (abuse severity, life course risks, depression, and marital satisfaction) and the one latent variable (avoidance coping) without the indicator variables is the structural model.

3 RESULTS

3.1 Sample Description

The current sample consisted of 3943 participants; 50.4% were women and 49.6% were men. Men and women were examined separately. The average age at first marriage for women was 21.7 and ranged from 17 to 46 years of age ($SD = 3.44$). The average age at first marriage for men was 23.9 and ranged from 17 – 48 years of age ($SD = 3.94$). In the current sample 55 women and 58 men did not have children. Of those participants who had at least one child, the

mean age at the birth of the first child was 23.2 for women and ranged from 16 to 43 years of age ($SD = 3.72$). For men, the mean age at the birth of the first child was 25.5 and ranged from 16 to 51 years of age ($SD = 4.20$). Divorce was uncommon in the sample. For women, 98% of the sample had no divorces or one divorce, whereas 2% had two or more divorces. The mean number of divorces for women was .32 and ranged from 0 to 5 ($SD = .84$). For men, 96.6% of the sample had no divorces or one divorce, whereas 3.4 percent of men had two or more divorces. The mean number of divorces for men was .45 and ranged from 0 to 6 ($SD = 1.01$). Additionally, the mean depression score assessed in 1992 (when participants were approximately 53 years old) for women was 8.53 ($SD = 7.67$) and ranged from 0 to 54, whereas the average for men was 7.37 ($SD = 6.74$) and ranged from 0 to 48. According to the standard score interpretation of the CES-D, 87% of the women were classified as not depressed (e.g., scored below 16), 9.8% as having "mild" depression (e.g., scored between 16 and 26), and 3.2% as having "major" depression (scored 27 or above). For the men, 90.1% were classified as not depressed, 7.7% as having "mild" depression, and 2.2% as having "major" depression. Thus, overall in the current sample 13% of the women and 9.9% of the men were categorized as depressed by CES-D scores. These rates are consistent with estimated prevalence rates in the general population according to the DSM-IV-TR (Association, 2000).

Regarding abuse in the current sample, when examining the sum of all of the abuse questions, 40.1% of women and 48.9% of men experienced some type of abuse. For further information about abuse in the sample, refer to Table 1 for women and Table 2 for men.

3.2   Refining and Selecting Measures

All data were screened to determine if the data met the distributional assumptions required for Structural Equation Modeling. Thus, data were examined for collinearity between all

Table 1

Percentage of Abuse for Women

	None	A Little	Some	A Lot
Verbal Abuse				
Father	81%	11.90%	4.80%	2.30%
Mother	83%	10.80%	4.00%	2.20%
Physical Abuse				
Father	84.70%	10.80%	3.20%	1.20%
Considered Father	90.40%	4.80%	2.60%	2.10%
Mother	82.20%	12.60%	4.10%	1.00%
Considered Mother	91.60%	4.10%	2.80%	1.50%
Sexual Abuse				
Father	99.80%	0.10%	0.10%	0%
Considered Father	99.10%	0.50%	0.40%	0.10%
Other	98.40%	1.00%	0.60%	0.10%
Considered Other	93.20%	4.50%	1.70%	0.60%

Table 2

Percentage of Abuse for Men

	None	A Little	Some	A Lot
Verbal Abuse				
Father	68.90%	20.80%	8.10%	2.20%
Mother	88.50%	8.50%	2.40%	0.70%
Physical Abuse				
Father	69.40%	22.70%	6.20%	1.60%
Considered Father	86.50%	7.70%	4.10%	1.70%
Mother	78.70%	17%	3.70%	0.60%
Considered Mother	94.10%	3.70%	1.40%	0.70%
Sexual Abuse				
Father	99.90%	0.10%	0%	0%
Considered Father	99.90%	0.10%	0%	0%
Other	99.20%	0.80%	0%	0%
Considered Other	97.80%	1.80%	0.30%	0.10%

predictor variables using the variance inflation factor (VIF) scores. The VIF scores for all

examinations ranged between 1.00 and 1.05 indicating that redundancy was not likely. All

continuous study variables were examined for skewness and kurtosis using the skew index (SI)

and the kurtosis index (KI). Based on guidelines from computer simulation studies of estimation

methods used by SEM programs, Kline (2011) suggests that variables with absolute values of SI

> 3 are extremely skewed and that absolute values of KI > 10 are indicative of a problem. Therefore, these guidelines were used when examining the data for skew and kurtosis. For women, the SIs for the variables were between -1.07 (marital satisfaction) and 2.68 (abuse severity) and the KIs were between 1.07 (life course risks) and 8.35 (abuse severity). These values are all within an acceptable range according to suggested guidelines and, therefore, no transformations were performed. For men, the SIs for the variables were between -1.5 (marital satisfaction) and 3.05 (life course risks) and the KIs were between .264 (give up the attempt to cope) and 10.03 (life course risks), indicating that not all of the SIs and KIs were acceptable. The SI and KI for the life course risk variable indicated extreme skew and kurtosis. Therefore, a logarithmic transformation was performed on this variable for men, which yielded a variable with acceptable skew and kurtosis indexes, 2.30 and 4.30 respectively. This transformed variable was used in the analyses for men. A bivariate data plot was generated to examine linearity of continuous variables. The presence of univariate outliers was determined by examining Z scores greater than the absolute value of three for all variables of interest. No univariate outliers were identified with the exception of scores on the depression variable. However, no transformations were made to these scores because a normal distribution is not expected for depression in the population, the variable was not significantly skewed, and because the scale is meaningful. Of note, transforming the variable by changing outliers to the nearest score within three standard deviations from the mean did not alter the results of the models. The presence of multivariate outliers was determined using the Mahalanobis distance statistic (D). All p values associated with D were greater than .001 and therefore retained for the analyses.

Demographic characteristics are often associated with various childhood risk factors, such as abuse. These risk factors often covary with the hypothesized mediators in the study and

marital satisfaction. Therefore, family of origin SES (a composite of parents' education, father's occupational prestige, and family income) and respondent IQ (as measured by the Henmon-Nelson test score administered in 1957) were examined as possible confounds. The correlation matrixes for women revealed significant correlations between the parent SES score and life course risk ($r = -.14$, $p < .01$), avoidant coping ($r = -.13$, $p < .01$), depression, ($r = -.12$, $p < .01$), and marital satisfaction ($r = .06$, $p < .01$). Additionally, the participant's IQ was significantly associated with the severity of abuse, ($r = -.06$, $p < .05$), life course risks ($r = -.08$, $p < .01$), avoidance coping ($r = -.23$, $p < .01$), and depression ($r = -.14$, $p < .01$) for women. For men, parent SES was significantly associated with the severity of abuse ($r = -.05$, $p < .05$) and avoidance coping ($r = -.08$, $p < .01$) and IQ was significantly associated with life course risks ($r = -.05$, $p < .05$) and avoidance coping ($r = -.24$, $p < .01$). The impact of these variables was tested by covarying them in the analyses and generally did not change the associations in the models for women (i.e., paths that were significant remained significant and paths that were not significant remained unassociated when the demographic variables were covaried). There was a small reduction in the path for men from abuse to life course risks (β was reduced from .05, $p < .05$ to .04, $p = .053$) when the covariates were added into the final model, which caused these variables to not be significantly associated. Because the change was a small effect and essentially slightly weakened an already weak effect, the covariates were not included in the partial models. Instead, the covariates were only included in the final models. That is, both parent SES and participant's IQ were treated as covariates in the proposed model and the trimmed model for the women and the men. Then, the models with the covariates were compared to determine the best fit. The correlations between variables are depicted in Table 3 for both men and women.

Table 3

Variables	Mean (*SD*)		1	2	3	4	5
Correlations for Structural Equation Modeling Analyses							
	Men	Women					
1. Abuse Severity	1.58 (2.43)	1.43 (2.65)	-	**.05***	**.07****	**.04**	**-.06****
2. Life Course Risk	.05 (.13)	.66 (.93)	.06*	-	**-.01**	**-.01**	**.001**
3. Depression	7.37 (6.74)	8.54 (7.68)	.12**	.05*	-	**.20****	**-.21****
4. Avoidance Coping	1.08 (1.44)	1.23 (1.55)	.06*	.01	.22**	-	**-.07****
5. Marital Satisfaction	29.88 (5.46)	28.09 (6.02)	-.11**	-.01	-.27**	-.09**	-

Note. Correlations for men are in bold and are given above the diagonal. Correlations for women are given below the diagonal.
SD = Standard Deviation.
* *p* < .05, ** *p* < .01.

3.3   Testing Hypotheses

The proposed model is portrayed in Figure 1, with abuse severity as the exogenous predictor, marital satisfaction as the criterion, and life course risks, depression, and avoidance coping as mediators. The research hypotheses comprised separate components of the model, and thus were tested in separate smaller models that addressed each hypothesis. All models were tested separately for men and women. Results of all model tests are given in Tables 4, 5, 6, and 7. The fit statistics are summarized in Table 4 for women and Table 5 for men and the direct and indirect effects, standard errors, and squared multiple correlations (for endogenous variables) for all models are summarized in Table 6 for women and Table 7 for men.

Model 1 tested hypothesis 1, which proposed a direct association between child abuse and marital satisfaction. Fit statistics for model 1 were not applicable as it was a test of the association between two variables and therefore there were no parameters that were free to vary. In other words, the test did not allow for model-data discrepancy. However, the unstandardized regression coefficient indicated that child abuse was significantly related to marital satisfaction

for women (see Table 6). Similarly, for the men the unstandardized regression coefficient was also significant (see Table 7), though small in magnitude. Thus, in support of hypothesis 1, abuse and marital satisfaction were significantly associated and in the expected direction for both women and men. However, the associations were small, with abuse only accounting for 11% and 6% of the variance in marital satisfaction for women and men respectively.

 Models 2a, 2b, and 2c were used to test the components of hypothesis 2 about life course risks as a mediator for women. Each of the components of the hypothesis was tested in turn. Model 2a tested child abuse as a predictor of life course risks, model 2b tested life course risks as a predictor of marital satisfaction, and model 2c tested life course risks as a mediator in the association between child abuse and marital satisfaction. The fit statistics for testing the components of hypothesis 2 again were not applicable because the degrees of freedom for each model was 0. For women, results for model 2a demonstrated that abuse and life course risks were significantly associated in the expected direction (see Table 6), supporting hypothesis 2a for women. For model 2b, life course risks were not significantly associated with marital satisfaction (see Table 6). Therefore, this hypothesis was not confirmed for women. This situation suggests that life course risks were not likely to mediate the association between abuse and marital satisfaction. Indeed, model 2c showed that life course risks did not attenuate the relationship between abuse and marital satisfaction for women (see Table 6). Furthermore, using bootstrapping to test the indirect effect of abuse on marital satisfaction through life course risks indicated that the indirect effect was not significant (see Table 6). Thus, the results failed to support the hypothesis that life course risks would mediate the relationship between abuse and marital satisfaction for women (see Table 6 for results of Model 2a, 2b, and 2c for women).

For men, results of model 2a demonstrated a marginally significant association between

abuse and life course risks (see Table 7), albeit a weak effect, which supported hypothesis 2a for men (see Table 7). For model 2b, life course risks were not significantly correlated with marital satisfaction (see Table 7). Therefore, hypothesis 2b was not confirmed for men. These results indicated that life course risks were not likely to mediate the relationship between abuse and marital satisfaction. As expected, results of model 2c for men demonstrated that the relationship between abuse and marital satisfaction was not attenuated (see Table 7) when the life course risks variable was tested as a mediator. Furthermore, using bootstrapping to test the indirect effect of abuse on marital satisfaction through life course risks indicated that the indirect effect was not significant (see Table 7). Therefore, the results failed to support the hypothesis that life course risks would mediate the association between abuse and marital satisfaction for men.

Next, models 3a, 3b, and 3c were used to test the hypothesis 3 about avoidance coping as a mediator in the association between abuse and marital satisfaction. Model 3a tested abuse as a predictor of avoidance coping, model 3b tested avoidance coping as a predictor of marital satisfaction, and model 3c tested avoidance coping as a mediator between abuse and marital satisfaction. Fit statistics were relevant for these models and were all within an acceptable range for women with the exception of a significant chi-square value for models 3b and 3c (see Table 4 for fit statistics for model 3a, 3b, and 3c for women). As mentioned previously, significant chi-square values are common with large data sets. Examining the standardized covariance residual for models 3b and 3c revealed one unacceptable value (larger than the absolute value of 2), which was for the association between avoid 3 and marital satisfaction (the standardized residual covariance was -3.25 for model 3b and -3.23 for model 3c). The avoid 3 variable is an indicator of the latent variable avoidance coping and represents the question on the coping measure that assess avoidance coping through "wishful thinking" (i.e., say to yourself this isn't real). This is

also apparent when examining the modification indices suggested by AMOS when testing this model, which recommended allowing there to be an association between marital satisfaction and avoid 3. These statistics indicate that the association between avoid 3 and marital satisfaction was not accounted for in the proposed model. In examining the direct and indirect effects, results of model 3a demonstrated that abuse and avoidance coping were significantly associated in the expected direction (see Table 6), supporting hypothesis 3a for women. For model 3b, avoidance coping was significantly associated with marital satisfaction (see Table 6) in the expected direction, providing support for hypothesis 3b for women. Results of model 3c indicated that the direct relationship between abuse and marital satisfaction was not attenuated by the mediator. These results suggested that avoidance coping did not mediate the relationship between abuse and marital satisfaction for women. However, the bootstrapping test revealed that the indirect effect between abuse and marital satisfaction through avoidance coping was significant (see Table 6), indicating that there was a weak indirect effect of abuse on marital

Table 4

Fit Statistics for Hypothesized Models for Women

	χ^2_M (*p* value)	df_M	PGFI	CFI	RMSEA (90% CI)
Desired Value	($\geq$ .05)	NA	$\geq$ .50	$\geq$ .95	$\leq$ .05 ($<$ .06 - $\leq$.08)
Model 1	NA	0	NA	NA	NA
Model 2a	NA	0	NA	NA	NA
Model 2b	NA	0	NA	NA	NA
Model 2c	NA	0	NA	NA	NA
Model 3a	2.60 (.27)	2	0.20	1.00	0.01 (.000 - .05)
Model 3b	17.68 (.000)	2	0.20	0.97	0.06 (.04 - .08)
Model 3c	19.35(.001)	4	0.27	0.98	0.04 (.03 - .06)
Model 4a	NA	0	NA	NA	NA
Model 4b	NA	0	NA	NA	NA
Model 4c	NA	0	NA	NA	NA

satisfaction through avoidance coping. Nevertheless, avoidance did not mediate the association

between child abuse and marital satisfaction for women (see Table 6 for results of Model 3a, 3b,

and 3c for women). Therefore, results failed to support hypothesis 3c for women.

Next, models 3a, 3b, and 3c were used to examine hypothesis 3 for men. The fit statistics

for models 3a, 3b, and 3c for men, with the exception of a significant chi-square value for

models 3b and 3c, all indicated a good fit (see Table 5 for fit statistics for model 3a, 3b, and 3c

for men). Examining the residual covariances for models 3b and 3c indicated an association

between avoid 3 and marital satisfaction (standard residual covariance was -2.66 for model 3b

and -2.65 for model 3c), association suggested for women. This problem is apparent when

examining the modification indices suggested by AMOS when testing this model. Similar to the

modification indices for women, for men the indices recommended allowing there to be an

association between avoid 3 and marital satisfaction. Again, these results indicated that the

model did not adequately account for the association between avoid 3 and marital satisfaction for

Table 5

Fit Statistics for Hypothesized Models for Men					
	χ^2_M (*p* value)	df_M	PGFI	CFI	RMSEA (90% CI)
Desired Value	($\geq$ .05)	NA	$\geq$ .50	$\geq$ .95	$\leq$ .05 (< .06 - $\leq$.08)
Model 1	NA	0	NA	NA	NA
Model 2a	NA	0	NA	NA	NA
Model 2b	NA	0	NA	NA	NA
Model 2c	NA	0	NA	NA	NA
Model 3a	1.06 (.59)	2	0.20	1.00	0.00 (.00 - .04)
Model 3b	12.32 (.002)	2	0.20	0.98	0.05 (.03 - .08)
Model 3c	13.00 (.01)	4	0.27	0.98	0.03 (.01 - .06)
Model 4a	NA	NA	NA	NA	NA
Model 4b	NA	NA	NA	NA	NA
Model 4c	NA	NA	NA	NA	NA

men as well. When examining the significance of the paths for men, results of model 3a demonstrated that abuse and avoidance coping were not significantly associated (see Table 7). Therefore, hypothesis 3a was not supported for men. For model 3b, avoidance coping was significantly correlated with marital satisfaction (see Table 7) in the expected direction. These results provided support for hypothesis 3b for men. However, because abuse and avoidance coping were not significantly associated, coping is not likely to mediate the association. Indeed, model 3c showed that the association between abuse and marital satisfaction was not attenuated by avoidance coping for men. Furthermore, the bootstrapping test of the indirect effect of abuse on marital satisfaction through avoidance coping indicated that the indirect effect was not significant (see Table 7). Therefore, the model failed to support hypothesis 3c for men. However, although avoidance coping did not mediate the association between abuse and marital satisfaction for men as hypothesized, results indicated that avoidance had an independent significant effect on late life marital satisfaction for men (see Table 7 for results of model 3a, 3b, and 3c for men).

Models 4a, 4b, and 4c were used to test hypothesis 4 about depression as a mediator. Model 4a tested abuse as a predictor of depression, model 4b tested depression as a predicator of marital satisfaction, and model 4c tested depression as a mediator in the association between abuse and marital satisfaction. The fit statistics for these models were not relevant as the degrees of freedom for each model was 0. Results for model 4a for women indicated that abuse and depression were significantly associated in the expected direction (see Table 6), suggesting support for hypothesis 4a for women. For model 4b, depression was significantly associated with marital satisfaction (see Table 6) in the expected direction, providing support for hypothesis 4b

for women. Results for model 4c indicated that the direct relationship between abuse and marital

satisfaction was attenuated by depression (see Table 6). Furthermore, the indirect effect of abuse

on marital satisfaction through depression was tested using bootstrapping and indicated that the

indirect effect was significant (see Table 6). These results provided support for the hypothesis

that depression mediated the relationship between abuse and marital satisfaction for women.

Because the direct effect between abuse and marital satisfaction remained significant, depression

partially mediated the association for women (see Table 6 for results of model 4a, 4b, and 4c for

women).

Table 6

Direct and Indirect Effects in the Hypothesized Models for Women

	Standardized	Unstandardized	*SE*	R^2
Model 1: Abuse → Marital Satisfaction	-.11	-0.26***	.05	.01
Model 2a: Abuse → Life Course Risks	.06	0.02**	.008	.003
Model 2b: Life Course Risks → Marital satisfaction	-.005	-0.03	.15	.000
Model 2c: Abuse → Marital Satisfaction	-.11	-.26***	.05	.01
Model 2c: Abuse → Marital Satisfaction[a]	.000	0.00	.003	
Model 3a: Abuse → Avoidance Coping	.07	0.008*	.004	.004
Model 3b: Avoidance Cope → Marital Satisfaction	-.10	-1.71***	.52	.009
Model 3c: Abuse → Marital Satisfaction	-.11	-0.24***	.05	.02
Model 3c: Abuse → Marital Satisfaction[a]	-.006	-0.01*	.009	
Model 4a: Abuse → Depression	.12	0.35***	.07	.02
Model 4b: Depression → Marital Satisfaction	-.27	-0.21***	.02	.07
Model 4c: Abuse → Marital Satisfaction	-.08	-0.19**	.05	.08
Model 4c: Abuse → Marital Satisfaction[a]	-.03	-0.07**	.02	

[a] Denotes indirect effect.
SE = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* *p* < .05, ** *p* < .01, ***p* < .001

     Model 4a, 4b, and 4c were next used to test hypothesis 4 about depression as a mediator

for men. As for women, the fit statistics were irrelevant for the men for this hypothesis as the

degrees of freedom for each model was 0. Results for model 4a for men demonstrated that abuse

and depression were significantly associated (see Table 7) in the expected direction, suggesting

support for hypothesis 4a for men. For model 4b, depression was significantly associated with

marital satisfaction (see Table 7) in the expected direction, suggesting support for hypothesis 4b

for men. Results of model 4c indicated that the direct relationship between abuse and marital

satisfaction was attenuated by the mediator (see Table 7). Furthermore, the bootstrapping test

indicated that the indirect effect of abuse on marital satisfaction through depression was

significant (see Table 7), supporting the hypothesis that depression mediated the relationship

between abuse and marital satisfaction. The direct effect between abuse and marital satisfaction

was no longer significant (see Table 7) for men.

Table 7

Direct and Indirect Effects in the Hypothesized Models for Men

	Standardized	Unstandardized	*SE*	R^2
Model 1: Abuse → Marital Satisfaction	-0.06	-0.13**	0.05	.003
Model 2a: Abuse → Life Course Risks	0.05	0.003*	0.005	.002
Model 2b: Life Course Risks → Marital satisfaction	.001	0.06	0.94	.000
Model 2c: Abuse → Marital Satisfaction	-0.06	-0.13**	0.05	.003
Model 2c: Abuse → Marital Satisfaction[a]	0.00	0.000	.003	
Model 3a: Abuse → Avoidance Coping	0.04	0.005	.004	.002
Model 3b: Avoidance Cope → Marital Satisfaction	-0.08	-1.35*	.53	.006
Model 3c: Abuse → Marital Satisfaction	-0.06	-0.13*	.05	.009
Model 3c: Abuse → Marital Satisfaction[a]	-.003	-.007	.006	
Model 4a: Abuse → Depression	0.07	0.19**	0.06	.005
Model 4b: Depression → Marital Satisfaction	-0.21	-0.17***	0.02	0.04
Model 4c: Abuse → Marital Satisfaction	-0.04	-0.10*	0.05	0.05
Model 4c: Abuse → Marital Satisfaction[a]	-0.01	-0.03**	0.01	-

[a] Denotes indirect effect.
SE = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* *p* < .05, ** *p* < .01, ***p* < .001

Next, the full proposed model based on the hypotheses, referred to as model 5, was tested

with all of the paths tested simultaneously without the covariates (see Figure 1 for the full

proposed model). When the full proposed model was analyzed, the fit for the proposed model

was questionable for both women and men (see Table 8 for fit statistics for model 5). This

questionable fit was expected given the lack of support of some of the hypotheses for women and

for men. The chi-square statistic for the model was large and significant for both the women and

the men (see Table 8)**.** The parsimony goodness-of-fit measure (PGFI) was not within an

acceptable range indicating that when the degrees of freedom, complexity of the model, and

parsimony were taken into account; the model was not a good fit for the data. The CFI indicated

that the fit of the proposed model was not a significant improvement in fit over the baseline

model. The RMSEA was slightly larger than acceptable indicating that the model was not likely

to fit the true population for women or men. However, because the RMSEA can be biased, the

confidence interval for the RMSEA was examined. For women, the upper bound of the

confidence interval for the RMSEA does not exceed .08; therefore, the poor-fit hypothesis is not

rejected. However, the lower bound of the confidence interval for the RMSEA for women was

not less than .06; therefore, the close-fit hypothesis is rejected, lending more evidence to indicate

that the model was not a good fit to the true population. For men, the confidence intervals

associated with the RMSEA were within an acceptable range demonstrating that when

discrepancies between the model-implied and sample covariances were allowed, the model may

be a close fit to the data for men.

The weak fit for the overall model could be accounted for by the non-significant

associations that were found in the partial models and repeated in the full model. However, one

discrepancy was that the indirect effect from abuse to marital satisfaction through avoidance

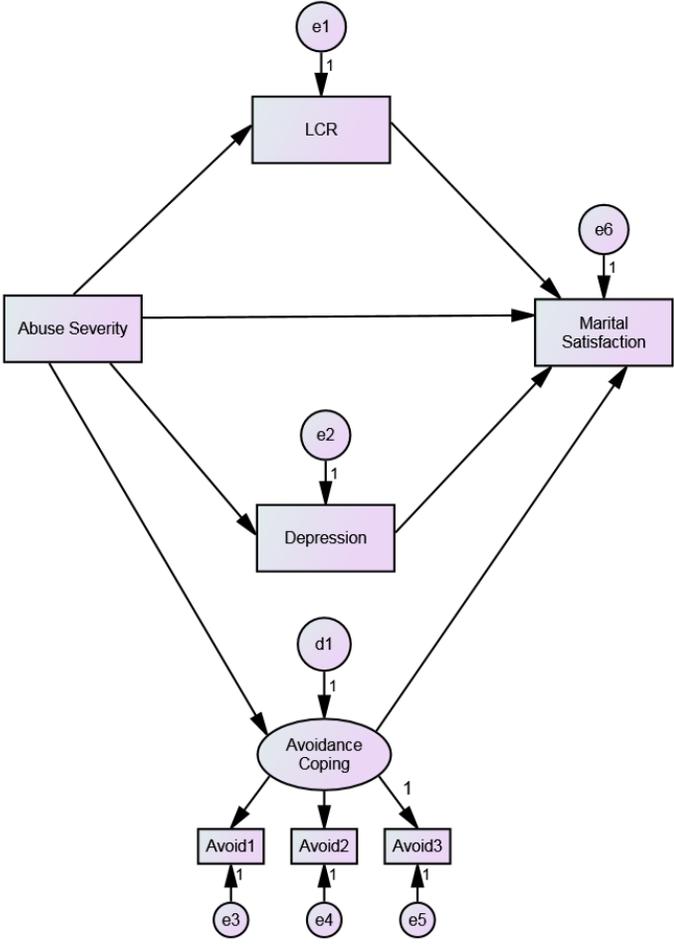*Figure 1.* Model 5 Representing the Full Proposed Model for Women and Men

coping was significant, indicating that mediation was present in the full model for women (see

Table 9 for results of direct and indirect effects and Figure 2 for the results of the final model

with standardized path estimates for women).

Table 8

	χ^2_M (p value)	df_M	PGFI	CFI	RMSEA (90% CI)

Fit Statistics for the Proposed Model for Women and Men

	χ^2_M (p value)	df_M	PGFI	CFI	RMSEA (90% CI)
Desired Value	NA (≥ .05)	NA	≥ .50	≥ .95	< .06 (< .06 - ≤.08)
Women	117 (.000)	11	0.39	0.88	.07 (.06 - .08)
Men	90 (.000)	11	0.39	0.89	.06 (.05 - .07)

Table 9

Results of Model 5: Direct and Indirect Effects in the Full Proposed Model for Women

	Standardized	Unstandardized	SE	R^2
Abuse → Depression	0.12	0.35***	0.07	0.02
Abuse → Avoidance Coping	0.06	.008*	.004	.004
Abuse → Life Course Risks	0.06	0.02*	.008	.003
Abuse → Marital Satisfaction	-0.08	-0.19***	.05	0.08
Abuse → Marital Satisfaction[a]	-0.03	-0.07**	NA	-
Depression →Marital Satisfaction	-0.25	-0.20***	0.02	-
Avoidance Coping → Marital Satisfaction	-0.02	-0.40	0.50	-
Life Course Risks → Marital Satisfaction	0.01	0.09	0.14	-

[a] Denotes indirect effect.
SE = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* *p* < .05, ** *p* < .01, ***p* < .001

The covariates were then tested to evaluate their effect on the full proposed model for women. Socioeconomic status of the participant's parent in 1957 and the participant's IQ were tested as covariates, with SES and IQ predicting marital satisfaction and with SES and marital satisfaction correlated. All direct paths between abuse, the mediators, and marital satisfaction that were significant in the full proposed model remained significant with the addition of the covariates. Additionally, the addition of the covariates did not change the indirect effect of child abuse on marital satisfaction in the model, which remained significant.
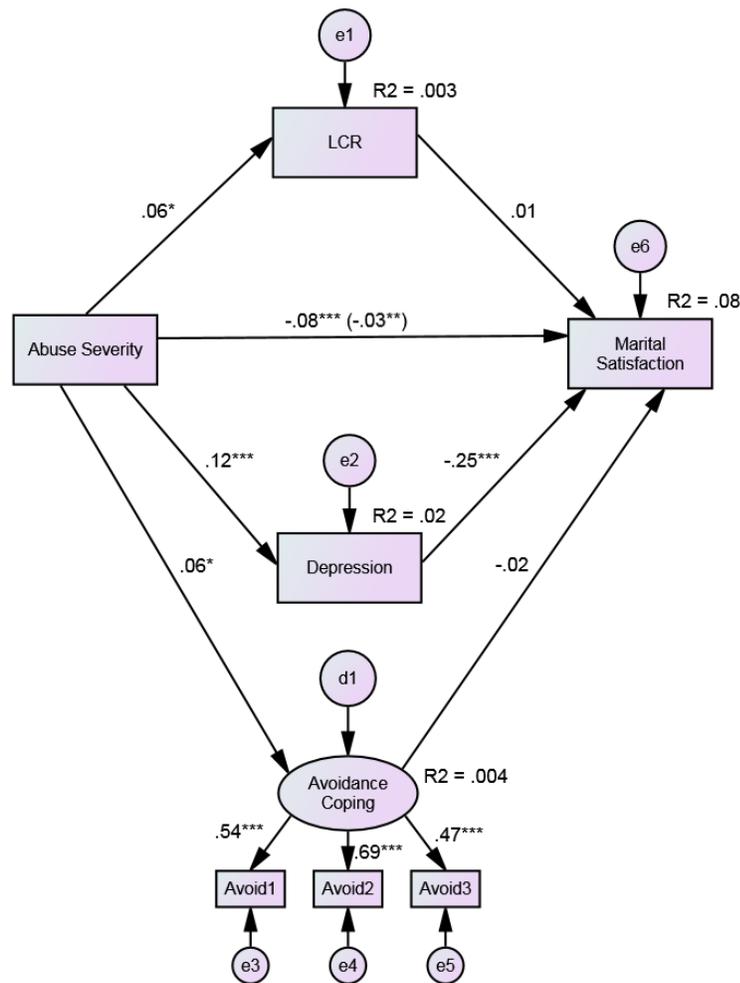
Figure 2. Proposed model (Model 5) with standardized path estimates for women. The standardized indirect path estimate is in parentheses.

Testing the full model for men revealed that the direct effects from abuse to avoidance coping and from life course risks to marital satisfaction were not significant, which is consistent with the tests of the individual components of the model. However, when testing the full model, the direct effect from avoidance coping to marital satisfaction was not significant, which is inconsistent with the tests of individual components. This non-significant path from avoidance

coping to marital satisfaction was the same path that became non-significant in the full model for

women. However, similar to the model for women, the indirect effect from abuse to marital

satisfaction remained significant for men. This significant indirect effect indicated that mediation

was present in the model (see Table 10 for results of direct and indirect effects and Figure 3 for

the results of the final model with standardized path estimates for men). Also similar to women,

from testing the individual components of the hypotheses for men, depression was the only

variable that was tested that was demonstrated to mediate the association between abuse and

marital satisfaction for men. Thus, depression was the only variable that mediated the association

of child abuse and marital satisfaction when the full model was tested.

Table 10

Results of Model 5: Direct and Indirect Effects in the Full Proposed Model for Men

	Standardized	Unstandardized	*SE*	R^2
Abuse → Depression	0.07	0.19**	0.06	.005
Abuse → Avoidance Coping	0.04	.005	.004	.002
Abuse → Life Course Risks	0.05	.003*	.001	.002
Abuse → Marital Satisfaction	-0.04	-0.10*	0.05	0.05
Abuse → Marital Satisfaction[a]	-0.02	-0.03**	NA	-
Depression →Marital Satisfaction	-0.20	-0.17***	0.02	-
Avoidance Coping → Marital Satisfaction	-0.02	-0.41	0.52	-
Life Course Risks → Marital Satisfaction	.001	0.05	0.92	-

a Denotes indirect effect.
SE = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* *p* < .05, ** *p* < .01, ***p* < .001

The covariates were then tested in the model for the men. Socioeconomic status of the

participant's parents in 1957 and the participant's IQ were placed in the model as covariates with

SES and IQ predicting marital satisfaction. Again, all direct paths between abuse, the mediators,

and marital satisfaction that were significant in the full proposed model remained significant

with the addition of the covariates except for the path from abuse to life course risks for men.
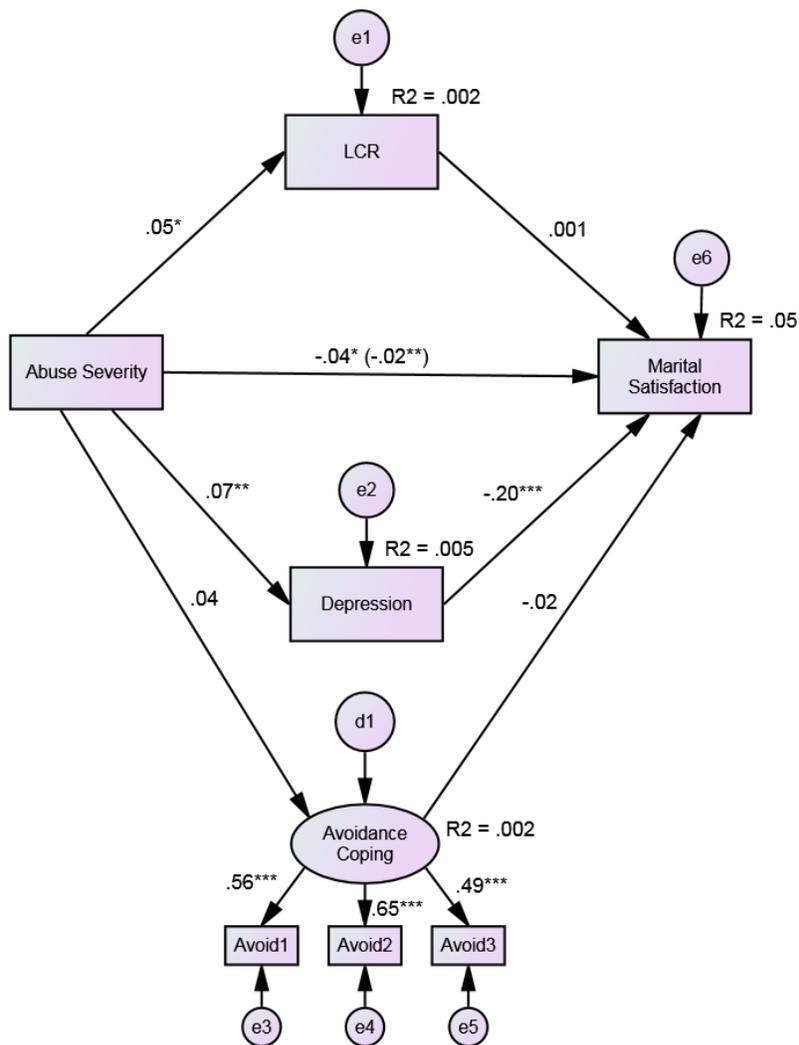
Figure 3. Proposed model (Model 5) with standardized path estimates for men. The standardized indirect path estimate is in parentheses.

This path was weak in the proposed model ($\beta = .05$, $p < .05$) for men and was reduced to a trend

by the covariates ($\beta = .04$, $p = .053$). However, the addition of the covariates did not change the

indirect effect of child abuse on marital satisfaction in the model, which remained significant.

3.4   Model Trimming

First, the proposed model for women was trimmed by eliminating the non-significant

paths from the proposed model. The resulting model, model 6, was then tested. When the

trimmed model for women was analyzed (model 6), the fit for the model was questionable (see

Table 11 for fit statistics for model 6). The chi-square statistic for the model was large and

significant. The CFI was not in an acceptable range indicating that the model was not a

significant improvement over the baseline model. The PGFI was approaching an acceptable

range, which indicated that when the degrees of freedom, complexity of the model, and

parsimony were taken into account, the model was approaching a good fit. The RMSEA was

slightly larger than acceptable. Examining the confidence intervals for the RMSEA in the

trimmed model indicated that the close-fit hypothesis was not rejected and the poor-fit

hypothesis could be rejected.

Table 11

Fit Statistics for the Proposed Model and the Trimmed Model for Women					
	χ^2_M (p-value)	df_M	PGFI	CFI	RMSEA (90% CI)
Desired Value	NA ($\geq$ .05)	NA	$\geq$ .50	$\geq$ .95	< .06 (< .06 - $\leq$.08)
Model 5	117 (.000)	11	0.39	0.88	.07 (.06 - .08)
Model 6	118 (.000)	13	0.46	0.88	.06 (.05 - .08)

The proposed model and the trimmed model for women were compared using the chi-

square difference test and the difference between the chi-squares was distributed as chi-square

with a degrees of freedom of 2, which in this case was not significant. Therefore, the trimmed

model was retained because it was more parsimonious than the full model, though both had

questionable fit (see Table 11 for the comparison of the proposed and trimmed model, figure 4

for the trimmed model with standardized path estimates for women, and Table 12 for results of
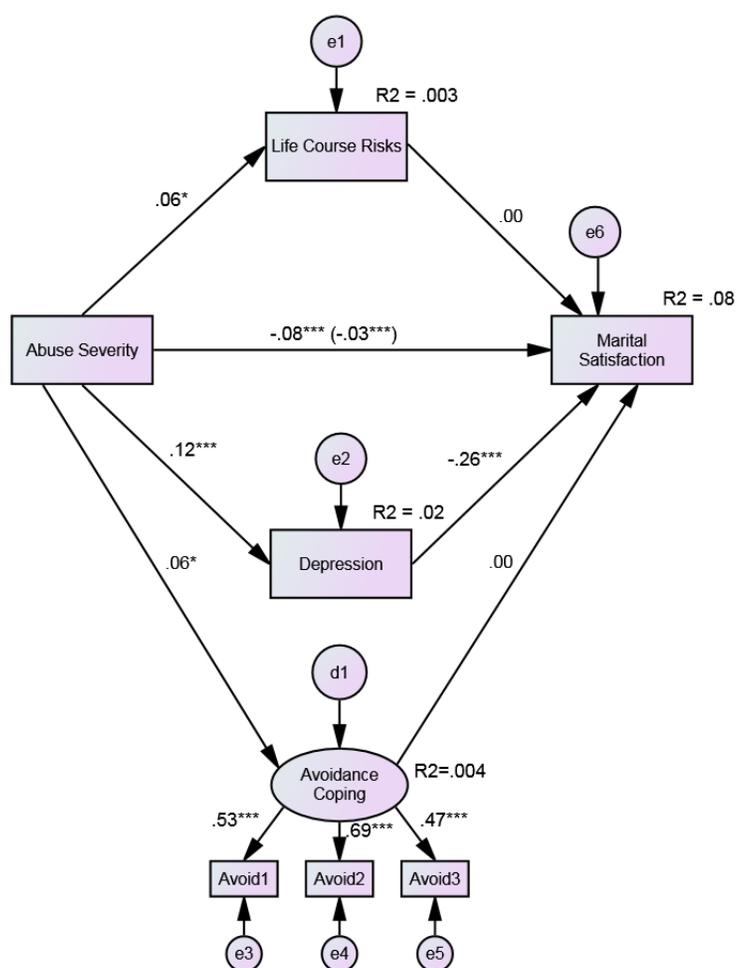
the direct and indirect effects for women).

Figure 4. Trimmed model (Model 6) for women with standardized path estimates. The standardized indirect path estimate is in parentheses.

Table 12

Results of Model 6: Direct and Indirect Effects in the Trimmed Model for Women

	Standardized	Unstandardized	*SE*	R^2
Abuse → Depression	0.12	0.35***	0.07	0.02
Abuse → Avoidance Coping	0.06	.008*	.004	.004
Abuse → Life Course Risks	0.06	0.02*	.008	.003
Abuse → Marital Satisfaction	-0.08	-0.19***	0.05	0.08
Abuse → Marital Satisfaction[a]	-0.03	-0.07***	NA	-
Depression →Marital Satisfaction	-0.26	-0.20***	0.02	-
Avoidance Coping → Marital Satisfaction	NA	NA	NA	-
Life Course Risks → Marital Satisfaction	NA	NA	NA	-

[a] Denotes indirect effect.
SE = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* *p* < .05, ** *p* < .01, ****p* < .001

For men, the proposed model was trimmed by setting the non-significant paths between abuse and avoidance coping, and between avoidance coping and life course risks and marital satisfaction to 0. Although the direct path from abuse to life course risks was attenuated by the covariates for the men, this path was retained, as it remained a trend. The trimmed model for men is Model 7 (see Table 13 for the comparison of the proposed and trimmed model, Figure 5 for the trimmed model with standardized path estimates, and Table 14 for results of the direct and indirect effects for Model 7 for men).

When the trimmed model for men was analyzed (model 7), the fit for the model was questionable (see Table 13 for fit statistics for model 7). The chi-square statistic for the model was large and significant. The CFI was not in an acceptable range indicating that the model was not a significant improvement over the baseline model. The PGFI was approaching an acceptable range, which indicated that when the degrees of freedom, complexity of the model, and parsimony were taken into account, the model was approaching a good fit. The RMSEA was in the moderate range indicating that the model fit the true population moderately. Examining the

Table 13

Fit Statistics for the Proposed Model and the Trimmed Model for Men

	χ^2_M (p value)	df_M	PGFI	CFI	RMSEA (90% CI)
Desired Value	NA ($\geq$ .05)	NA	$\geq$ .50	$\geq$ .95	$<$ .06 ($<$ .06 - $\leq$.08)
Model 5	90 (.000)	11	0.39	0.89	.06 (.05 - .07)
Model 7	92 (.000)	14	0.49	0.89	.05 (.04 - .06)

confidence interval for the RMSEA in the trimmed model indicated that the close-fit hypothesis was not rejected and the poor-fit hypothesis could be rejected.

The proposed model and the trimmed model for men were compared using the chi-square difference test and the difference between the chi-squares was distributed as chi-square with degrees of freedom of 3, which in this case was not significant. Therefore, the trimmed model was retained because it was more parsimonious than the full model, though both had questionable fit (see Table 13 for the comparison of the proposed and trimmed model, figure 5 for the trimmed model with standardized path estimates for women, and Table 14 for results of the direct and indirect effects for men).

For men, when the model was trimmed, all paths that were retained remained significant as well as the indirect path from abuse to marital satisfaction. This significant indirect effect suggested that depression remained a mediator in the association between abuse and marital satisfaction in the trimmed model with the covariates placed in the model.

3.5   Exploratory Analyses: Examining Types of Abuse Separately

Each type of abuse was examined separately for men and women by examining the associations found in the models that used the aggregate measures. Additionally, the life course risks were also tested separately for each type of abuse. That is, the age at the birth of the first
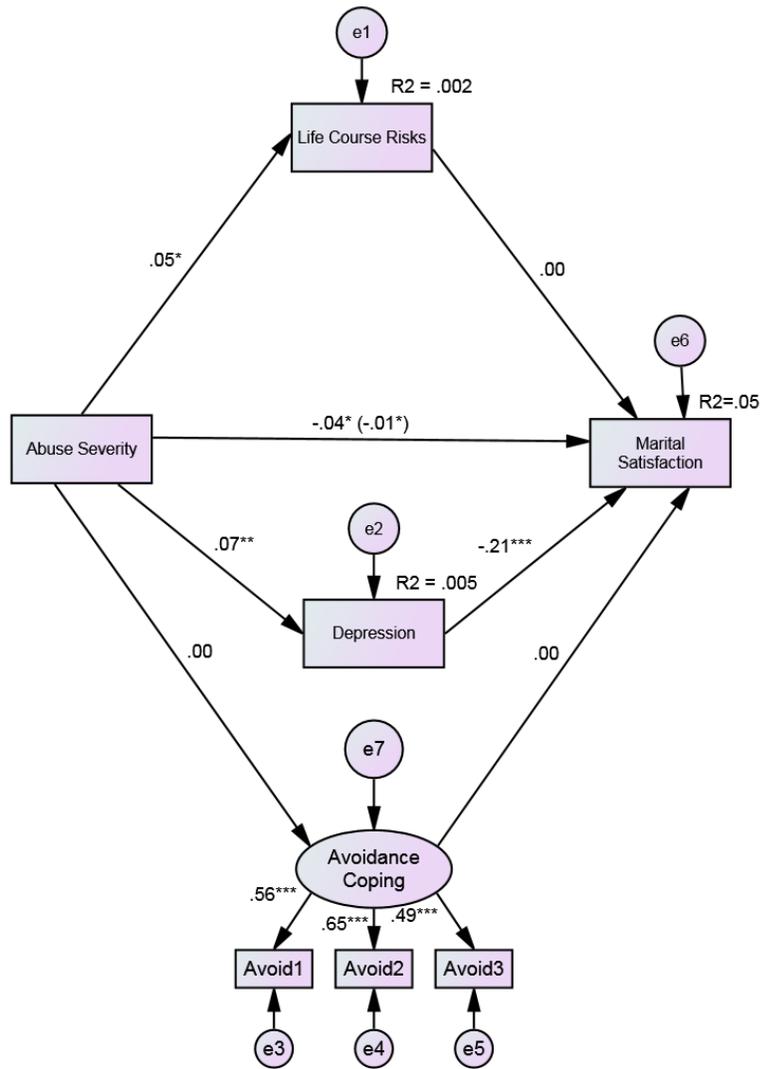
Figure 5. Trimmed model (Model 7) with standardized path estimates for men. The standardized indirect path estimate is in parentheses.

Table 14

Results of Model 6: Direct and Indirect Effects in the Trimmed Model for Men				
	Standardized	Unstandardized	*SE*	R^2
Abuse → Depression	0.07	0.19**	0.06	.005
Abuse → Avoidance Coping	NA	NA	NA	NA
Abuse → Life Course Risks	0.05	.003*	.001	.002
Abuse → Marital Satisfaction	-0.04	-0.10*	0.05	.05
Abuse → Marital Satisfaction[a]	-0.01	-0.03*	.01	NA
Depression →Marital Satisfaction	-0.21	-0.17***	0.02	-
Avoidance Coping → Marital Satisfaction	NA	NA	NA	NA
Life Course Risks → Marital Satisfaction	NA	NA	NA	NA

[a] Denotes indirect effect.
SE = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* $p < .05$, ** $p < .01$, ***$p < .001$

child, the age at the first marriage, and multiple divorces were tested in component analyses for

mediation with each type of abuse. Results were generally similar to the results when using the

severity of abuse as the predictor in the model. However, some interesting differences emerged.

The direct and indirect effects, standard errors and squared multiple correlations for endogenous

variables are summarized in Table 15 for women and Table 16 for men.

First, both sexual and physical abuse were significantly associated with marital

satisfaction for both men and women in the expected direction. Verbal abuse was also

significantly associated with marital satisfaction in the expected direction for women. However,

for men verbal abuse was not significantly associated with marital satisfaction. Second, as in the

originally tested hypotheses, depression was the only variable that demonstrated mediation, even

when the life course risks were tested separately for mediation. Results demonstrated that

depression mediated the association between physical abuse and marital satisfaction for both

men and women. Depression also mediated the association between verbal abuse and marital

satisfaction for women only. Further, depression mediated the association between sexual abuse

Table 15

Results by Abuse Type: Direct and Indirect Effects for Women				
	Standardized	Unstandardized	*SE*	R^2
Sexual Abuse → Marital Satisfaction	-.09	-.89***	.23	.007
Sexual Abuse → Depression	.02	.19	.30	.000
Depression → Marital Satisfaction	-.27	-.21***	.017	.07
Sexual Abuse → Marital Satisfaction	-.08	-.86***	.23	.08
Sexual Abuse → Marital Satisfaction[a]	-.004	-.04	.05	-
Physical Abuse → Marital Satisfaction	-.09	-.34***	.08	.009
Physical Abuse → Depression	.11	.52***	.10	.01
Depression → Marital Satisfaction	-.27	-.21***	.02	.07
Physical Abuse → Marital Satisfaction	-.06	-.23**	.08	.07
Physical Abuse → Marital Satisfaction[a]	-.03	-.11***	.03	-
Verbal Abuse → Marital Satisfaction	-.09	-.54***	.13	.009
Verbal Abuse → Depression	.11	.52***	.10	.01
Depression → Marital Satisfaction	-.27	-.21***	.02	.07
Verbal Abuse → Marital Satisfaction	-.06	-.36**	.13	.07
Verbal Abuse → Marital Satisfaction[a]	-.03	-.18***	.04	-
Sexual Abuse → Age at First Marriage	.07	.04***	.01	.005
Physical Abuse → Age at First Marriage	.06	.01**	.005	.004
Verbal Abuse → Age at First Marriage	.04	.02*	.007	.002
Verbal Abuse → Multiple Divorces	.06	.009**	.003	.004

[a] Denotes indirect effect.
SE = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* $p < .05$, ** $p < .01$, ***$p < .001$

and marital satisfaction for men. However, contrary to expectations, depression did not mediate the association between sexual abuse and marital satisfaction for women. When examining each life course risk separately, although the results did not demonstrate mediation, each type of abuse was significantly associated with the age at marriage in the expected direction for women. Additionally, verbal abuse was significantly associated with multiple divorces in the expected direction for women and physical abuse was significantly associated in the expected direction with multiple divorces for men.

Table 16

Results by Abuse Type: Direct and Indirect Effects for Men

	Standardized	Unstandardized	_SE_	R^2
Sexual Abuse → Marital Satisfaction	-.05	-1.1*	.472	.003
Sexual Abuse → Depression	.06	1.51**	.58	.003
Depression → Marital Satisfaction	-.21	-.17***	.02	.04
Sexual Abuse → Marital Satisfaction	-.04	-.83	.46	.05
Sexual Abuse → Marital Satisfaction[a]	-.01	-.26*	.13	-
Physical Abuse → Marital Satisfaction	-.06	-.19*	.08	.003
Physical Abuse → Depression	.05	.18*	.09	.002
Depression → Marital Satisfaction	-.21	-.17***	.02	.04
Physical Abuse → Marital Satisfaction	-.05	-.15*	.07	.05
Physical Abuse → Marital Satisfaction[a]	-.009	-.03[t]	.02	-
Verbal Abuse → Marital Satisfaction	-.04	-.21	.13	.001
Verbal Abuse → Depression	NA	NA	NA	NA
Depression → Marital Satisfaction	NA	NA	NA	NA
Verbal Abuse → Marital Satisfaction	NA	NA	NA	NA
Verbal Abuse → Marital Satisfaction[a]	NA	NA	NA	-
Physical Abuse → Multiple Divorces	.05	.006*	.002	.003

[a] Denotes indirect effect.
[t] Denotes a trend (_p_ =.054)
_SE_ = Standard Error
R^2 is the proportion of variance accounted for in the endogenous variable.
* _p_ < .05, ** _p_ < .01, ***_p_ < .001

4   DISCUSSION

The purpose of this study was to identify essential mediators that explain how childhood abuse

can affect the quality of intimate relationships in older age. This study drew upon the biological

embedding model, emotion regulation theory, and life course risk theory to suggest relevant

mediators, including life course risks, depression, and an avoidant coping style. Because a

marriage high in satisfaction provides many health and psychological benefits in older age,

which is a time when health commonly becomes more tenuous, this study aimed to explicate the

factors involved in this relationship in order to support the health and well-being of older

individuals who experienced early childhood abuse. This study is unique in that it examined the

impact of child abuse on marital satisfaction and possible mediating variables longitudinally in

older age as opposed to younger adulthood. This study also contributed to the literature by

examining the effects of abuse for both women and men, as the effects of child abuse for men, especially men in older age, is an understudied area.

A noteworthy strength of the study is that participants from the Wisconsin Longitudinal Study, which was used for the present project, are unique in that the sample is a randomly drawn community sample. That is, participants were not self-selected into a study of early childhood abuse. Therefore, although there were some limitations with the demographics of the sample and some evidence that suggests that the sample may not be representative of individuals who experienced more severe forms of sexual abuse, in generally the study sample is more likely to be representative of individuals with a history of childhood abuse in non-clinical samples, unlike much research in the area of childhood abuse, and thus reflect the associations for the population as a whole.

The basis for this investigation rested on the first hypothesis, which predicted that a history of abuse in childhood would be associated with late life marital distress. This hypothesis was supported for both men and women. The association is consistent with past research that links childhood abuse and marital satisfaction for both men (DiLillo, et al., 2007; Walker, et al., 2009) and women (Fleming, et al., 1999; Watson & Halford, 2010; Whisman, 2006). Notably, the present findings indicate that the connection lasts longer than previously known, into late middle age and the early years of old age. Although the effects were small, they were generally consistent with effect sizes from previous studies that link childhood abuse to relationship distress (Holman, et al., 2001).

The primary support for the mediational model concerned depression, which was the only tested mediator that met all criteria for mediating the association between childhood abuse and marital satisfaction for both men and women. Furthermore, the mediation effects were generally

similar for each type of abuse when examined separately. For women, the findings are consistent with previous research demonstrating that psychological functioning partially mediated the relationship between childhood abuse and relationship outcomes (DiLillo, et al., 2007). However, DiLillo, et al. (2007) found that childhood abuse was not significantly associated with psychological functioning for men, which is inconsistent with results from the current study. Comparing results of previous studies that examined the association of abuse and psychological functioning for men suggests that the impact of maltreatment on psychological functioning for men may not be evident until men are older (i.e., out of college) and in stable, long-term relationships (i.e., married as opposed to dating). The results of the current study lend support for this hypothesis, as all types of abuse were significantly associated with mid-life depression for men.

Although the measure of depression used in the current study, the CES-D, was a measure of state depression as it directed participants to respond to questions about depressive symptoms that occurred in the past week, it is reasonable to assume that this sample reflects more persistent patterns. In support of this assumption, research demonstrates that CES-D scores are more strongly correlated with long-standing symptoms of depression ($r = .86$ for men and $r = .79$ for women) than shorter depressive episodes ($r = .73$ for men and $r = .58$ for women; Spielberger, Ritterband, Reheiser, & Brunner, 2003). Other research that corroborates this point comes from the Baltimore Study of Aging. Researches found a moderate correlation between the CES-D and measures of persistent depressive symptoms when measured simultaneously and also found a moderate correlation when the CES-D was administered seven years prior to the persistent measure of depression. These findings support the assumption that the CES-D in the current

study most likely captured a persistent pattern of experiencing depressive symptoms rather than simply a week-long experience of depressive symptoms.

The finding that depression mediated the association between abuse and marital satisfaction for men and women and evidence that supports the assumption that depression may be pervasive across the life course is a significant contribution of this study. Beck and his colleagues consider the cognitive and affective symptoms of depression to be the most defining features of depression, such that cognitions such as being a failure or ideas that emphasize loss or deprivation are prevalent (D. A. Clark & Beck, 1988, p.23). These cognitions lead to behavioral manifestations of depression, such as social isolation and limited involvement in enjoyable activities. These behaviors that are associated with depression are important in maintaining depressive symptoms over time. It seems likely that the experience of child abuse contributes to the cognitive and behavioral manifestations of depression and thus, creates a situation in which depression may persist across the life-span.

The findings further suggest that this type of persistent depression for those who experienced childhood abuse may not be debilitating in terms of achieving major life goals; individuals finished high school, most attended some college, married, had children, and were employed. Instead, the impact might be more subtle, wherein the individual's functioning in major roles is normative, but other less noticeable difficulties may arise. Results suggest that one of these subtle problems may be in the area of marital satisfaction such that subclinical levels of depression may be associated with lower level of marital happiness throughout the life course. These subtle levels of depression are similar to findings of low levels of depression in parents who have experienced the death of a child an average of 18 years after the event (Rogers, Floyd, Seltzer, Greenberg, & Hong, 2008). Findings from bereaved parents indicate that a major source

of difficulty for these parents stems from their continued need for emotional support going unrecognized by family and friends, possibly as a result of their relatively normative level of functioning. Results of the current study suggest that individuals with a history of child abuse are similar to bereaved parents in this way. The negative internal experiences, such as the cognitive and affective symptoms associated with persistent depression, and the need for emotional support may be longer-lasting than previously understood and may cause problems that are not directly attributed to the precipitating event as time since the event occurred increases. Accordingly, the long-term effects associated with childhood abuse may go undetected by others for years in adulthood. Thus, there may be a need to better identify those individuals with subclinical depression who may not typically present for psychotherapy in order to support late life marital happiness.

It is also notable that in the follow-up analyses of separate types of abuse, depression mediated the relationship between each type of abuse and marital satisfaction for both men and women, but with the exception of childhood sexual abuse for women. The lack of mediation occurred because, in the current study, child sexual abuse was not significantly associated with depression for women. Although most previous research demonstrates that childhood sexual abuse is related to depression for women (Whiffen, Thompson, & Aube, 2000), the results from the current study are consistent with results from a study by Whiffen, Judd, and Aube (1999) that did not demonstrate a significant association between child sexual abuse and depression for women. Similar to the present study, Whiffen, Judd, and Aube (1999) examined a community sample of couples who were in stable, long-term marital/cohabitating relationships, most of whom remained in their first marriage. However, other research, including the later study from Whiffen, Thompson and Aube (2000) examined men and women who were in a relationship for

a shorter time period (i.e., an average of 3 years). Thus, there may be greater resilience in the sample examined for the current study than in non-selected samples than has been indentified in most studies on the effects of child abuse. In particular, the current sample reported significantly lower severity of childhood sexual abuse than participants who were eliminated from the study due to incomplete data. Thus, the relatively low severity of child sexual abuse in the current sample may explain the lack of a significant association between child sexual abuse and depression for women in this study.

The hypothesis about life course risks as outcomes of abuse and mediators of effects on late-life marital satisfaction was only partially supported. The severity of abuse was significantly and positively associated with experiencing more life course risks for women and was a trend for men. This effect is consistent with life course theory notions that early stressful events during a vulnerable developmental stage may set the stage for a cascade of negative events that continue to impact one throughout the life course. However, in this case, there was no indication that the effects impaired marital happiness much later in life. However, it should be noted that early marriage, one of the life course risks, was associated with divorce in this sample for both men and women, which is consistent with past research (Lehrer, 2008; Kristin A. Moore & Waite, 1981; Teachman, 2002). The link between early marriage and divorce in concert with the lack of an association between the life course risks and later marital satisfaction suggests that individuals were able to alter the impact of these life course risks by ending unhappy marriages earlier in the life course such that later marital satisfaction was unaffected. Thus, early relationship problems were unrelated to later life marital satisfaction, which demonstrates resiliency in this population.

While the occurrence of possible lifelong impacts of childhood abuse are suggested by the current findings, it is important to also recognize that the empirical associations between

early childhood abuse and later adult marital satisfaction are relatively weak, and that many potentially mitigating factors likely occurred by the time people reached midlife and older age. Most notably, life course research has shown that reparative interpersonal relationships are related to resiliency. For example, consistent with interpersonal theory, individuals who have a history of abuse and early interpersonal problems can often repair relationship difficulties through a corrective interpersonal experience, such as a trusting relationship with a partner, friend, or therapist. Research that demonstrates that having one positive parent-child relationship can offset the risks associated with family discord (Rutter, 1979) and that having a supportive marital relationship increases resilience in terms of psychological functioning (Quinton, Rutter, & Liddle, 1985) supports the protective quality of this reparative relationship. Thus, an experience such as a corrective relationship, can act as another life course event, according to life course theory, that can may promote resilience and alter one's trajectory or path in the direction of a satisfying marriage. Accordingly, previous research shows that people who experienced childhood maltreatment were able to form intimate, trusting relationships if they had also experienced a positive and corrective interpersonal experience which they perceived as high in social support (Pepin & Banyard, 2006). Future research could examine other resiliency factors that are related to adaptive functioning for individual who have a history of childhood abuse, especially the variables involved in supporting stable and healthy relationships for these individuals.

The impact of IQ and family SES as potential confounds with abuse effects for the men also deserves attention. In this regard, the experience of abuse seems to occur in a broader context of disadvantage that leads to the life course risks examined here. It might be impossible to disentangle these associations because they certainly cannot be controlled in the natural

environment. The occurrence of overlap here, thus, serves as a reminder that the experience of abuse can be entrenched in other life experiences that set a context for lifelong difficulties.

Although the composite of life course risks did not mediate the effects of abuse on marital distress, the separate risk events were associated with abuse in several expected ways. For women, marrying early was associated with each type of abuse, which is consistent with the notion that early marriage might be an "escape from stress" for the women. Accordingly, other research shows that adolescent girls with weak emotional bonds with their parents are likely to marry relatively early (Amato, et al., 2008). Furthermore, marriage as an escape from a toxic family of origin might be particularly relevant for women of the WLS cohort, who entered adulthood in the early 1960s. At this historical time, other options for moving from the parents' home, such as employment or going to college, were not as common as these routes are currently. Additionally, although marrying early was positively correlated with divorce, it did not predict relationship dissatisfaction later in life. As noted above, in some cases, divorce might be an empowering event that breaks the link between abuse and early marriages that are dysfunctional. In other cases of early marriage, the marriage might be a high quality, nurturing relationship. If so, this might be the type of reparative relationship that also can break the link between abuse and life course problems.

Regarding sexual abuse experience by the men, the lack of an association with marital dissolution is surprising given the research that shows that divorce was twice as likely for individuals who experienced childhood abuse than for those who did not report abuse, and men who experienced childhood sexual abuse were the most at risk group (Colman & Widom, 2004). The discrepancy from the current findings may be a result of the level of severity of the sexual abuse across studies. The sample used in the Colman and Widom (2004) study were identified

through court-substantiated cases of child abuse. It may be that more severe forms of childhood sexual abuse, such as those that are documented and confirmed by the judicial system, may have more detrimental impacts on the relationships of men. However, men who experience sexual abuse that may be relatively less severe or occurred less frequently, may be more resilient in relationships over time than research shows. Another possible explanation for this result is that some research has suggested that men who experienced childhood sexual abuse may not demonstrate problems with forming relationships, but may have difficulty being authentic and assertive in their relationships (Whiffen, et al., 2000). It may be that the type of relationship problems that men experience are different from those that women may experience who have been abused as children and that the life course risks that were measured in the present study did not accurately capture risks for men.

Furthermore, for men, only verbal abuse was associated with early marriage. It may be that for men, physical abuse and sexual abuse may end relatively early in childhood as they become physically bigger and stronger in adolescence. However, verbal abuse may continue into the late teens and young adulthood for men. Therefore, the escape from stress hypothesis might apply primarily for verbal abuse for men as opposed to other forms of abuse because the verbal abuse may be more likely to be a stressor at the time when men are of the age to transition out of the home. Also, men might have a greater variety of options for leaving home than do women. Although this possibility was not examined in the present study, men in this cohort who experienced various types of abuse may have also left the home by joining the military, moving for employment, or relocating for post-secondary education to escape from stress. Therefore, it may be that other forms of abuse were associated with leaving the home for men that was not captured in the life course risk variable that was used in the current study.

The hypothesis that avoidance coping would mediate the association between abuse and marital satisfaction was not supported. However, the results suggested an interesting alternative role for coping, where the effect of abuse on avoidance coping influences marital satisfaction through a connection with depression. For women, abuse was associated with greater use of avoidance coping. This pathway is consistent with past research indicating that the use of avoidance coping is common in individuals who have been abused (Spaccarelli & Fuchs, 1997). Testing the individual components of the full model for both men and women demonstrated that avoidance coping was associated with lower levels of marital satisfaction. However, when testing the full model, avoidance coping was no longer significantly associated with marital satisfaction. Given that depression was the only mediator that was associated with marital satisfaction in the model for men and women, the association between depression and marital satisfaction seemed to account for the initial association between avoidance coping and marital satisfaction in the separate models. This association is consistent with past research indicating an indirect path from avoidance coping to relationship problems through psychological distress. For example, Fortier, et. al. (2009) supported a path model with severity of childhood sexual abuse predicting disengagement coping, which in turn predicted trauma symptoms, which then predicted re-victimization in relationships. These indirect effects are also consistent with research demonstrating a path from child abuse to adult experiences of re-victimization, re-victimization to avoidance coping, and avoidance coping to depressive symptoms (Sullivan, Meese, Swan, Mazure, & Snow, 2005). The present study could not actually explore this indirect pathway because there was no measure of coping available that preceded the measure of depression. But the associations that emerged suggested a useful focus for future research.

The association between avoidance coping and each type of abuse was also examined. Consistent with hypotheses, verbal abuse and physical abuse were related to avoidance coping for women. However, these associations were fairly weak. Contrary to expectations, sexual abuse was unrelated to avoidance coping for women and neither type of abuse alone predicted avoidance coping for men. There is some evidence in the literature that the coping processes that an individual chooses to employ change over the life span (Kim, Greenberg, Seltzer, & Krauss, 2003). Research on coping in aging populations generally demonstrates that as one ages, more palliative or accommodative methods of coping, such as acceptance or cognitive restructuring, are used more often than active coping methods (Brandtstadter & Renner, 1990). Active coping can be functional, such as using problem solving, or dysfunctional, such as engaging in behavioral avoidance strategies to cope. While avoidance may be employed shortly after the abuse as a coping strategy, new and adaptive coping strategies may be learned over time such that avoidance strategies may no longer be employed. Thus, considering results of previous research suggesting that the use of avoidance as a coping strategy diminishes as one ages, the current findings suggest that to the extent that avoidance is still used in older age, it may not have an effect on marital satisfaction. Another unexpected result was that the question on the coping measure that assessed avoidance coping through "wishful thinking" (i.e., "say to yourself 'this isn't real'") seemed to have a stronger association with marital distress than the other coping items, and the causal model did not account for this unique association. This item on the coping measure may capture a tendency within individuals who use this type of coping to attempt to detach from reality, or dissociate, more that the other avoidance coping questions. This presumption is consistent with research that demonstrates that dissociation is particularly detrimental to relationship functioning in deployed soldiers who experienced combat-related

trauma (Goff, Crow, Reisbig, & Hamilton, 2007). It seems likely that dissociation may be an extreme form of avoidance and thus be even more harmful than less severe forms of the behavioral or cognitive avoidance coping strategies that the other items on the coping questionnaire measured.

Although abuse was significantly associated with late life marital satisfaction, the correlations were slightly smaller than anticipated and specifically smaller for men. Investigations that demonstrated stronger associations between child abuse and marital satisfaction, such as the Holman et al. (2009) study, generally examined younger participants than the current study. Comparing the strength of the associations from the current study to previous findings suggest that the effect of early abuse on intimate relationships may attenuate with age. Another possible explanation of the small effects in the current study is the high level of marital satisfaction in the sample. High levels of marital satisfaction in older couples are consistent with past research (Bookwala & Jacobs, 2004; Carstensen, Graff, Levenson, & Gottman, 1996). As the couple ages and levels of marital satisfaction may be high, the effect of abuse on interpersonal relationships may weaken over time. This notion is consistent with the socioemotional selectivity theory, which purports that as the couple ages, there is a bias towards attending to the positive aspects of close relationships (Carstensen, Isaacowitz, & Charles, 1999). Thus, more emphasis is placed on favorable features of close relationships later in life due to the perception of limited time. For the individuals in this sample who were around retirement age and whose other social relationship may be narrowing, they may be more motivated to attend to favorable marital relationship factors and hence, score higher on marital satisfaction measures regardless of whether or not they experienced childhood abuse.

4.1   Limitations and Future Directions

There are several limitations of the present study. First, the demographics of the sample were limited in a few ways. The sample was restricted to Caucasian participants who all graduated from high school in a Midwestern state in the 1950s and who were in heterosexual marriages. Therefore, it is unclear whether the findings would generalize to participants from other ethnic groups, with varying levels of education, and who are in other types of partnerships. Findings may also be subject to cohort effects and thus may be specific to this historical cohort of people. The results may not generalize as well to the present day. For example, child abuse is now more openly discussed than it was when participants in the current sample were children. Research demonstrates that disclosure of abusive experiences and factors surrounding disclosure, such as support and validation, impact future psychosocial functioning (Ruggiero, et al., 2004). When future research is able to examine these factors in more recent cohorts as they approach older age the possible historical cohort effects might be revealed. Likewise, because of the central aim of the study, all participants were married in older age. Accordingly, it is unclear whether the study included those participants whose interpersonal relationships were more greatly affected by their abuse histories and thus may not have been married in older age, if at all. This situation is unlikely given research demonstrating that a history of abuse was unrelated to whether or not participants were married at a given time (Taylor, 2009). However, future research should investigate ethnically diverse samples and broaden the outcome variable to include different types of interpersonal relationships, such as co-habitating relationships and same-sex partnerships in order to evaluate the generalizability of the results.

Second, as mentioned previously, the coping measure used in the current study was a broad and global measure of avoidance coping. In one sense, the measure may have been too

broad in that results implicated wishful thinking as an explicit type of coping specifically related to marital satisfaction on older age. However, in another sense, the measure may have been too specific in that it did not include more functional types of coping, such as palliative measures, that research shows individuals in older age may rely upon more heavily (Brandtstadter & Renner, 1990). Future studies should examine coping mechanisms such as acceptance, cognitive restructuring, and positive reframing in order to determine if these types of coping may serve as a buffer for the negative effects of child abuse on marital satisfaction in older age or perhaps as a buffer for depression, which may indirectly impact marital satisfaction in older age.

Third, the model used in the current study was unable to account for the plausible relationship between coping and psychological distress that is commonly demonstrated in the literature (Fink & Shapiro, 2013; Grant, et al., 2013). Based on research and the results from this study, there is likely an important path from coping to psychological distress that predicts later life marital satisfaction. If this path exists, it suggests that coping is a crucial point of intervention to treat depression in midlife in order to support later relationships for individuals with a history of abuse. Future research should examine the association between coping and psychological distress among individuals who have abuse histories. Furthermore, research could also investigate how the types of coping mechanisms one enacts may vary as one ages to further explicate the relationship between coping, psychological distress, and marital satisfaction throughout the life course.

Fourth, although the life course risks measured in the current study were applicable for men and women, results demonstrated that the risks examined in this study were more applicable for women, and possibly more applicable for women who were graduating high school in the late 1950s. It is likely that the risks did not fully capture the type of risks in which men who have a

history of abuse are more likely to engage, such as aggression or isolation (Whiffen, et al., 2000). It is also possible that the risks are somewhat dated and may not accurately capture the most likely risks in which women in the current generation engage that may be detrimental to later relationship satisfaction, such as risky sexual behavior and alcohol use (Wilsnack, Wilsnack, Kristjanson, Vogeltanz-Holm, & Harris, 2004). Future research should attempt to delineate these risks for both men and women in an attempt to prevent future relationship distress.

Fifth, the major finding of the study was that mid-life depression mediated the relationship between early childhood abuse and marital satisfaction approximately 50 years after the abuse experience(s). Although depression is one of the most common outcomes of abuse, other forms of psychological distress are also associated with abuse, such as anxiety and posttraumatic stress disorder. Based on the current findings, it seems likely that other types of psychological distress may also be important intervening factors in the relationship of abuse to late life marital satisfaction that were not examined in this study. Future research should investigate the most common psychological outcomes of abuse and their association to late life marital satisfaction. Results of such investigations may elucidate other important points of intervention to support the health of late life relationship for those who have a history of child abuse.

Finally, the current study focused on mediators of distress and problems often associated with the experience of early childhood abuse. However, the general theme of the findings was one of resilience and/or recovery from stressful childhood events. The current study did not examine factors that may promote resiliency such that individuals who experienced early childhood abuse eventually had satisfying marriage later in life. Future longitudinal research is

needed to understand factors that promote life course trajectories that may involve early stressful interpersonal events, such as abuse, that culminate in satisfying marriages later in life.

4.2   Conclusions

The overall picture that emerges is one of resiliency over the life course, even for individuals with a history of early childhood abuse. Likewise, the study demonstrated that recovery from an event as stressful as childhood abuse continues to occur after middle age and into older adulthood. Thus, early adult relationship problems, including divorce, are not necessarily indicative of a pattern of relationship problems that persist across the life course into older age. Instead, results generally support the assertion that the effects of abuse on marital satisfaction are fairly weak in older age. Results also indicate that depression may be an important point of intervention in order to support healthy relationships later in life for those individual with a history of abuse. There are numerous available evidence-based therapeutic interventions for depression, including Cognitive-Behavior Therapy for Depression, Acceptance and Commitment Therapy (ACT) for Depression, and Interpersonal Therapy for Depression. With the availability of psychotherapeutic interventions in combination with effective medication, results suggest that treating depression in mid-life may be a viable point of intervention to support satisfying relationship later in life. Given the association between abuse and avoidance coping for women, Acceptance and Commitment Therapy may be particularly well-suited for women in older age who are depressed because the focus of the therapy is on more palliative coping mechanisms that tend to increase with age and because of the focus that Acceptance and Commitment therapy places on decreasing experiential and behavioral avoidance. Nevertheless, treating depression in mid-life may be a feasible route to help

individuals who have a history of early childhood abuse to have satisfying and protective

relationships later in life.

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