

THE EFFECTS OF INCONSISTENT PARENTING  
ON THE DEVELOPMENT OF UNCERTAIN SELF-ESTEEM  
AND DEPRESSION VULNERABILITY

By

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## ABSTRACT

Although there are numerous reports of how adverse parent-child interactions during development might contribute to problems with self-esteem and later risk for depression, less research has focused on the potential deleterious effects of parenting inconsistency during development. The purpose of the current study was to test whether reports of inconsistent parent-child interactions during development are associated with uncertain self-esteem and depression vulnerability in adulthood. In order to test this possibility, a previously depressed group (high-risk) of college students and a never depressed group (low-risk) of college students were compared on measures of trait self-esteem, self-esteem certainty, parental bonding (care and over-protection), and a new retrospective measure of parenting consistency (Consistency of Parenting Scale; COPS; Luxton, 2007). Structural equation modeling (SEM) was used to test a series of structural and latent means models that examined whether inconsistent parenting contributes to the development of uncertain self-esteem and depression risk--above and beyond the influence of negative parenting dimensions alone (i.e., low care and overprotection). The results indicated that only consistency of mother care was associated with certainty of self-esteem in the high-risk group and only mother consistency of control was associated with self-esteem certainty in the low-risk group. The high-risk group also reported higher levels of father inconsistency of care and lower levels of both trait self-esteem and self-esteem certainty compared to the low-risk group. Although there was not a general moderating effect of gender on the association between the parenting variables and

self-esteem certainty, gender by depression status model tests indicated that the association between inconsistent mother control and certainty of self-esteem was only among low-risk women and the association between inconsistent mother care and self-esteem certainty was only among high-risk women. Both high-risk women and high-risk men reported higher levels of father inconsistency of care compared to low-risk women. These findings are important because they suggest that inconsistent parenting practices might have an adverse influence on the development of the self-esteem of children, which may make children more vulnerable for depression later in life. Limitations and future directions are also discussed.

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## INTRODUCTION

Although there are numerous reports of how adverse parent-child interactions during development might contribute to problems with self-esteem (Coopersmith, 1967; Garber, 1992; Rosenberg, 1965) and later risk for depression (Ingram, Miranda, & Segal, 1998; Roberts & Monroe, 1999), less research has focused on the potential deleterious effects of parenting inconsistency during development. One possibility is that inconsistent parenting behaviors during development, such as inconsistent praise, control, or reinforcement may engender an uncertain sense of self-worth, which may make some people more vulnerable for depression later in life. The idea that uncertain self-esteem may contribute to depression vulnerability is suggested by research that has found that previously depressed adults are more uncertain of their reported trait self-esteem than never depressed adults (Luxton, Ingram, & Wenzlaff, 2006; Luxton & Wenzlaff, 2005). Although the results of research thus far suggest that self-esteem uncertainty may be an important factor in depression vulnerability, it is unclear whether uncertain self-esteem may have developmental origins and is a true precursor to depression or whether uncertain self-esteem arises during depressive episodes and is simply a byproduct of the mood disturbance.

The purpose of the current study was to test the possibility that reports of inconsistent parent-child interactions during development are associated with uncertain self-esteem and depression vulnerability in adulthood. In order to test this hypothesis, a previously depressed group (high-risk) of college students and a never depressed group (low-risk) of college students were compared on measures of trait

self-esteem, self-esteem certainty, report of parenting behaviors, and a new retrospective report of parenting consistency. Structural equation modeling (SEM) was used to conduct a series of two groups (high risk vs. low risk and female vs. male) and a four group (high risk women, high risk men, low risk women and low risk men) confirmatory factor analyses (CFAs) and structural analyses in order to examine the association between reports of inconsistent parenting, trait self-esteem, certainty of self-esteem and depression risk.

## LITERATURE REVIEW

The concept of self-esteem has long been considered an important factor in depression. For instance, Freud (1917/1986) posited that a drop in self-esteem is a defining characteristic of melancholia, and that this loss of self-esteem differentiates melancholia from mourning. Later, other psychoanalytic theorists suggested that loss of self-esteem plays a causal role in the onset and maintenance of depression (Bibring, 1953; Fenichel, 1945; Rado, 1928). Many psychoanalytic theorists also posited that problematic self-esteem develops early in childhood as the result of inadequate parenting experiences.

More recent theories of depression also implicate self-esteem as an important variable in the onset and maintenance of depression. Brown and Harris's (1978) psychosocial model of depression suggests that self-esteem is an intervening variable between social adversity and depression and is therefore crucial in determining whether generalized hopelessness and subsequent depression develops in the face of stressful events (e.g., loss, disappointment, etc.). Cognitive theories of depression

(Abramson, Metalsky, & Alloy, 1989; Beck, Rush, Shaw, & Emery, 1979; Ingram, Miranda, & Segal, 1998) also suggest that negative cognitions about the self are involved in the etiology and maintenance of depression. Moreover, Beck and others have suggested that negative cognitions of depression-prone individuals are commonly acquired initially in parent-child interactions. For example, if parents are disparaging of their child's worth, it is likely that the child will internalize the disparagement. For such individuals, future defeat or disparagement is likely to reactivate previously internalized thoughts of inferiority and worthlessness, and therefore lead to hopelessness and depression.

In sum, a number of influential theories consider self-esteem to be an important aspect of depression. Moreover, several of these theories posit that self-esteem has critical etiologic importance in the disorder and that problems with self-esteem can be traced back to adverse parent-child interactions during development. In this regard, research efforts aimed at elucidating the nature of problematic self-esteem and how early interactions with caretakers might impact its development have important implications for understanding depression vulnerability in childhood as well as adulthood.

### *The Self-Esteem Construct*

Self-esteem is a widely studied construct whose meaning is often subject to considerable semantic ambiguity. It is therefore necessary to clearly define the construct. The term self-esteem was first introduced by William James (1890), who considered self-esteem as a person's evaluation of the degree that one's aspirations,

ideals, and values are being met. James emphasized the importance of personal values in the determination of emotional responses to self-evaluation, and suggested that self-esteem is determined by the ratio of our actualities (successes) to our supposed potentialities (pretensions). He also noted that people tend to stake their self-esteem on success in particular domains of their lives and not others, and he also viewed self-esteem as both a personality trait and a psychological state. In other words, people have a typical or average level of self-esteem that is consistent across time but their sense of self-esteem might be higher or lower than this average level, depending on how a person believes they are doing in the domains on which their self-worth is staked.

In his influential book *The Antecedents of Self-Esteem*, Stanley Coopersmith (1967) defined self-esteem as an attitude and an expression of worthiness derived from a sense of competence, virtue, significance, and personal strength. According to Coopersmith, individuals initially learn how worthy they are from their parents and therefore suggested that self-esteem is an acquired trait. Based on a behavioral point of view, Coopersmith outlined several principle factors that determine the development of high self-esteem in childhood. These factors include unconditional acceptance of children by the parents, clearly defined and enforced limits to behavior, respect and latitude for individual action and interpretation within the defined limits, and modeling of the respect and worthiness of self that children see in their parents. Coopersmith thus proposed a link between parenting style and the level of self-esteem in children and adolescents.

Perhaps the most broad and frequently cited definition of self-esteem is Rosenberg's (1965), who defined self-esteem as a "favorable or unfavorable attitude toward the self" (p. 15). Rosenberg emphasized that the amount of self-esteem an individual has is proportional to the degree to which that person sees themselves as measuring up to a core set of self values that are influenced by one's culture, society, family and interpersonal relationships. Although Rosenberg generally considered self-esteem to be a personality trait, he also acknowledged that self-esteem might be subject to long-term fluctuations as well as short-term instabilities in reaction to specific external events such as success or failure (Rosenberg, 1986).

A common feature of these definitions is that self-esteem involves a self-evaluative process. This self-evaluative process is generally thought to be part of, but distinct from, the broader self-concept, which also includes cognitive, behavioral, affective, aspects of the self (Blascovich & Tomaka, 1991). It is the final end point of the evaluative process that results in a level of self-esteem--a dimension of how positive or negative is a person's sense of self-worth. A number of theoretical and empirical arguments have suggested, however, that self-esteem is more complex than a basic determination of whether a person's sense of self-worth is relatively high or low (Roberts & Monroe, 1992). For instance, studies have shown that people vary in the temporal stability of their self-esteem and that instability of self-esteem may be a better predictor of depression onset than trait level of self-esteem (e.g., Butler, Hokanson & Flynn, 1994; Kernis, Grannemann, & Mathis, 1991.; Roberts & Kassel, 1997; Roberts & Monroe, 1992). Other research has suggested that self-esteem is

characterized by not only espoused attitudes about self-worth but by the certainty of those attitudes (e.g., Luxton, Ingram, & Wenzlaff, 2006; Luxton & Wenzlaff, 2005). Moreover, while some researchers conceptualize self-esteem as reflecting global self-evaluations (e.g., Coopersmith, 1965; Rosenberg, 1965), others have emphasized that self-esteem is multi-faceted such that some people may evaluate themselves highly in some areas but not others (e.g., Fleming & Courtney, 1964; Markus & Nurius, 1986). Self-esteem has also been conceptualized as a self-evaluation process that is both conscious and nonconscious to the individual (e.g., Brewin, 1989; Epstein, 1983). That is, there may be aspects of self-evaluation that are unintentional and outside of conscious awareness (e.g., implicit self-esteem; Farnham, Greenwald, & Banaji, 1999).

Although there are many caveats of self-esteem, most depression theorists consider self-esteem to be a conscious evaluation of one's global sense of self-worth. This sense of self-worth is generally thought to be trait-like, but also subject to fluctuations in response to external events and mood states. In the following section, the empirical data that have examined the association between self-esteem and depression is discussed in detail.

#### Self-Esteem and Depression: Empirical Investigations

According to most traditional self-esteem accounts of depression, low trait self-esteem is presumed to predispose individuals to depression. Empirical investigations of this presumption, however, have yielded inconclusive results. Although it is evident that during depressive moods people typically report low self-

esteem (Bernet, Ingram, & Johnson, 1993; Roberts & Kassel, 1996), a number of prospective studies indicate that low trait self-esteem does not precede a depressive episode nor persist after one--making it unclear whether negative self-appraisals contribute to the disorder or are simply byproducts. For example, one line of research has examined the level of self-esteem of previously depressed individuals, who are therefore likely to be at high risk for future episodes. With few exceptions (e.g., Altman & Wittenborn, 1980; Cofer & Wittenborn, 1980), most of these studies show that self-esteem returns to normal levels along with mood (Billings & Moos, 1985; Hamilton & Abramson, 1983; Lewinsohn, Steinmetz, Larson, & Franklin, 1981). These studies suggest that low self-esteem may simply be a consequence of depression, the end result of dysphoric mood, impaired functioning, and negative cognitions about the self, world, and future.

In an effort to predict future depressive symptoms or episodes, other studies following from diathesis-stress models of depression have examined level of self-esteem but in interaction with stressful life events. Typically, these studies are based on the idea that high self-esteem acts as a buffer against the impact of stressful life events (Ingram, Slater, Atkinson & Scott, 1990; Ziller, Hagey, Smith, & Long, 1969) such that individuals with high self-esteem are thought to be more likely to mitigate the deleterious effects of life stressors by rejecting, limiting, or offsetting negative events. On the other hand, when individuals with low self-esteem encounter stressful life events, these individuals are presumed to appraise stressors and their consequences more negatively and are thus more likely to succumb to depressed



mood. Because the buffering hypothesis predicts that low self-esteem will be associated with the onset of depression more “strongly” in individuals who have experienced stressful life events than those who have not (Roberts & Monroe, 1999), level of self-esteem is usually considered to either mediate or moderate the effects of a negative life event on depression (Brown & Harris, 1978).

In order to test the potential mediating or moderating role of trait self-esteem in depression, researchers have employed prospective designs that have examined individuals’ level of self-esteem as well as experiences with stressful life events. Results from these studies, however, have been inconsistent. For example, Miller, Kreitmen, Ingham, and Sashidharan (1989) found that low self-esteem was associated with an increased risk for developing depression following major life event stressors for individuals who had experienced a previous episode of depression. Moreover, Brown, Andrews, Bifulco, and Veiel (1990) also investigated the association between negative self-evaluations and depression by conducting a two year longitudinal study of 404 women who were initially nondepressed but were considered at-risk because of various social factors (such as low socioeconomic status, etc.). These researchers found that negative evaluation of the self was associated with the onset of depressive episodes but only in the face of stressful life events.

On the other hand, Lewinsohn, Steinmetz, Larson, and Franklin (1981) investigated depression vulnerability by measuring depression-related cognitions and self-esteem of participants from a large community sample. These researchers re-assessed the participants up to a year later and found that those who became

depressed during the course of the study did not differ in self-esteem at the initial assessment compared to the nondepressed controls. Longitudinal studies have also shown that self-esteem returns to normal levels during remission of depressive episodes (Billings and Moos, 1985; Hamilton & Abramson, 1983). For instance, Billings and Moos (1985) examined the personal and social-environmental characteristics of remitted, partially remitted, and nonremitted depressed patients and found that remitted participants reported improvement in self-esteem and coping responses to post-treatment stressors. This trend of results is consistent with a number of studies that indicate that most negative biases observed in depression are likely to go away during remission either following treatment (Bowers, 1990; Hamilton & Abramson, 1983) or after the passage of time (Dohr, Rush, & Bernstein, 1989).

#### Possible Explanations for the Difficulty in Detecting Low Trait Self-Esteem Prior to Depression

Although the findings of many self-esteem studies challenge the etiological importance of trait level of self-esteem in depression, it might be that problems with self-esteem do indeed precede depression, but are difficult to detect. For example, most traditional self-esteem theories of depression are based on the idea that low self-esteem is a relatively stable and enduring personality trait that renders people vulnerable for depression. The general failure to find low trait self-esteem among individuals who become depressed or who are in remission, however, raises the question as to why negative self-esteem attitudes should be considered any different than other negative cognitions that are prevalent during depression but disappear in

remission. Cognitive diathesis-stress models of depression suggest that depressogenic cognitive structures remain dormant until activated by stressful events (Beck, 1967; Ingram, 1984; Ingram et al., 1998). In this regard, negative cognitions about the self, including attitudes about self-esteem, might be latent but reactive to adverse experiences. This idea is supported by mood priming research that has shown that negative mood states reactivate negative thinking in previously depressed individuals but not in individuals who have never been depressed (Persons, & Miranda, 2002; Roberts & Kassel, 1996; Segal & Ingram, 1994).

It may also be the case that a drop in self-esteem precedes depression but only by a brief interval (Roberts & Monroe, 1999). That is, the self-esteem of a depression prone individual may drop suddenly in response to a stressful event. In this sense, a drop in self-esteem and depression might co-occur in a downward spiral, making it difficult to tease them apart (Teasdale, 1988). Another possibility is that problems with self-esteem might contribute to depression, but are difficult to detect because they are masked by thought suppression efforts. A number of studies indicate that previously depressed individuals engage in unusually high levels of chronic thought suppression (Wenzlaff & Bates, 1998; Wenzlaff, Rude, Taylor, Stultz & Sweatt, 2001) and that previously depressed individual's intentional thought suppression efforts may mask a tendency to engage in negative thinking (Beevers, Wenzlaff, Hayes & Scott, 1999; Wenzlaff & Wegner, 2000). For example, some researchers have suggested that individuals who are at risk for depression are trying to inhibit negative thoughts about themselves, and therefore, might report normal levels of self-

esteem, but be uncertain of their self-esteem. Indeed, recent research has indicated that previously depressed individuals are more uncertain of their self-referent attitudes and that this uncertainty is positively correlated with chronic thought suppression (Luxton & Wenzlaff, 2005).

In sum, the empirical support for the causal importance of low trait self-esteem in depression is inconclusive. Although efforts to determine whether low trait self-esteem is a precursor to depression has proved to be a challenging endeavor, investigators have begun to examine other aspects of people's self-esteem that may render them vulnerable to depression. In particular, research in this area has suggested that certain aspects of self-esteem, such as lability and uncertainty about one's self-worth may play a more central role in the etiology of depression than trait level of self-esteem (Luxton & Wenzlaff, 2005; Roberts & Monroe, 1999).

#### *Labile Self-Esteem and Depression Vulnerability*

A number of well designed studies now evidence that previously depressed individuals show greater self-esteem lability (i.e., short term fluctuations in self-esteem) than do never-depressed individuals (Butler, Hokanson & Flynn, 1994; Roberts & Kassel, 1997; Roberts & Monroe, 1992). Typically, self-esteem lability is determined by calculating the standard deviation of an individual's current self-esteem rating across multiple assessments obtained in naturalistic settings (Kernis, Grannemann, & Mathis, 1991). Some researchers have suggested that fluctuations in self-esteem may be attributed to reactivity to both internal fluctuations of mood (Campbell, Chew, & Scratchley, 1991; Roberts & Monroe, 1994) and external factors

(daily events such as life stress). This idea is supported by longitudinal studies that have shown that labile self-esteem acts as a diathesis for depressive reactions to life stress among persons who are at-risk for depression (Hayes, Harris, & Carver, 2004; Kernis, Grannemann, & Mathis, 1991).

Studies that have tracked the self-esteem of depressed, previously depressed, and never depressed controls typically show that the mean level of self-esteem among previously depressed individuals does not differ significantly from that of never-depressed individuals (Butler, Hokanson & Flynn, 1994). The mean level of self-esteem among currently depressed individuals, however, is usually much lower than both previously depressed and never-depressed individuals. This research also indicates that both currently depressed and previously depressed individuals show significantly greater self-esteem lability than never depressed controls. Most importantly, these studies suggest that self-esteem lability, more than trait level of self-esteem, increases vulnerability to depression, especially for individuals with a history of depression. It is important to note, however, that the degree of self-esteem lability appears to be most pronounced among persons with initially low levels of depressive symptoms. Thus, it appears that self-esteem lability may play an important role in the onset of depression, but may have less importance in the maintenance of depression. Indeed, clinically depressed people who view their self-esteem as stable seem to be less responsive to treatment, especially when they maintain feelings of self-worthlessness (Roberts, Shapiro, & Gamble, 1999)

These self-esteem lability studies suggest that people with unstable self-esteem are more reactive to daily negative events and may thus be at high risk for full blown depression when they experience a stressful event or chain of stressful events. Thus, high levels of self-esteem lability among previously depressed individuals seem to suggest that the self-esteem of such individuals is fragile. In this regard, it seems likely that fluctuations in self-esteem should be associated with uncertainty of self-esteem. It is possible that uncertainty makes self-esteem especially susceptible to situational factors, thereby leading to an unstable sense of self-worth (Roberts & Gotlib, 1997). It may also be that fluctuations in self-esteem make it difficult to develop a sense of self that is clearly and confidently defined, internally consistent, and relatively stable against the vicissitudes of everyday life (Campbell et al., 1996; Kernis, et al. 2000). In any case, the high levels of self-esteem variability observed among previously depressed individuals suggests that these individuals should be relatively uncertain of their overall sense of self-esteem and that this uncertainty may be a marker for depression vulnerability.

#### *Uncertain Self-esteem and Depression Vulnerability*

A recent study by Luxton and Wenzlaff (2005) investigated the possibility that previously depressed individuals' positive self-appraisals belie uncertainty about the self. These researchers asked participants to complete the Rosenberg Self-Esteem Scale (SES; Rosenberg, 1965) and then a self-esteem certainty measure that required participants to refer to their SES responses and immediately rate how fast their responses came to mind, how certain they were of their responses, and how likely

they were to change their responses in the future. Participants also completed self-report measures of past and present experiences with depression. The results of the study indicated that although previously depressed individuals did not differ from never-depressed individuals in their reported levels of trait self-esteem, previously depressed individuals were more uncertain about their beliefs than were never-depressed individuals.

The Luxton and Wenzlaff (2005) study also indicated that uncertain self-esteem was associated with high levels of self-reported excessive reassurance seeking among previously depressed individuals. Excessive reassurance seeking, defined as excessive attempts to elicit feedback from others in order to assure self-worth, has been shown to be linked to social rejection and increased risk for depression (Coyne, 1976; Joiner, Alfano, & Metalsky, 1992; Joiner & Schmidt, 1998). Luxton and Wenzlaff also found that even when self-esteem uncertainty was statistically controlled for, the difference in reassurance seeking between previously depressed and never depressed individuals was eliminated. This suggests that uncertain self-esteem may drive a tendency to seek reassurance from others, which may subsequently lead to risk for depression.

In a second study, Luxton, Ingram, and Wenzlaff (2005) investigated the idea that doubts about self-worth might contribute to doubts about potential personal future accomplishments and possibly serve to undermine opportunities for future success. Specifically, study participants were asked to complete the Rosenberg Self-esteem Scale and then rate the certainty of their responses. Participants also

completed a measure that assessed future event likelihood attitudes (Andersen, 1990). The results indicated that although previously depressed individuals did not differ from never-depressed individuals in their reported levels of trait self-esteem, previously depressed individuals were significantly more uncertain about their self-esteem. Furthermore, previously depressed individuals were more certain about the likelihood of negative events and less certain about the likelihood of positive events than never depressed individuals. These results suggest that the seemingly adaptive self-appraisals of at-risk individuals are relatively precarious, and that at-risk individuals maintain a relatively pessimistic bias toward the likelihood of future events.

Taken together, these studies suggest that the high levels of self-esteem uncertainty reported by previously depressed individuals reflect an underlying cognitive vulnerability that belies their self-reported level of trait self-esteem. Moreover, although it is possible that self-esteem may suddenly drop in response to stressful life event or co-occur with drops in mood during the onset of depression, a previously depressed person's sense of self-worth may be uncertain well before a stressful life event. In this regard, uncertain self-esteem may be an important mediator of depression vulnerability. The results of these preliminary studies, however, are tempered by their correlational nature. That is, it is unclear whether uncertain self-esteem reported by previously depressed individuals is the result of having been in a depressed state or whether an uncertain sense of self-worth may indeed precede the onset of depression. In both of the aforementioned studies, although previously



depressed college students reported greater uncertainty about their self-esteem than did currently dysphoric and never-depressed individuals, currently dysphoric individuals also reported high levels of self-esteem uncertainty. This finding raises the possibility that uncertainty about self-esteem is a cognitive scar left of from a previous episode of depression that persists during remission. On the other hand, uncertain self-esteem may precede the onset of depression and play a critical etiological role in depression.

#### *The Nature of Uncertain Self-Esteem*

One way to conceptualize how uncertain self-esteem may have etiological importance in depression is to compare self-esteem to the hull of a ship. At first glance, the hull might appear strong and quite capable to handle any stress thrown against it. Upon closer inspection, however, one might find that the hull is covered with cracks that suggest that its ability to buffer the stress of the sea is precarious. Self-esteem certainty can be thought of, then, as a gauge of how structurally sound is a person's sense of self-worth, and how well that person may fare when they experience a sufficient amount of stress that challenges their sense of self-worth. Thus, uncertain self-esteem may reflect an important diathesis for depressotypic reactions to life stress.

There are a number of ways that uncertain self-esteem might render a person vulnerable to depression. For one, it is possible that an uncertain sense of self-esteem might make it difficult for an individual to invoke and implement coping strategies when negative life events occur. That is, personal doubts about self-worth might

contribute to the belief that one lacks the agency to overcome and sustain efforts to mitigate the negative effects of personal set-backs. Furthermore, uncertain self-esteem may contribute to depression risk by taxing people's social interactions. Recall that Luxton and Wenzlaff (2005) found that uncertain self-esteem was positively correlated with excessive reassurance seeking. To the extent that a person is uncertain of his or her self-esteem, he or she may seek excessive reassurance from others in the hopes of regaining or bolstering their sense of self-worth. These excessive efforts may eventually lead to social rejection that may further decrease self-esteem and eventually lead to full blown depression. Indeed, previous research has found that excessive reassurance seeking is likely to lead to social rejection (Coyne, 1976; Joiner, Alfano, & Metalsky, 1992) and that people who engage in excessive reassurance seeking are more likely to develop depressive symptoms over time (Joiner & Metalsky, 2001; Joiner & Schmidt, 1998). Furthermore, several researchers have suggested that depression prone persons are highly dependent on external sources of self-worth (Barnett & Gotlib, 1988). Because depression prone individuals may rely heavily on external sources (dependence on the love, praise, and affection of others) to shore up their sense of self-worth, such individuals may suffer from reductions in self-worth with loss or threatened loss of those sources (Roberts & Kassel, 1997).

In summary, data suggest that uncertain self-esteem is associated with depression risk, and raises the possibility that uncertain self-esteem may play an important role in the onset of depression. It is unclear, however, what factors

contribute to uncertain self-esteem and whether uncertain self-esteem is indeed an operant precursor to depression. In this regard, understanding of the developmental origins of uncertain self-esteem may shed light on the role that uncertain self-esteem plays in depression vulnerability. A number of theoretical and empirical literatures have suggested that problematic parent-child interactions during development contribute to cognitive vulnerability and depression. Thus, it is possible that particular aspects of parent-child interactions might contribute to the development of uncertain self-esteem. Before discussing what specific characteristics of parent-child interactions may contribute to uncertain self-esteem, a review of the major developmental theories of depression vulnerability is provided.

#### Theoretical Perspectives of the Development of Depression Vulnerability

There are a number of theoretical perspectives that provide frameworks for understanding how early development and parent-child interactions may set the stage for problematic self-esteem and depression proneness. Several of these theories, including object relations theory (Baldwin, 1992; Westin, 1991), attachment theory (Bowlby, 1980), and several cognitive theories (Abramson, Metalsky, & Alloy, 1989; Beck, 1967; Ingram et al., 1998; Segal, 1988), describe how adverse early interactions with caretakers may lead to the formation of negative emotional and cognitive structures. These theories thus provide descriptions of the potential mechanisms of development of depressogenic cognition, including problems with self-esteem. Although the theories discussed here differ from each other in some

regards, they all describe interactions between parent and child as contributing to negative cognitive styles.

### *Object Relations Theories*

Object relations theories (Baldwin, 1992; Horner, 1991; Jacobson, 1964; Klein, 1948; Kernberg, 1976; Westin, 1991) derive from psychoanalytic theory, and like the psychoanalytic view, adult personality characteristics are thought to be determined by early childhood experiences. In contrast to Freud's emphasis on biological instincts as the driving force behind personality development, object relations formulations posit that people are driven by their social needs. That is, human beings are viewed as social in nature and interpersonal relationships are thought to have a major influence on development (Aron, 1996). According to object relations theories, people form internal representations of the relations with “objects”, which can be people (mother, father, others) or things (transitional objects), hence the name “object relations”. People begin to internalize their relationships with significant others as infants, which influences their experience of subsequent relationships and their sense of self. This process takes place in predictable stages and phases, with representations of self and others becoming more complex and differentiated over the course of development.

Object relations theories have been expanded and integrated with other theoretical perspectives of development, including cognitive theory (see Westin, 1991 for a review). Westin (1991) suggests that individuals at-risk for psychopathology develop working models that contain conflicting elements, some of which may not be

in conscious awareness of the individual. In this regard, depression is thought to result from working models that distort the processing of information about others as well as the self in interaction with others. Baldwin (1992) also suggests that working models not only involve views of oneself but also of views of others in interaction with the self, and that these views become working models that are internalized within the person. These working models or “relational schemas” include representations of oneself and others and include a script for an expected pattern of interaction that is derived through generalization from repeated similar interpersonal experiences (Baldwin, 1992). For instance, if the parents of a child consistently and repeatedly show praise in response to their child’s achievements in school, the child is likely to develop a relational schema that represents approval for success in scholastic performance. In the future, similar interactions will be expected because the child has the impression that her parents will evaluate her with approval. Thus, the child will likely develop a self-schema as a competent, confident, and as a worthy person.

### *Attachment Theory*

Stemming from the objects relations perspective, Bowlby’s attachment theory (1969, 1973, 1980) elaborates on the concept of internal working models of people and relationships. Bowlby posited that attachment behaviors result from an evolutionary biobehavioral system. This system is thought to have evolved as an adaptive means of providing a survival advantage by keeping young children in close proximity to care providers during times of threat and danger. Other attachment researchers have expanded on this by suggesting that the goal of the attachment

system is not simply physical proximity but, more generally, to maintain “felt security” (Bischof, 1975; Bretherton, 1985). Deviations from felt security activate the child's attachment behaviors that lead to reestablishment of close contact of the caregiver who provides protection. Well-functioning attachment relationships allow young children to progressively explore their environments, knowing that they have a secure base to which to return in times of threat (Ainsworth, Blehar, Waters, & Wall, 1978).

Bowlby's attachment theory also describes social and personality development. In this regard, the early relationship with caretakers is thought to have a profound impact on the child's developing personality, and that the nature and quality of this early relationship is largely determined by the caregiver's emotional availability and responsiveness to the child's needs (Bowlby, 1973). For instance, children with caretakers who are consistently accessible and supportive will develop cognitive representations, or internal “working models”, that consist of beliefs and expectations about whether the caretaker is someone who is caring and responsive, and also whether the self is worthy of care and attention. On the other hand, caretakers who are unresponsive or inconsistent will produce insecure attachments that lead to working models that include abandonment, self-criticism, and excessive dependency. Moreover, caretakers who are critical and rejecting are likely to send a message to their children that they are unworthy.

The internal working model that develops during childhood becomes evident by an individual's beliefs of self, others, and their social world (Diehl, Elnick,

Bourbeau, & Labouvie-Vief, 1998). These working models are later carried forward into other close relationships (Hazan & Shaver, 1994) where they guide expectations, perception, and behavior (Bowlby, 1973). For example, if as a child believes that his or her needs are not important enough to be met by the parent, then as an adult these same beliefs may engender thoughts and feelings of insecurity or inadequacy in other interpersonal relationships. Thus, interpersonal relationships throughout the lifespan are inextricably linked to the internal working models formed in childhood. Indeed, Bowlby (1979) stated that attachment relations characterize "human behavior from the cradle to the grave" (p. 129).

A number of researchers have specifically examined the association between maladaptive attachment styles and risk for depression. For example, studies by Armsden, McCauly, Greenberg, Burke, and Mitchell (1990) and Kobak, Sudler, and Gamble (1991) found that depressed adolescents have less secure attachments to parents than nondepressed adolescents. Other research has suggested that adolescents who experience stressful life events are more likely to become depressed if they had insecure attachments to their parents compared to adolescents with secure attachments, whereas secure attachment seems to buffer against the impact of stressors (Hammen et al, 1995; Kobak et al.,1991). Furthermore, several studies have shown a link between attachment style and self-esteem. For instance, Feeney and Noller (1990) found that individuals with secure attachment styles in adult relationships also had higher levels of self-esteem compared to individuals with insecure attachment styles. Moreover, Collins and Read (1990) found that insecure

attachment anxiety in adult relationships was associated with lower self-esteem, lower self-confidence, and lack of assertiveness.

### *Cognitive Models*

According to Beck's (1967, 1976, 1983) cognitive theory of depression, chronic stressful experiences over the course of development (e.g., abuse, poverty, parental discord) or traumatic life events (death of a parent, rape) are thought to provide the basis for forming depressogenic cognitive schemata ("schemas", or "basic beliefs") about the self, the future, and the world. Subsequent exposure to negative life events can reactivate these beliefs, especially when the new events resemble the original circumstances from which they developed (Beck et al., 1979; Kovacs & Beck, 1978). Following from this perspective, several studies have suggested that negative recollections of parent-child relationships are associated with depressogenic cognitions in adulthood (Blatt, Wein, Chevron, & Quinlan, 1979; Ingram, Overbey, & Fortier, 2001; Whisman & Kwon, 1992). Moreover, traumatic stressful events during childhood, such as maltreatment in the form of physical or sexual abuse, have been linked to depression and lowered self-esteem (Browne & Finkelhor, 1986; Kendall-Tackett, Williams, & Finkelhor, 1993). These studies suggest that physical abuse by caretakers may cause encoding about the nature of others as pain producing, untrustworthy, and neglectful. Ultimately, such negative experiences are likely to generate feelings of derogation and unworthiness that become deeply encoded self-structures (Batagos & Leadbeater, 1995; Ingram et al., 1998).



The hopelessness model of depression (Abramson, Alloy, & Metalsky, 1988, 1990; Abramson, Metalsky, & Alloy, 1989) also describes the origins of depression vulnerability. Rose and Abramson, (1992) suggested that children who experience adverse life events, such as parental maltreatment, attempt to discover the causes of those events so that they can attach meaning to them. Moreover, children have a tendency to make internal attributions for all events such that, if a child is being maltreated by a parent, the child will likely believe that he or she is the cause of the maltreatment. In some cases, this internalizing process will result in the development of a negative attributional style that subsequently places a child at risk for depression. Furthermore, negative events will also have a negative effect on the child's self-concept as well as optimism for the future. The negative events, however, must be repetitive and occur in relationships with caretakers. According to the hopelessness model, persistent negative events will produce a pattern of attributions for those events, and over time become global and stable, eventually becoming trait-like. This process subsequently sets the stage for hopelessness depression when stressors occur in the future, especially if individuals believe that they were responsible for those events (Abramson, Seligman, & Teasdale, 1978). Although the learned hopelessness model of depression does not specifically implicate self-esteem as a causal factor in depression, Metalsky, Joiner, Hardin, and Abramson (1993) have suggested that high self-esteem buffers against depressive reactions by "breaking the hypothesized link" between a depressogenic attributional style and the development of hopelessness following the occurrence of negative events.

In sum, these psychodynamic, developmental, and cognitive theories all suggest that the foundations for negative self-concepts are formed in childhood. Although these theories differ in their perspectives, these theories and their elaborations are useful for understanding the possible mechanisms for how early experiences in life may lay the foundation for problematic self-esteem and future risk for depression. Working from within these theoretical frameworks, investigators have examined the characteristics of parent-child interactions, including specific parenting behaviors that may induce problematic self-esteem and depression vulnerability.

#### The Role of Parenting in the Development of Problematic Self-Esteem

Research has suggested that various dimensions of parenting are associated with a wide variety of developmental outcomes, including risk for depression. These dimensions constitute a number of specific parenting behaviors that might have a particularly important influence on a child or adolescent's developing sense of self. Although there are conceptual variations in how researchers describe parenting dimensions, there is also a considerable conceptual overlap between them. For instance, some of the parental control behaviors that constitute parental overprotection also describe parental demandingness. In this section, several of most influential lines of parenting research are discussed with a focus on the aspects of parenting that might be particularly germane to the development of problematic self-esteem and depression vulnerability.

### *Parenting Dimensions*

One way that various parenting dimensions are described is through distinct topological descriptions of parenting styles. This approach has a long history and has included such dimensions as responsiveness/unresponsiveness (Freud, 1933; Schaefer, 1959), acceptance/rejection (Symonds, 1939), emotionally involved/uninvolved (Baldwin, 1948), control/noncontrol (Schaefer, 1959), and restrictiveness/permissiveness (Becker, 1964). Perhaps the most well-known and influential topological approach for understanding parenting styles, however, is that proposed by Diana Baumrind (Baumrind, 1971, 1978, 1989). Through several studies, Baumrind originally identified three primary topologies of parenting style: authoritative, authoritarian, and permissive. These topologies reflect different naturally occurring patterns of parental values, practices, and behaviors.

Baumrind (1978) suggested that authoritative parents are warm and responsive and provide their children with affection and support in their goals and aspirations. They are nurturing, less restrictive, and their disciplinary methods are supportive, rather than punitive and thus promote autonomy. They exert moderate parental control and exert firm control only if their children diverge from their values or standards of conduct. In contrast, authoritarian parents exert a high level of control over their children by restricting autonomy and deciding on the appropriate behavior for their child (Baumrind, 1966). Authoritarian parents also enforce discipline and demand unquestioned adherence to their demands, and rarely express praise or affection. Children of authoritarian parents tend to be at risk for depression, have low

self-esteem, low initiative, and problems making decisions in adulthood (Baumrind, 1991; Bigner, 1994; Wenar, 1994; and Whitfield, 1987).

Baumrind suggested that permissive parents are responsive to their children but low in demandingness. Permissive parents are lax in their expectations, set very few rules, and are usually dismissive and unconcerned. Maccoby and Martin (1983) later added a fourth dimension to Baumrind's topology; indulgent. These researchers describe indulgent parents as similar to permissive parents in their level of control and demandingness, but they are more responsive and warm.

Baumrind (1991) has factor analyzed data on these topologies and reduced parenting styles to two core dimensions of parenting: parental responsiveness and parental demandingness. Parental responsiveness (also referred to as parental warmth or supportiveness) refers to "the extent to which parents intentionally foster individuality, self-regulation, and self-assertion by being attuned, supportive, and acquiescent to children's special needs and demands" (Baumrind, 1991, p. 62). Parental demandingness (also referred to as behavioral control) refers to "the claims parents make on children to become integrated into the family whole, by their maturity demands, supervision, disciplinary efforts and willingness to confront the child who disobeys" (Baumrind, 1991, pp. 61- 62).

These descriptions of parenting styles capture a number of specific parenting behaviors that may have a particularly important influence on the development of self-esteem and depression risk. For instance, demanding parents might send strong messages to their children about how to judge self-worth. Parents who set standards

for approval that are based on ability and achievement rather than effort may signal that self-worth depends on meeting these standards. When self-worth is highly contingent on meeting such standards, uncertainty about self-esteem may arise if the standards are unclear or the prospect of meeting them is uncertain (Crocker & Wolfe, 2001). Moreover, parents who are very critical towards their children may negatively impact their children's self-worth and increase risk for depression. This idea is supported by a study by Johnson, Petzel, Dupont, and Romano (1982) who found that college students with elevated depression scores on the Beck Depression Inventory (BDI) reported that their parents evaluated them more negatively than people with lower BDI scores. These researchers, however, did not find a difference in the self-reported perceptions of their parents' ideals for them. These results suggest that it may not be how high parents set goals, but rather how critical parents are in evaluating attempts to reach those goals that may increase risk for depression.

A number of other studies that have used retrospective measures of parenting have indicated that a high level of parental control is associated with depression and problematic self-esteem (Amanat & Butler, 1984; McCranie & Bass, 1984). For instance, McCranie and Bass (1984) investigated whether retrospective reports of parental-child-rearing practices involving rejection and inconsistent expression of affection and control might be associated with current experiences with dependency and self-criticism among a sample of nursing students. These researchers found that high scores on dependency were associated with perceptions of the mother as having had expectations of conformity to authority rather than achievement as well as having

exercised strict control and as being the more dominant parent. High scores on self-criticism were associated with both the mother and father as “emphasizing” strict control, expressing inconsistent affection, and expecting achievement and performance rather than passive conformity. Although McCranie and Bass did not assess depressive symptomology or self-esteem per se, the findings suggest that these types of child rearing practices might inhibit the formation of healthy self-esteem in children resulting in experiences in adulthood that may confer vulnerability for depression.

Other research has suggested that harsh, judgmental and imposed high standards of parents are not as good a predictors of adult depression as are parenting styles that are lacking in support, nurturance, and affection (Blatt, Wein, Chevron, & Quinlan, 1979; Jacobson, Fasman, & DiMascio, 1975; Raskin et al, 1971; Lamont et al, 1976). For example, Rosenberg (1965) found that extreme parental indifference was associated with low self-esteem among adolescents and that it may be indifference that is more deleterious to self-esteem than parental punitiveness or parental criticism.

The parental bonding literature (Parker, 1983) also provides a perspective on the nature of parent-child interactions. According to attachment theory, adaptive bonding between parents and children has a critical impact on the development of an individual’s sense of security as well as behavior, adjustment, and emotion regulation throughout life (Ainsworth, 1989). Although there are many aspects of parent-child interactions that might impact the quality of the bond between parent and child,

Parker (1983) suggests that parental lack of care and overprotection are two fundamental components of parental bonding. Lack of parental care is defined as an overt rejection and criticism on the part of parents. Lack of care behaviors such as making a child feel unwanted could produce a low sense of self-worth and belief that others have little to offer (Bemporad & Romano, 1992). Overprotection refers to high levels of parental anxiety and inappropriate intrusiveness into children's lives (Parker, 1983). Overprotective behaviors such as extreme control over children may result in dependency needs and lack of autonomy needed to overcome adversity. According to Parker, these dimensions of parental bonding capture the central aspects of most parenting behaviors and also form the basis of interpersonal interactions with people in general. Thus, parental lack of care and overprotective behaviors are likely to have a profound impact on a child's emerging self-concept and view of his or her social world, as well as depression proneness. Indeed, a number of studies have indicated that retrospective reports of lack of parental care and parental overprotection are associated with depressotypic cognitive styles, and are therefore potential risk factors for depression (Gerlsma et al., 1990; Blatt & Homann, 1992; Gotlib, Mount, Cordy, & Whiffen, 1988; Ingram & Ritter, 2000; Parker, 1983; Zemore & Rinholm, 1989; Ingram, Overbey, & Fortier, 2001).

One of the most popular measures of parental bonding is the Parental Bonding Instrument (PBI: Parker et al., 1979). The PBI measures the two core aspects of parental bonding (care and overprotection). A number of studies have used the PBI in order to specifically examine how recollections of parenting might be associated with

depressive cognitive styles. For example, Whisman and Kwon (1992) investigated whether retrospective reports of low parental care and paternal overprotection among college students would be related to depression, and whether the relationship would be mediated by dysfunctional attitudes and depressogenic attributional style. Although these researchers did not specifically assess self-esteem, they did find that perceptions of low parental care were associated with dysfunctional attitudes (e.g., “If I fail at work, then I am a failure as a person”) and depressogenic attributional styles. Lower parental care was associated with greater severity of depressive symptoms and stronger endorsement of depressogenic attitudes and attributional style. Moreover, after statistically controlling for the influence of these cognitive variables, the association between parental care and depressive symptoms was eliminated. These results suggest that depressogenic attitudes and attributional style mediate the relationship between depression and parental care.

Similarly, Ingram, Overbey, and Fortier (2001) investigated the associations between reports of parental bonding and depressogenic cognition by assessing retrospective reports of parental bonding, positive and negative automatic thinking, and affective symptoms among two samples of university students. Their findings indicated that, even after statistically controlling for depressive symptoms, poor parental bonding was associated with more dysfunctional automatic thinking. Also, individuals who reported positive maternal bonding experiences reported more positive and less negative automatic thoughts than those who reported poor maternal bonding. These researchers also found evidence that paternal overprotection was



associated with a greater number of negative self-statements, although this relationship was not as powerful as in the association between maternal care and negative self-statements.

Brewin, Firth-Cozens, Furnham, and McManus (1992) also used a retrospective design and found that medical students with stable high levels of self-criticism reported low levels of maternal care and high levels of maternal overprotection during childhood. Although there was a similar but nonsignificant pattern with fathers, high trait self-criticism was more frequent when relationships with both parents were poor. Taken together, these studies suggest that reports of lack of care and overprotection behaviors are associated with depressogenic cognitive styles including negative cognitions about the self.

#### *Observation and Imitation*

Another way that parenting behaviors might influence the development of depressogenic cognitive styles is by the observation and imitation of those behaviors (Bandura & Walters, 1963). Over the course of development, cognitive representations of the self, the world, and the future are likely to be modified by learning and experiencing (Kovacs & Beck, 1978). For example, young children may learn to think negatively about themselves by observing important others such as mother, fathers, and teachers. Indeed, several studies have suggested that children may directly observe maladaptive ways in which to interact with others and witness poor skills for preventing or resolving interpersonal disputes. These learning experiences may engender a lack of social competence and contribute to the

generation of stressful interpersonal life events (Adrian & Hammen, 1993; Hammen, 1991).

Children also learn to value themselves from how others regard them. In particular, the development of children's sense of self-worth may be influenced by how children view the perceptions of their parents. One of the most influential theories that describes this process is Cooley's (1902) theory of the looking-glass self. The looking glass hypothesis (Cooley, 1902; Mead, 1934) refers to a person's beliefs about how he or she is perceived by others. That is, the views of oneself are thought to form from the perceptions of significant others about oneself and the communication of these perceptions. Such beliefs are often called "metaperceptions" because they involve "perceptions of perceptions" (Cook & Douglass, 1998). For instance, while growing up, if a child consistently receives the message from a parent that he or she is incompetent, it may influence that child's opinion about his or her own self-worth. Indeed, parents' perceptions about children who may be sensitive to dysfunctional cognitive processes appear to be communicated to and internalized by these children (Ingram, 2001). For instance, Cole, Jacquez, and Maschman (2001) found that children's appraisals of their competence across several domains corresponded with their parent's appraisals of child competence in those domains.

A number of studies have suggested that offspring of depressed parents, particularly mothers, might be especially at-risk for developing depressogenic cognitive styles themselves. For instance, Goodman, Adamson, Riniti, and Cole (1994) found a significant association between negative affective statements of

depressed mothers and lower perceived self-worth among their children. Further, Garber and Robinson (1997) found that children of depressed mothers, particularly offspring of mothers with a more chronic history of depression, reported a more negative attributional style and lower self-worth than low-risk children. The difference in attributional style and perceived self-worth between high and low risk children remained even when children's current level of depressive symptoms was controlled for.

In a more recent study, Garber and Flynn (2001) examined the contribution of maternal history of depression, three aspects of mothers' cognitive style (self-worth, attributional style, and hopelessness), mothers' parenting style, and stressful life events to depressive cognitions in 240 young adolescents. Mothers and adolescents were assessed annually over a three year period starting in the 6th grade. The study results indicated that maternal history of depression was associated with all three types of negative cognitions in offspring. Moreover, the combination of maternal parenting style and stressful life events significantly increased the association with teens' negative cognitions beyond that of maternal depression. In particular, adolescents' self-worth was also significantly predicted by low maternal acceptance and adolescents' attributional style was associated with maternal attributional style for child-focused events. Garbin and Flynn also found that children's attributional style for events happening to them was predicted by their mother's attributional style for these same events, suggesting that negative cognitive styles can be transmitted from parent to child.

It is important to acknowledge that there are many factors that might contribute to depressogenic cognitive styles among the offspring of depressed parents. For example, a mother's chronic stress and depression that make it difficult for the mother to sustain positive, enhancing, and responsive interactions with their offspring (Jaenicke, et al., 1987). Moreover, depressed mothers may be less involved with and less affectionate toward their children (Weissman & Paykel, 1974), and more irritable, hostile, and critical toward their children (Cox, Puckering, Pound, & Mills, 1987). Thus, it is more likely that a combination of variables might render children of depressed mothers vulnerable for depression, rather than the direct observation of the depressogenic behaviors or attitudes.

#### *Consistency of Parenting*

Another aspect of parent-child interactions that might render a child at-risk for depression is inconsistent parenting. Most of the studies that have examined inconsistent parenting have focused on inconsistent discipline and its influence on a number of outcomes such as conduct disorder (Brody et al., 2003; Patterson, 1976), eating disorder (Ross & Gill, 2002), and academic achievement (Dornbusch, et. al., 1987). Only a few studies, however, have examined the potential effects of inconsistent discipline or other types of inconsistent parenting behaviors on the development of negative cognitive styles and depression risk. In one such study, Schwarz and Zuroff (1979) asked a sample of never depressed, formerly depressed, and currently depressed female college students to complete retrospective questionnaire measures of mother and father's parental conflict, relative decision

making power (dominance), and inconsistency of love. In order to assess inconsistency of love, these researchers constructed an inconsistency of love measure (one that targeted mothers and one that targeted fathers) that consisted of items that described the target parents as labile or variable in attitude toward their child. For instance, "My father could be warm and affectionate, but sometimes he said cold, cutting things to me". Schwarz and Zuroff found that a combination of high conflict, paternal dominance, and paternal inconsistency of love was associated with increased vulnerability to depression. Schwarz and Zuroff speculate that paternal inconsistency of love may reduce or make expectancies for love unstable. Although inconsistency in the mother's love was found to be less influential than inconsistency in father's love, maternal inconsistency was associated with increased vulnerability to depression, especially in low-conflict families in which the daughter may be more likely to identify with the mother. Although this study is limited by a small sample size, it does suggest that inconsistency of love may be an important variable in itself or in interaction with other parent-child interaction variables.

More recently, Yoshizumi, Murase, Murakami, and Takai (2006) developed and tested a 12 item parenting consistency scale called the Parenting Scale of Inconsistency that aims to assess parent's inconsistency of moods, behaviors, and attitudes towards children. Five hundred and seventeen college students in Japan completed this retrospective self-report measure. The results indicated that inconsistency was associated with the Care and Overprotection scores of the Parental Bonding Instrument as well as depression scores as measured by the Depression Scale

of the General Health Questionnaire. These preliminary findings suggest that inconsistent parenting is a unique construct apart from parenting bonding and that a history of inconsistent parenting has implications for the mental wellbeing of children.

It is possible that certain types of inconsistent parenting behaviors and interactions might engender an uncertain sense of self-worth, which may make some people more vulnerable for depression later in life. For example, inconsistent parental control behaviors might result in inconsistent autonomy among children or adolescents that might in turn foster an uncertain sense of self-worth. Indeed, needs for autonomy and individuation have been viewed as central to identity formation, especially in the adolescent years (Damon, 1983). Moreover, uncertainty of self-esteem may result from inconsistent parental expectations and communication of those expectations. Furthermore, it may be the case that inconsistent praise and acknowledgment from parents will influence a child's metaperceptions in such a way a child or adolescent becomes uncertain of themselves. Because people observe how they are perceived by others and construct their sense of self from these observations, inconsistent messages of approval from parents may foster an uncertain sense of self-worth.

The type of inconsistent parenting that may be most likely to engender uncertainty in a child's sense of self-worth may not only be inconsistent adaptive or maladaptive parental behaviors, but a synergy of both extremes. That is, it is likely that a combination of both inconsistent positive and negative parenting behaviors

might be more likely to foster uncertainty of self-worth than consistent negative parenting behavior. For instance, a parent's indifference towards their child's achievements is likely to have negative effect on a child's sense of self-worth. A parent who on one day shows praise for an effort and another day disparages their child for an equal effort is likely to engender an uncertain sense of self-worth in that child.

### A New Measure of Parenting Consistency

Several popular parenting measures include subscales that assess inconsistency of parenting in the context of parental disciplinary behaviors and availability. For instance, the 104 item version of the Children's Report of Parental Behavior Inventory (CRPBI; Schludermann and Schludermann, 1970; Schaefer, 1965) includes a 5 item inconsistent discipline subscale. Moreover, the Weinberger Parenting Inventory (WPI; Weinberger, Feldman, & Ford, 1989) includes an inconsistent parenting subscale that measures the tendency of parents to respond to their child's behavior according to their own needs, and therefore to be highly variable in responding to the same behavior of their children. Until recently, there has not been a measure that specifically assesses the consistency of a wide array of parenting behaviors.

Luxton (2006) has developed the Consistency of Parenting Scale (COPS), a new retrospective self-report measure designed to assess the consistency of the core dimensions of parenting behaviors. The COPS was constructed of modified items from existing parenting measures, including the CRPBI and PBI, as well as new items

that reflect typical parenting behaviors (See Appendix A for more information on COPS scale development).

For the present study, the COPS enabled the test of the potential effects of inconsistent parenting on the development of problematic self-esteem, and potentially shed light on the developmental processes of depression vulnerability. It is important to acknowledge that although parenting inconsistency may be associated with uncertainty about self-esteem, it is possible that reports of negative parenting in general may be associated with uncertain self-esteem. It may be the case, however, that inconsistent parenting accounts for a unique portion of the variance that predicts uncertain self-esteem that is not accounted for by negative parenting in general. In consideration of this possibility, it was necessary to examine both parenting inconsistency and negative parenting behaviors in order to ascertain the unique contribution of inconsistent parenting in the development of uncertain self-esteem.

#### *Summary and Overview*

Depression proneness appears to be influenced by a number of parenting factors and behaviors that occur during development. Controlling and unsupportive parenting behaviors have been shown to be associated with the development of low self-esteem and risk for depression. Moreover, the parenting dimensions of low care and overprotection encompass a number of specific behaviors that have been linked to the development of problematic self-esteem and depression. Maltreatment and neglect may also contribute to problematic self-esteem via their effect on the encoding of negative beliefs about the self and others. Furthermore, children and



adolescents may develop negative cognitive styles via the observation of maladaptive behaviors of caretakers and others. Up to this point, few studies have focused on the potential deleterious effects of parenting inconsistency during development. It is possible that inconsistent parenting behaviors, such as inconsistent praise, involvement, or reinforcement may engender an uncertain sense of self-worth, which may make some people more vulnerable for depression later in life.

In line with these questions, the purpose of this study was to test the possibility that inconsistent parenting is associated with uncertain self-esteem and is moderated by depression risk. Specifically, the study examined whether a reported history of inconsistent parenting (as measured by the newly developed Consistency of Parenting Scale; COPS; Luxton, 2007) contributes to the development of uncertain self-esteem and depression risk--above and beyond the influence of negative parenting dimensions alone (i.e., low care and overprotection, as measured by the Parental Bonding Instrument; PBI; Parker et al., 1979). In order to test this possibility, a previously depressed group (high-risk) of college students and a never depressed group (low-risk) of college students were compared on measures of trait self-esteem, self-esteem certainty, consistency of parenting and parental bonding. Potential gender differences in the influence of inconsistent parenting were also examined.

Because of the possibility that divorced, same sex, or absent parents will moderate the nature of parent-child interactions, the present sample was constrained to participants whose biological parents were married and living in the same

household between the respondent ages of 12 through 18 years. This constraint should provide for a more focused examination of parenting inconsistency and a more accurate comparison of mothers and fathers. Further, the reported time since the last depressive episode will be assessed and analyzed in an additional analysis in order to examine whether self-esteem uncertainty is better accounted for by previous episodes of depression or parental inconsistency. The following specific predictions were tested.

#### Predictions

1. There should not be a difference between the high-risk and low-risk groups in level of trait self-esteem.
2. The high-risk group should be more uncertain of their self-esteem than the low-risk group.
3. The high-risk group should report higher levels of inconsistent parenting (both mother and father) than the low-risk group.
4. Self-esteem uncertainty should be positively correlated with reported inconsistent parenting (COPS scores).
5. The association between uncertain self-esteem and inconsistent parenting should be stronger in the high-risk group compared to the low-risk group (depression status should moderate the association between inconsistent parenting and self-esteem certainty).

6. The high-risk group should report higher levels of negative parenting dimensions (i.e., low care and overprotection as measured by the PBI) than the low-risk group.
7. Reports of inconsistent parenting should predict a unique portion of the variance in self-esteem uncertainty beyond that of negative parenting dimensions (as measured by the PBI).
8. Level of self-esteem uncertainty should not diminish significantly as a function of time since a previous episode(s) of depression.
9. Statistically controlling for the time since a previous episode of depression should not eliminate the association between inconsistent parenting and uncertain self-esteem.

## Method

### *Participants*

A total of 409 participants were recruited for the study. Participants were undergraduate students at the University of Kansas who participated as an optional way of obtaining course credit. In order to identify a low-risk and high-risk groups, participants completed the Beck Depression Inventory and a self-report version of the SCID past mood module and current mania.

Participants were also asked to indicate whether or not their primary caretakers were their biological mother or father during the time period that they were 12 to 18 years old. Further, participants were asked to indicate whether or not the person that they identified lived in the same household during this time period.

Participants were only included in the study if their primary caretakers were their biological mother and father and if they lived in the same household.

A total of 182 participants (105 women, 77 men, mean age 18.81 years) met all of these selection criteria and were included in the study. Of the 182, 114 were classified as low-risk (58 women, 56 men) and 68 were classified as high-risk (44 women, 22 men).

### *Procedure*

Participants assembled in small groups and each participant was provided with a booklet that contained the experimental measures. Following informed consent procedures, the participants were given brief verbal instructions for the COPS and were then asked to read the instructions before beginning. The COPS was administered first with mother and father forms in counterbalanced order. The COPS was then followed by the other questionnaires that were in counterbalanced order within each booklet.

### *Measures*

*Beck Depression Inventory* (BDI; Beck et al., 1979). The BDI is a widely used self-report measure of depression that consists of 21 items that are scored from 0 to 3 and are summed to produce a score that ranges from 0 to 63. Higher scores indicate more cognitive, motivational, behavioral, and somatic symptoms of depression. Internal consistency for the BDI ranges from .73 to .92 with a mean of .86 (Beck, Steer, & Garbin, 1988). The BDI also demonstrates high internal consistency, with

alpha coefficients of .86 and .81 for both psychiatric and non-psychiatric populations (Beck et al.,1988).

*The Inventory to Diagnose Depression, Lifetime Version (IDD-L; Zimmerman & Coryell, 1987).* The IDD-L is a 22-item self-report inventory that assesses the level and duration of previous depressive symptomatology. The IDD-L compares well in terms of sensitivity and specificity to the Diagnostic Interview Schedule (Zimmerman & Coryell, 1987) and good discriminant validity (Sakado, Sata, Uehara, Sato, & Kameda, 1996) and test-retest reliability (Sato, Uehara, Sakado, Sato, Nishioka, & Kashahara, 1996) has been reported. Administration to college and community samples has yielded a Spearman Brown split-half reliability coefficient of .90 and a Cronbach alpha of .92 (Zimmerman & Coryell, 1987). Previous research has indicated that scores of 40 and above are indicative of a previous depressive episode (Soloman, Haaga, Brody, Kirk, & Friedman, 1998; Wenzlaff, Meier, & Salas, 2002).

*SCID Mood Module Self-Report Version.* A self-report questionnaire version of the Structured Clinical Interview was developed specifically for the current study. The questionnaire consists of the past depressive episode and current manic episode modules (see appendix). In order to validate the accuracy of the self-report SCID, a sub sample of 30 participants also completed the interview version SCID mood module. The interview was conducted by a trained graduate research assistant who was blind to the depression status of the participants. There was a 100% concordance between the self-report SCID and the interview SCID.

*Rosenberg Self-Esteem Scale* (SES; Rosenberg, 1965). The SES is a 10-item self-report measure of self-esteem. The SES has good face validity (Rosenberg, 1965) and two-week test-retest reliabilities of .85 and .88 have been reported (Rosenberg, 1979). The SES is scored according to the Likert format with low self-esteem responses scored as 1 and high self-esteem responses scored as 4. Thus, scores can range from 10 to 40 with the higher scores indicating higher self-esteem. In populations of college students, reports have indicated a one-week test-retest correlation of .82 (Fleming & Courtney, 1984) and a two-week test-retest correlation of .85 (Silber & Tippett, 1965).

*Self-Esteem Uncertainty Measure* (Luxton & Wenzlaff, 2005). This measure requires participants to go back and look at their responses to the SES and then rate how certain they are of each of their ratings using a 10-point rating scale with anchors at 1 (not at all certain) and 10 (very certain). As additional indices of certainty, participants are also asked to indicate how quickly each SES response came to mind and how likely they are to change their response in the near future. Previous administration of the measure to college students has yielded Cronbach alphas of .84 for the certainty index, .86 for the quickness index, and .91 for the likelihood of change index.

*Parental Bonding Instrument* (PBI; Parker et al., 1979). The PBI is a self-report questionnaire that measures the recall of parenting attitudes and behaviors (i.e., care and overprotection). Parenting styles are based on how respondents rate each parent on a Caring subscale (12 items) and a Protection subscale (13 items). Internal

consistencies have been reported to range from .74 to .95 (Parker, 1989) and Wilhelm and Parker (1989) reported test-retest reliabilities over a ten year period to be between .56 and .72. PBI scores have been shown to correlate with actual parental behaviors (Parker, 1984). Further, PBI scores have been found to be associated with parents' own perceptions as well as that of siblings' ratings of parents (Parker, 1981; Parker et al. 1979).

*Consistency of Parenting Scale* (COPS; Luxton, 2007). The COPS is a retrospective self-report measure designed to assess the consistency of core parenting behaviors. There are two versions of the COPS; a mother version and a father version that each consist of 40 items. Respondents are asked to read statements that describe a parenting behavior and then indicate how consistent their primary caretaker was at doing the particular behavior on a 100 point scale with anchors at 0% "Consistently did not do behavior" and 100% "Consistently did this behavior". The COPS is scored by subtracting each item's rating that is greater than 50 from 100 so that scores closer to 0 reflect greater parental consistency and scores closer to 50 reflect greater parental inconsistency. The total mean score is then calculated. Initial reliability analyses have yielded an internal consistency of .95 for the mother form and .96 for the father form and a test-retest reliability of .80 for the mother form and .79 for the father form.

## Results

In order to test the present hypotheses, structural equation modeling (SEM) was used to conduct a series of two groups (high-risk vs. low-risk and female vs. male) and a four group (high-risk women, high-risk men, low-risk women and low-

risk men) confirmatory factor analyses (CFAs) and structural analyses. The use of SEM for the present study has at least two advantages. First, the use of SEM allowed for more powerful tests of the effects of the variables and also decreased bias from random or correlated measurement error that might attenuate or overestimate the relationship between the variables (Russell, Kahn, Spoth, & Altmaier, 1998). Second, the use of SEM model tests made it possible to examine the complex relationships and mean differences between constructs simultaneously while controlling for the effects of each other construct.

Data analyses were conducted in four primary phases. For the initial phase, descriptive statistics were examined and the data were prepared for SEM analyses. The second phase tested the hypothesized measurement model for both the low-risk and the high-risk groups. During this phase, a series of increasingly restrictive models were examined in order to test for invariance of the hypothesized measurement model across the depression status groups. The third phase tested two groups structural and latent means models for the depression status groups. During this phase, the main prediction that the association between inconsistent parenting and self-esteem certainty is moderated by depression status was tested. Structural model analyses also examined whether inconsistency of parenting contributes to self-esteem uncertainty above and beyond negative parenting (i.e., low care and high overprotection) and latent mean analyses examined differences between the depression groups in mean level of each of the variables. The final phase tested whether the structural and latent



means models were moderated by gender. A potential gender by depression status interaction effect was also tested.

#### *Data Preparation*

Before beginning the analyses, each of the variables were examined in SPSS for accuracy of data entry, missing values, outliers, and normality of distributions. Four participants were identified as either univariate or multivariate outliers. Closer inspection of their responses suggested that these participants did not respond to all of the questionnaires consistently and were thus removed from further analyses. Missing data analysis indicated that there were fewer than 1% missing data. The missing data were imputed with SAS Proc MI.

#### *Descriptive Statistics*

The means and standard deviations of each of the measures based on depression status and gender are shown in Tables 1 and 2. In order to examine differences in the raw mean scores on the mother and father COPS components, a series of mixed design ANOVAS were conducted with depression status and gender as the between groups factors and gender of parents as the repeated within subjects factor. For the COPS consistency of care component, the results indicated a statistically reliable main effect for parent gender,  $F(1,178) = 31.1, p < .001$ . This result indicated that on average, participants rated their fathers as less consistent on care compared to mothers. The parent gender by depression status effect was also statistically reliable,  $F(1,178) = 4.63, p < .05$ . This result indicated that the high-risk group reported lower levels of father consistency of care compared to high-risk group

mother consistency as well as both father and mother consistency of care in the low-risk group. Neither of the parent gender by participant gender or the three-way parent gender by risk status by participant gender interactions were statistically reliable (all  $ps > .05$ ). For the consistency of control component, none of the effects were statistically reliable (all  $ps. > .05$ ). Further tests of between group differences in means of all variables were conducted by latent means analyses and are reported in a later section.

Table 1.

*Means and standard deviations of the measures based on depression risk status*

Measure	High-Risk Group (n = 68)		Low-Risk Group (n = 114)	
	M	SD	M	SD
Self-Esteem Certainty	8.83	.899	9.09	.838
Trait Self-Esteem	33.74	4.05	35.98	3.56
Mother Consistency of Care	11.30	8.81	11.76	8.15
Father Consistency of Care	17.16	9.61	14.36	10.04
Mother Consistency of Control	19.90	9.69	18.93	8.60
Father Consistency of Control	19.47	8.40	18.25	8.58
PBI Mother Care	3.59	.507	3.65	.400
PBI Father Care	3.24	.669	3.47	.456
PBI Mother Overprotection	2.16	.586	1.92	.526
PBI Father Overprotection	1.94	.476	1.69	.446

Table 2.

*Means and standard deviations of the measures based on gender*

Measure	Women (n = 105)		Men (n = 77)	
	M	SD	M	SD
Self-Esteem Certainty	9.02	.844	8.95	.905
Trait Self-Esteem	35.00	3.95	35.32	3.84
Mother Consistency of Care	10.53	8.54	13.03	7.99
Father Consistency of Care	14.75	10.21	16.31	9.58
Mother Consistency of Control	18.40	9.03	20.50	8.88
Father Consistency of Control	18.31	8.61	19.24	8.39
PBI Mother Care	3.66	.464	3.57	.409
PBI Father Care	3.41	.592	3.36	.503
PBI Mother Overprotection	2.02	.567	2.00	.554
PBI Father Overprotection	1.89	.469	1.65	.440

The correlations between scores on each of the parenting measures as well as self-esteem and self-esteem certainty are shown in Table 3. The mother and father COPS care factors had a significant positive correlation with each other as well as significant negative correlations with both the mother and father care factors of the PBI. The mother and father COPS control factors were also positively correlated with each other and had significant positive correlations with both the mother and father overprotection factors of the PBI. Taken together, the correlations between the COPS and PBI factors are consistent with theory.

Table 3.

*Correlations among measures of self-esteem certainty, trait self-esteem, Consistency of Parenting Scale and the care and overprotection components of the Parental Bonding Instrument*

Measure	1	2	3	4	5	6	7	8	9	10
1. SE Certainty	1									
2. Trait SE	.67***	1								
3. Mother COPS Care	-.41***	-.32***	1							
4. Mother COPS Control	-.35***	-.28***	.49***	1						
5. Father COPS Care	-.31***	-.29***	.47***	.25***	1					
6. Father COPS Control	-.19*	-.17*	.35***	.43***	.52***	1				
7. Mother PBI Care	.23**	.21**	-.68***	-.25***	-.35***	-.33***	1			
8. Mother PBI Overprot.	-.21**	-.20**	.31***	.40***	.27***	.40***	-.52***	1		
9. Father PBI Care	.29***	.24***	-.35***	-.12	-.70***	-.42***	.41***	-.34***	1	
10. Father PBI Overprot.	-.17*	-.14	.13	.10	.20**	.51***	-.31***	.57***	-.37***	1

Note: \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

*Data Preparation for SEM Analyses*

In preparation for SEM analyses, all of the variables were computed in SAS, parceled into indicators of the hypothesized latent constructs, and checked for normality. A total of 30 parcels were computed and served as indicators for the 10 latent constructs in the measurement and structural models that were tested. The consistency of care and consistency of control factors of the mother and father COPS measures were facet parceled into three indicators each. These were entered into the model as predictors of latent mother consistency of care, mother consistency of control, father consistency of care, and father consistency of control constructs. The care and overprotection components of the PBI for both mothers and fathers were facet parceled into three indicators each. These were entered into the model as

indicators of latent mother and father parental care constructs and latent overprotection constructs. The self-esteem certainty indices were facet parceled into three indicators of self-esteem uncertainty (certainty, quickness, and likelihood of change), and were entered into the model as multiple indicators of a latent self-esteem certainty construct. The 10 trait self-esteem items were parceled into three indicators of the latent trait self-esteem construct. The observed variables means, standard deviations, and correlation matrices that were analyzed in each of the SEM models are shown in Tables 4 through 11. The loadings of each indicator on its corresponding latent construct, the intercepts of the regression of the latent dependent variable on its manifest indicators, the error terms of the manifest indicators, and the squared multiple correlations for the manifest indicators are shown in Tables 12 and 13.

#### *Depression Status Model Tests*

LISREL 8.71 (Joreskog & Sorbom, 2004) was used to conduct all of the SEM analyses and maximum likelihood (ML) method of estimation was used to analyze variance/covariance matrices. In addition to chi-square, the decisions regarding the adequacy of model fit were based on Root Mean Square of Estimation (RMSEA), Comparative Fit Index (CFI), and the Non-Normed Fit Index (NNFI), respectively. In order for the model fit to be considered as adequate, a minimum of two of these three indices had to have met the following standards; RMSEA < .05, CFI > .90, and NNFI > .90. Model invariance was evaluated by the examination of the relative change in CFI of the nested model. A change of CFI greater than .01 was considered a significant change in model fit (Cheung & Rensvold, 2002).













Table 9.

Means, standard deviations, and correlation matrix for the low risk men's group manifest indicator parcels.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.															
Means	1.192	1.153	1.374	2.088	1.935	1.882	3.631	3.580	3.715	1.865	1.618	2.133	1.503	1.411	1.496															
Std. Devs.	.938	.897	1.051	.522	.492	.408	.421	.359	.539	.298	.254	.434	.155	.167	.157															
	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.															
Means	1.845	1.819	1.760	3.418	3.386	3.581	1.458	1.419	1.731	1.107	1.205	2.092	.827	.808	.826															
Std. Devs.	.871	.764	.796	.796	1.027	.999	.407	.402	.343	.517	.471	.611	.938	.917	.939															
Parcel	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.															
1. MCOPCar1	1																													
2. MCOPCar2	.900	1																												
3. MCOPCar3	.938	.917	1																											
4. MCOPCnt1	.596	.574	.638	1																										
5. MCOPCnt2	.548	.584	.571	.680	1																									
6. MCOPCnt3	.580	.601	.619	.730	.772	1																								
7. MPBICar1	-.602	-.604	-.584	-.299	-.225	-.197	1																							
8. MPBICar2	-.679	-.639	-.632	-.511	-.493	-.478	.694	1																						
9. MPBICar3	-.674	-.588	-.613	-.320	-.308	-.253	.577	.529	1																					
10. MPBIOvr1	.234	.169	.172	.388	.371	.387	-.151	-.448	-.225	1																				
11. MPBIOvr2	.413	.348	.399	.514	.463	.592	-.312	-.580	-.394	.560	1																			
12. MPBIOvr3	.324	.232	.253	.479	.405	.527	-.149	-.405	-.180	.785	.628	1																		
13. FCOPCar1	.623	.624	.633	.444	.314	.400	-.223	-.282	-.224	.002	.258	.158	1																	
14. FCOPCar2	.590	.609	.619	.479	.381	.423	-.251	-.263	-.188	.046	.233	.133	.921	1																
15. FCOPCar3	.612	.620	.642	.459	.422	.468	-.259	-.273	-.213	-.002	.248	.126	.920	.935	1															
16. FCOPCnt1	.427	.380	.465	.526	.469	.539	-.147	-.207	-.220	-.006	.362	.154	.484	.535	.591	1														
17. FCOPCnt2	.344	.326	.389	.537	.403	.510	-.017	-.310	-.099	.218	.413	.237	.388	.378	.384	.608	1													
18. FCOPCnt3	.357	.377	.416	.471	.412	.539	-.087	-.262	-.029	.132	.310	.197	.487	.480	.597	.769	1													
19. FPBICar1	-.207	-.282	-.242	-.187	-.094	-.126	.187	.212	.091	-.165	-.251	-.175	-.648	-.717	-.637	-.218	-.024	-.247	1											
20. FPBICar2	-.148	-.157	-.133	-.135	-.024	-.128	.128	.255	.024	-.163	-.171	-.218	-.522	-.558	-.466	-.174	-.172	-.396	.718	1										
21. FPBICar3	-.151	-.213	-.209	-.118	-.056	-.116	.122	.147	.139	-.100	-.214	-.066	-.608	-.630	-.596	-.124	-.089	-.220	.823	.634	1									
22. FPBIOvr1	.138	.133	.119	.145	.181	.173	-.099	-.332	-.122	.465	.254	.411	.009	.099	.017	.061	.231	.230	-.079	-.401	.020	1								
23. FPBIOvr2	.085	.046	.099	.321	.132	.248	.029	-.099	-.092	.231	.485	.251	.098	.186	.110	.401	.422	.379	-.134	-.203	-.031	.376	1							
24. FPBIOvr3	.179	.168	.143	.305	.268	.369	-.157	-.267	-.076	.402	.400	.589	.167	.171	.167	.222	.222	.267	-.112	-.265	-.014	.587	.471	1						
25. Trait SE1	-.536	-.446	-.558	-.481	-.399	-.481	.271	.403	.402	-.330	-.453	-.384	-.371	-.352	-.331	-.337	-.203	-.279	.204	.127	.119	-.226	-.261	-.210	1					
26. Trait SE2	-.634	-.577	-.599	-.536	-.394	-.568	.349	.523	.368	-.205	-.413	-.373	-.533	-.490	-.460	-.408	-.338	-.368	.228	.307	.159	-.243	-.223	-.402	.699	1				
27. Trait SE3	-.511	-.479	-.524	-.498	-.338	-.545	.325	.470	.290	-.271	-.364	-.288	-.402	-.358	-.379	-.333	-.246	-.266	.171	.064	.226	-.039	.026	-.178	.652	.703	1			
28. SECert1	-.587	-.556	-.552	-.435	-.416	-.571	.378	.557	.342	-.225	-.452	-.415	-.361	-.318	-.332	-.244	-.152	-.178	.170	.231	.154	-.127	-.029	-.333	.440	.677	.582	1		
29. SECert2	-.472	-.491	-.471	-.442	-.367	-.497	.235	.489	.344	-.233	-.459	-.293	-.367	-.260	-.242	-.146	-.226	-.171	.125	.153	.127	-.145	-.117	-.178	.472	.605	.630	.752	1	
30. SECert3	-.486	-.446	-.480	-.339	-.290	-.449	.319	.432	.209	-.121	-.318	-.303	-.294	-.273	-.239	-.149	-.084	-.161	.102	.169	.039	-.112	.044	-.239	.508	.657	.586	.815	.672	1



Table 11.

*Means, standard deviations, and correlation matrix for the high risk men's group manifest indicator parcels.*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.															
Means	1.399	1.283	1.640	2.352	2.087	3.325	3.431	3.299	3.488	2.309	2.056	2.659	2.041	1.916	2.121															
Std. Devs.	.909	.770	.950	1.057	1.065	1.023	.557	.559	.589	.678	.645	.692	1.066	.940	1.065															
	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.															
Means	2.244	2.205	2.198	3.079	3.056	3.204	1.781	1.840	2.261	1.018	1.124	1.940	.780	.785	.794															
Std. Devs.	.998	.729	.930	.651	.640	.585	.508	.564	.619	.270	.236	.463	.199	.202	.163															
Parcel	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.															
1. MCOPCar1	1																													
2. MCOPCar2	.919	1																												
3. MCOPCar3	.797	.795	1																											
4. MCOPCnt1	.236	.250	.497	1																										
5. MCOPCnt2	-.049	-.130	.152	.742	1																									
6. MCOPCnt3	.051	-.022	.299	.746	.809	1																								
7. MPBICar1	-.704	-.715	-.472	.086	.399	.295	1																							
8. MPBICar2	-.679	-.606	-.336	.053	.336	.263	.762	1																						
9. MPBICar3	-.619	-.647	-.318	.054	.417	.323	.894	.801	1																					
10. MPBIOvr1	.030	.029	.109	.138	.076	.138	.200	.412	.259	1																				
11. MPBIOvr2	.168	.055	.008	.421	.393	.420	-.163	-.382	-.319	.698	1																			
12. MPBIOvr3	.104	.055	.042	.434	.359	.392	-.063	-.367	-.207	.747	.818	1																		
13. FCOPCar1	.276	.325	.262	-.072	.019	-.095	-.410	-.201	-.409	.145	.146	.002	1																	
14. FCOPCar2	.214	.318	.284	-.098	.005	-.080	-.287	-.147	-.272	.150	.154	.015	.848	1																
15. FCOPCar3	.189	.276	.306	.066	.110	.049	-.371	-.143	-.384	.208	.203	.074	.938	.853	1															
16. FCOPCnt1	.132	-.011	.231	.494	.535	.457	.077	.072	.040	.161	.292	.266	.375	.200	.365	1														
17. FCOPCnt2	-.029	-.214	-.065	.098	.208	.117	.030	-.236	.085	.214	.128	.250	-.031	-.153	-.046	.556	1													
18. FCOPCnt3	.302	.160	.267	.335	.177	.273	-.288	-.307	-.359	.266	.377	.293	.297	.150	.338	.740	.486	1												
19. FPBICar1	-.234	-.354	-.302	.201	.269	.365	.573	.179	.467	-.053	.222	.195	-.736	-.618	-.738	-.134	.080	-.199	1											
20. FPBICar2	-.340	-.433	-.289	.178	.295	.365	.603	.260	.514	-.114	.114	.153	-.759	-.637	-.696	-.244	.028	-.330	.908	1										
21. FPBICar3	-.272	-.387	-.272	.087	.211	.306	.564	.280	.507	-.101	.094	.019	-.589	-.579	-.628	-.181	.014	-.291	.828	.793	1									
22. FPBIOvr1	.139	.158	.053	.227	-.039	-.053	-.131	-.242	-.167	.497	.286	.407	-.027	.003	-.016	.352	.345	.446	-.089	-.311	-.259	1								
23. FPBIOvr2	-.003	-.138	-.147	.006	-.147	-.135	-.017	-.175	-.193	.178	.238	.167	-.018	-.046	-.054	.416	.348	.539	-.061	-.254	-.122	.620	1							
24. FPBIOvr3	-.025	-.138	-.114	-.093	-.193	-.094	-.144	-.136	-.219	.161	.222	.266	-.042	-.064	-.043	.181	.174	.301	-.142	-.287	-.204	.590	.763	1						
25. Trait SE1	.211	.107	.155	.229	.163	.086	-.139	-.309	-.101	.129	.219	.243	.067	-.105	-.011	.274	.451	.102	.176	.035	.233	-.099	-.009	-.076	1					
26. Trait SE2	.066	.013	.116	.021	.097	-.013	.036	-.120	.081	-.188	-.063	-.117	.024	.059	.005	-.104	.046	-.274	.179	.202	.197	-.615	-.307	-.408	.686	1				
27. Trait SE3	-.137	-.161	-.086	.040	.079	-.059	.246	.009	.228	.139	.130	.201	-.132	-.060	-.167	-.132	-.072	-.408	.318	.284	.296	-.348	-.215	-.218	.605	.736	1			
28. SECent1	-.024	-.139	-.049	.042	.237	.126	.093	-.003	.108	.058	.128	.118	-.145	-.146	-.137	-.009	.014	-.249	.240	.283	.278	-.498	-.206	-.147	.595	.756	.730	1		
29. SECent2	-.086	-.180	-.016	.103	.213	.171	.105	.021	.167	.061	.080	.061	-.203	-.192	-.169	.057	.164	-.153	.292	.311	.366	-.420	-.208	-.186	.693	.757	.688	.928	1	
30. SECent3	-.131	-.253	-.179	-.108	.203	.046	.198	.061	.203	-.080	.030	.022	-.168	-.133	-.165	-.125	.028	-.376	.275	.330	.305	-.536	-.192	-.089	.512	.760	.649	.936	.840	1

Table 12.

*Depression Status Groups Parameters*

Indicator	Low-risk Group				High-risk Group			
	Lambda-Y	Tau-Y	Theta-E	H <sup>2</sup>	Lambda-Y	Tau-Y	Theta-E	H <sup>2</sup>
MCOPCare								
mcopycar1	.847	1.133	.065	.917	.909	1.055	.049	.943
mcopycar2	.785	1.093	.059	.912	.851	1.072	.071	.911
mcopycar3	.778	1.289	.056	.915	.824	1.230	.119	.851
MCOPCont.								
mcopycnt1	.787	1.937	.227	.732	.955	2.029	.197	.823
mcopycnt2	.776	1.900	.317	.655	.788	2.025	.455	.571
mcopycnt3	.875	1.848	.151	.833	.960	1.948	.317	.744
MPBICare								
mpbicar1	.425	3.641	.038	.818	.538	3.607	.039	.881
mpbicar2	.391	3.589	.057	.707	.460	3.506	.067	.759
mpbicar3	.322	3.717	.046	.727	.484	3.656	.029	.889
MPBIOver								
mpbiovr1	.473	1.813	.099	.694	.557	2.038	.143	.685
mpbiovr2	.469	1.741	.115	.657	.525	1.925	.077	.782
mpbiovr3	.533	2.238	.120	.703	.559	2.523	.149	.678
FCOPCare								
fcopycar1	.847	1.133	.107	.912	.909	1.055	.051	.952
fcopycar2	.785	1.093	.047	.953	.851	1.072	.187	.824
fcopycar3	.778	1.289	.086	.916	.824	1.230	.116	.876
FCOPCont.								
fcopycnt1	.787	1.937	.334	.648	.955	2.029	.207	.772
fcopycnt2	.776	1.900	.228	.724	.788	2.025	.382	.550
fcopycnt3	.875	1.848	.277	.730	.960	1.948	.287	.712
FPBICare								
fpbicar1	.425	3.641	.037	.862	.538	3.607	.046	.915
fpbicar2	.391	3.589	.098	.653	.460	3.506	.120	.751
fpbicar3	.322	3.717	.053	.755	.484	3.656	.076	.840
FPBIOver								
fpbiovr1	.473	1.813	.098	.591	.557	2.038	.112	.629
fpbiovr2	.469	1.741	.080	.636	.525	1.925	.135	.555
fpbiovr3	.533	2.238	.180	.501	.559	2.523	.139	.579
Self-Esteem								
ses1	.918	1.132	.032	.547	.991	9.882	.939	.560
ses2	.997	1.217	.023	.626	.989	10.30	.528	.725
ses3	.934	2.115	.057	.702	.997	13.54	.701	.761
SE Certainty								
Secert	.913	.839	.002	.900	.865	8.764	.193	.795
Sequick	.813	.836	.009	.617	.839	8.820	.124	.850
Sechang	.730	.830	.009	.686	.907	8.897	.157	.840

*Note:* The Lambda-Y column shows the loadings of each indicator on its corresponding latent construct, the Tau-Y column shows the intercepts of the regression of the latent dependent variable on its manifest indicators, the Theta-Epsilon column shows the error terms of the manifest indicators, and the H<sup>2</sup> column shows the squared multiple correlations for the manifest indicators.

Table 13.

*Gender Groups Parameters*

Indicator	Women's Group				Men's Group			
	Lambda-Y	Tau-Y	Theta-E	H <sup>2</sup>	Lambda-Y	Tau-Y	Theta-E	H <sup>2</sup>
MCOPCare								
m copcar1	.822	.996	.065	.923	.824	1.275	.067	.910
m copcar2	.846	.977	.062	.921	.737	1.208	.059	.903
m copcar3	.801	1.174	.055	.921	.791	1.381	.109	.852
MCOPCont.								
m copcnt1	.863	1.857	.200	.788	.762	2.125	.259	.691
m copcnt2	.825	1.878	.358	.655	.789	2.016	.356	.637
m copcnt3	.871	1.791	.228	.769	.947	2.014	.144	.861
MPBICare								
m pbicar1	.493	3.663	.029	.894	.421	3.565	.055	.763
m pbicar2	.425	3.614	.062	.753	.383	3.503	.060	.710
m pbicar3	.416	3.728	.028	.860	.345	3.660	.061	.661
MPBIOver								
m pbiovr1	.513	1.872	.123	.682	.515	1.940	.108	.710
m pbiovr2	.575	1.848	.071	.823	.439	1.791	.103	.651
m pbiovr3	.515	2.372	.173	.606	.620	2.290	.076	.834
FCOPCare								
f copcar1	.822	.996	.107	.913	.824	1.275	.072	.931
f copcar2	.846	.977	.083	.926	.737	1.208	.099	.888
f copcar3	.801	1.174	.110	.893	.791	1.381	.078	.920
FCOPCont.								
f copcnt1	.863	1.857	.257	.720	.762	2.125	.361	.581
f copcnt2	.825	1.878	.279	.684	.789	2.016	.278	.659
f copcnt3	.871	1.791	.300	.692	.947	2.014	.286	.730
FPBICare								
f pbicar1	.493	3.663	.043	.901	.421	3.565	.038	.884
f pbicar2	.425	3.614	.116	.725	.383	3.503	.083	.743
f pbicar3	.416	3.728	.069	.801	.345	3.660	.056	.775
FPBIOver								
f pbiovr1	.513	1.872	.121	.559	.515	1.940	.086	.641
f pbiovr2	.575	1.848	.101	.656	.439	1.791	.098	.532
f pbiovr3	.515	2.372	.184	.456	.620	2.290	.130	.632
Self-Esteem								
s es1	.950	1.305	.880	.556	.984	10.29	.959	.551
s es2	.917	1.667	.786	.568	.913	10.80	.236	.840
s es3	.984	14.03	.450	.848	.933	14.22	.925	.657
SE Certainty								
s ecert	.864	8.928	.179	.806	.942	8.871	.110	.890
s equick	.794	9.017	.064	.907	.893	8.961	.051	.940
s echang	.798	9.126	.174	.785	.817	9.031	.178	.789

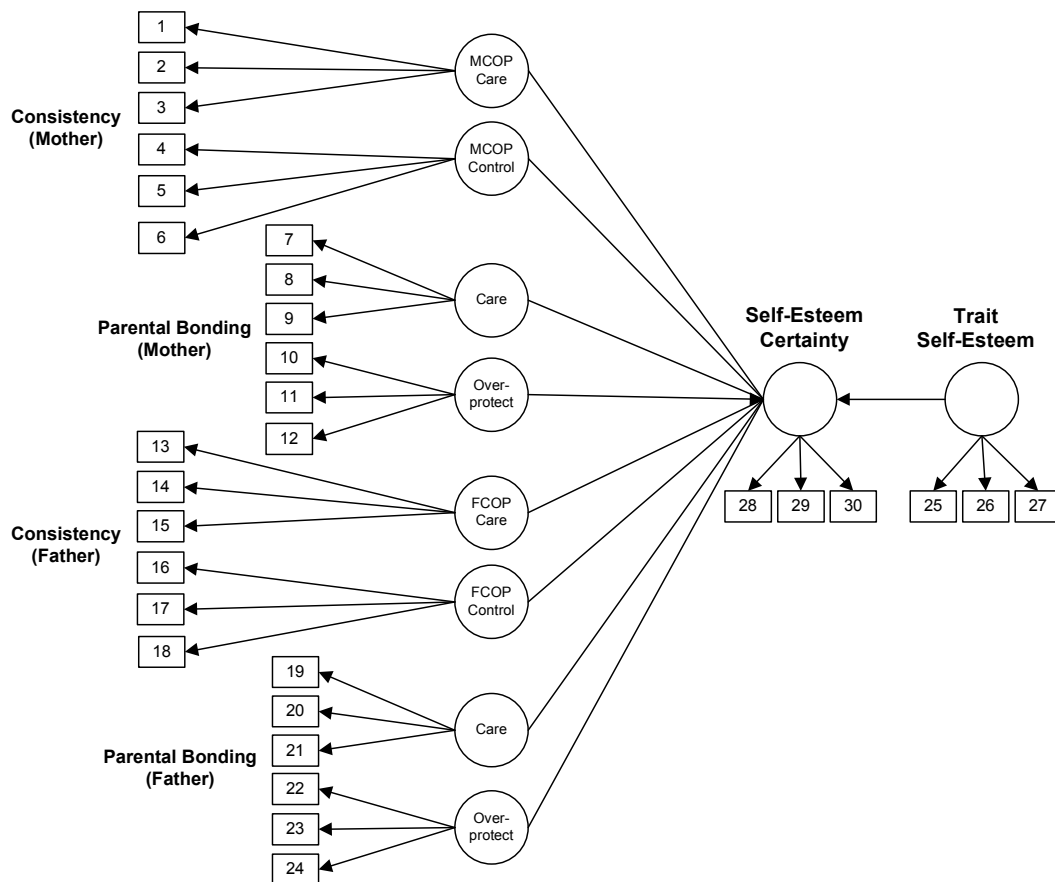
*Note:* The Lambda-Y column shows the loadings of each indicator on its corresponding latent construct, the Tau-Y column shows the intercepts of the regression of the latent dependent variable on its manifest indicators, the Theta-Epsilon column shows the error terms of the manifest indicators, and the H<sup>2</sup> column shows the squared multiple correlations for the manifest indicators.

The hypothesized measurement model with the 10 latent constructs and the 30 indicators is shown in Figure 1. Tests for model fit began with a test of configural invariance specified in order to test that the latent constructs exist in each of the depression status groups. To accomplish this, the hypothesized measurement model was tested separately for each group and then as a combined two group model. For these analyses and all subsequent analyses, the loadings of the indicators on the latent parenting constructs were equated between mother and father within each group. The results indicated an acceptable fit for both the low-risk,  $\chi^2(376, n=114) = 641.78, p <.001$ , RMSEA = .063 , NNFI = .952, CFI = .959, and the high-risk group,  $\chi^2(376, n=68) = 643.33, p <.001$ , RMSEA = .076 , NNFI = .912, CFI = .924, and therefore suggest that the hypothesized factor structure exists in both groups. The results of the combined two group test also indicated an acceptable model fit,  $\chi^2(752, n=182) = 1285.12, p <.01$ , RMSEA = .068 , NNFI = .938, CFI = .946, which suggest that the requirements of configural invariance between groups was met. Next, in order to test proportional equivalence of the factor loadings between groups, a weak factorial invariance specified model was tested. For this model, the loadings of the indicators were equated across the groups but the intercepts of the indicators and their residual variances were still free to vary. The results again indicated an acceptable model fit,  $\chi^2(764, n=182) = 1309.39, p <.01$ , RMSEA = .096, NNFI = .937, CFI = .945. The CFI difference test indicated that the constraints were supported ( $\Delta\text{CFI} \leq 0.01$ ), and that the factor loadings across the two status groups were thus invariant. Next, a strong factorial invariance specified model was tested. For this test, the loadings and



intercepts of indicators were constrained to be equal across the status groups. The results indicated an acceptable model fit,  $\chi^2(776, n=182) = 1326.44, p < .01, RMSEA = .069, NNFI = .938, CFI = .945$ . The nested CFI difference test revealed a non-significant difference ( $\Delta CFI \leq 0.01$ ), and thus indicated that the variances were invariant across the two status groups. Taken together, these results indicate that the hypothesized factor structure fits the data well and exists in both high and low-risk groups.

Figure 1. Hypothesized measurement model with 10 latent constructs and 30 manifest indicators.

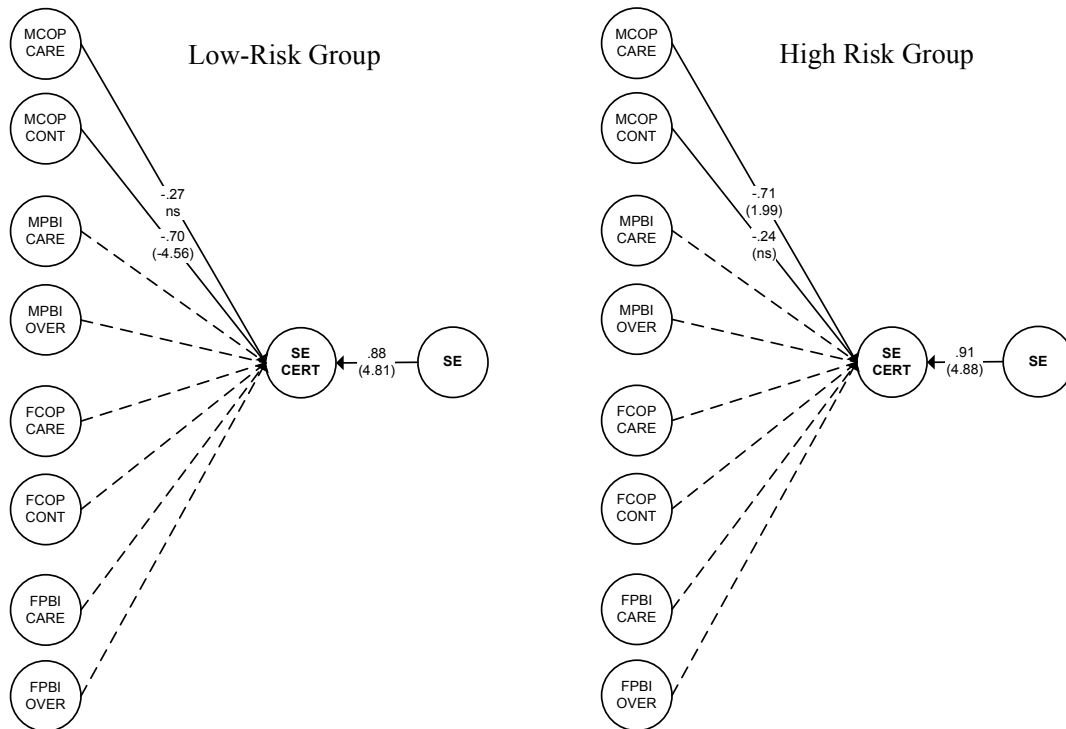


The next step was to test for invariance of the corresponding variances and correlations by equating them across the status groups. The results of this nested test indicated that the constraints were marginally supported,  $\chi^2(831, n=182) = 1437.43, p < .01$ , RMSEA = .073, NNFI = .936, CFI = .937,  $\Delta\text{CFI} = 0.008$ . This result indicated that there were potential differences in the covariances between the groups and that examination of the structural model was thus warranted.

The examination of the structural model tested the predictions that self-esteem uncertainty should be positively correlated with inconsistent parenting, that the association between uncertain self-esteem and inconsistent parenting would be stronger in the high-risk group, and that reports of inconsistent parenting should predict a unique portion of the variance in self-esteem certainty. The fit of the model with all paths estimated was acceptable  $\chi^2(748, n=182) = 1285.98, p < .01$ , RMSEA = .064, NNFI = .937, CFI = .946. Next, through a step by step process of removal and addition, the model was trimmed so that only the beta paths that were statistically significant in at least one of the groups remained. Careful examination of the modification indices and model fit was done during each step to guide the removal of beta paths. The model fit of the modified model was again acceptable  $\chi^2(761, n=182) = 1292.85, p < .01$ , RMSEA = .070, NNFI = .939, CFI = .946, and the nested CFI difference test indicated that the modified model fit was not significantly different than the full model,  $\Delta\text{CFI} \leq .01$ . In the low-risk group, only the paths between trait self-esteem and self-esteem certainty ( $z = 4.81, p < .001$ ) and mother inconsistency of control and self-esteem certainty were statistically significant ( $z = -4.56, p < .01$ ). In

the high-risk group, only the paths between self-esteem and self-esteem certainty ( $z = 4.88, p < .001$ ) and mother consistency of care and self-esteem certainty were statistically significant ( $z = -1.99, p < .05$ ). This modified model is shown in Figure 2. The modified model accounted for 66% of the variance in self-esteem certainty in the low-risk group and 49% in the high-risk group.

Figure 2. Structural models for the depression status groups. Circles represent the latent constructs, solid lines represent beta paths and dotted lines represent removed non-significant beta paths.



Structural Model Fit:

$$\chi^2(761, n=182) = 1292.85, p < .01, RMSEA = .070, NNFI = .939, CFI = .946$$

The latent means structures were examined in order to test the predictions that the depression groups should not differ in level of trait self-esteem, that the high-risk group should be more uncertain of their self-esteem, and that the high-risk group should report higher levels of both inconsistent parenting and negative parenting dimensions. The low-risk mother constructs were first set to equal zero and thus served as the reference for comparing the corresponding between and within group means. Follow-up tests with the father constructs as the reference were also conducted. The high-risk group reported significantly lower levels of both trait self-esteem ( $z = -3.62, p < .01$ ) and self-esteem certainty ( $z = -1.97, p < .05$ ) compared to the low-risk group. With the low-risk mother constructs set as the reference, the high-risk group reported higher levels of mother PBI overprotection compared to the low-risk group ( $z = 2.55, p < .05$ ). The high-risk group also reported significantly higher levels of father inconsistency of care ( $z = 3.69, p < .01$ ) and lower levels of father PBI care ( $z = -4.27, p < .01$ ) compared to the corresponding mother constructs in the low-risk group. With the low-risk father constructs set as the reference, the high-risk group reported lower levels of father PBI care ( $z = -2.36, p < .05$ ) compared to low-risk group father PBI care and higher levels of father PBI overprotection ( $z = 3.03, p < .05$ ) compared to low-risk father PBI control. The high-risk group also reported lower levels of mother consistency of care ( $z = -2.20, p < .05$ ) and mother PBI control ( $z = 5.01, p < .001$ ) compared to the corresponding father constructs in the low-risk group.

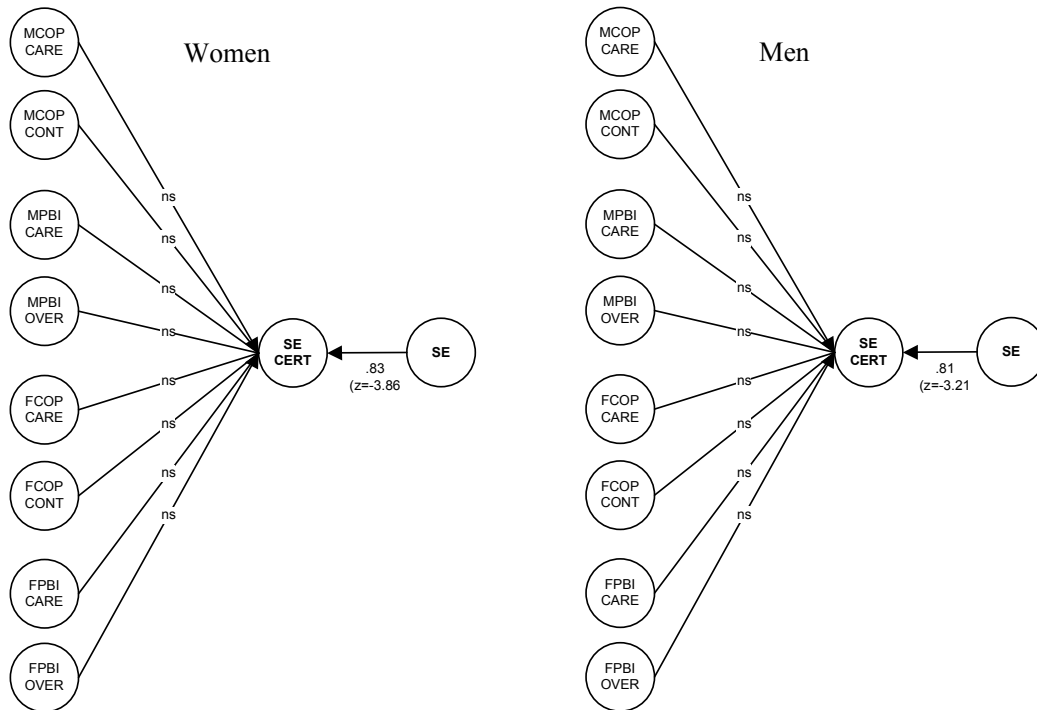
Within the low-risk group, participants reported higher levels of father inconsistency of care ( $z = 3.10, p < .05$ ) compared to mother inconsistency of care, lower levels of father PBI care ( $z = -3.73, p < .05$ ) compared to mother PBI care, and lower levels of father PBI overprotection ( $z = -4.89, p < .01$ ) compared to mother PBI overprotection. Within the high-risk group, participants reported higher levels of father inconsistency of care ( $z = 4.34, p < .05$ ) compared to mother inconsistency of care and lower levels of father PBI care ( $z = -4.77, p < .05$ ) compared to mother PBI care.

#### *Gender Model Tests*

Tests for gender differences began by insuring that the measurement model still fit the data for the gender groups. A two group (women and men) strong factorial invariance specified model was again tested and the results indicated an acceptable model fit,  $\chi^2(776, n=182) = 1239.141, p < .001, RMSEA = .065, NNFI = .949, CFI = .954$ . The next step was to test for invariance of the corresponding variances and correlations by equating them across the gender groups. The results of this nested test indicated that the constraints were supported,  $\chi^2(831, n=182) = 1318.123 p < .001, RMSEA = .0643, NNFI = .950, CFI = .952, \Delta CFI \leq .01$ , and thus indicated that there were not significant differences in the variance/covariances between the gender groups. An examination of the structural model revealed an adequate fit,  $\chi^2(748, n=182) = 1089.94, p < .001, RMSEA = .047, NNFI = .973, CFI = .972$ , although only the path between trait self-esteem and self-esteem certainty was statistically reliable for both men ( $z = -3.21, p < .01$ ) and women ( $z = -3.86, p < .01$ ). Thus, a moderating

effect of gender was not supported. The modified two group gender model is shown in Figure 3.

Figure 3. Structural models for the gender groups . Circles represent the latent constructs, solid lines represent beta paths and dotted lines represent removed non-significant beta paths.



Structural Model Fit:

$$\chi^2 (748, n=182) = 1089.94, p < .001, RMSEA = .047, NNFI = .97, CFI = .97$$

The next step was to examine the latent mean structures of the gender groups. For this test, the means of the mother constructs in the women's group were first set to 0 in order to serve as the reference group. Men reported significantly higher levels of father inconsistent care ( $z = 4.02, p < .01$ ) and significantly lower levels of both father PBI care ( $z = -4.48, p < .05$ ) and father PBI overprotection ( $z = -4.51, p < .01$ )

compared to the corresponding constructs in the women's group. Further, males reported significantly higher levels of mother PBI care ( $z = 2.35, p < .05$ ) and lower levels of father PBI overprotection ( $z = -3.33, p < .05$ ) compared to the corresponding father constructs in the women's group.

Within the women's group, participants reported higher levels of father inconsistency care ( $z = 4.06, p < .01$ ) and lower levels of both father PBI care ( $z = -4.48, p < .01$ ) and father PBI overprotection ( $z = -2.27, p < .05$ ) compared to the corresponding mother constructs. Within the men's group, participants reported higher levels of inconsistent father care ( $z = 4.13, p < .01$ ), lower levels of both father PBI care ( $z = -4.17, p < .01$ ) and father PBI overprotection ( $z = -6.19, p < .001$ ) compared to the corresponding mother constructs.

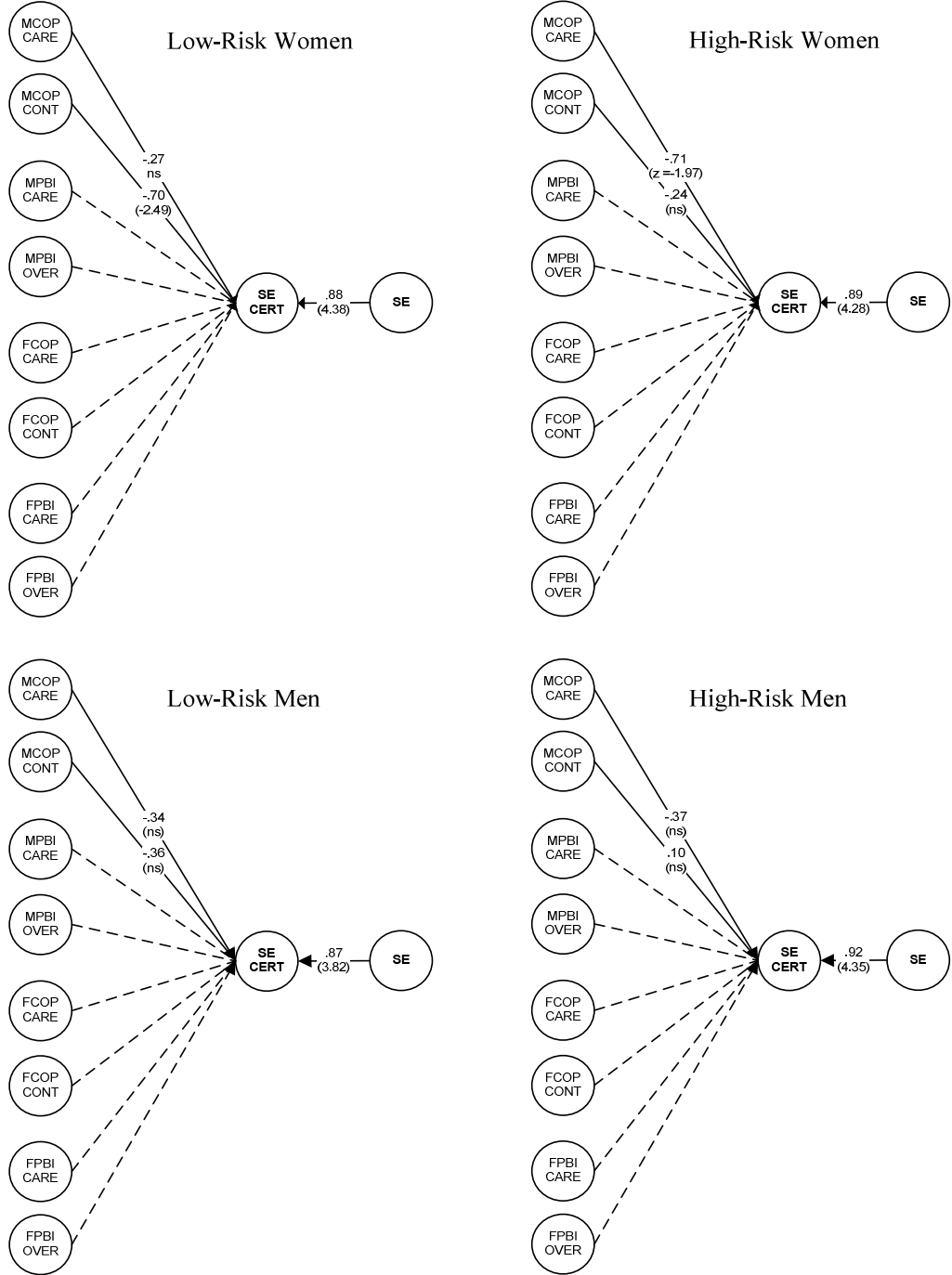
#### *Status by Gender Interaction Model Tests*

Before testing status by gender interaction effects, the initial measurement model was again tested in a four group (low-risk women, low-risk men, high-risk women, high-risk men) model. The results indicated marginal model fit,  $\chi^2(1552, n=182) = 3078.39, p < .01$ , RMSEA = .067, NNFI = .831, CFI = .847. Nonetheless, invariance of the corresponding variances and correlations was tested by equating them across the status by gender groups. The results of this nested test indicated that the constraints were not supported,  $\chi^2(1662, n=182) = 3112.81, p < .01$ , RMSEA = .074, NNFI = .836, CFI = .835,  $\Delta CFI = .011$ , and therefore indicated that there were differences in the variances and correlations between the status by gender groups. In order to examine these differences, the structural model was tested. The fit of the full

model was again marginal  $\chi^2(1496, n=182) = 2881.35, p < .01, RMSEA = .058, NNFI = .832, CFI = .861$ . Non-significant paths were thus trimmed from the model in the same manner as the main depression status analysis. In this modified model, only the path between trait self-esteem and self-esteem certainty was statistically significant in all groups and the path did not differ in strength between groups. The only other statistically significant paths were between mother consistency of control and self-esteem certainty in the low-risk women group ( $z = -2.49, p < .05$ ) and between mother consistency of care in the high-risk women group ( $z = -1.97, p < .05$ ). This modified model had a marginal fit  $\chi^2(1522, n=182) = 2907.38, p < .01, RMSEA = .058, NNFI = .832, CFI = .861$ . A non-significant difference between the unconstrained full model and the constrained modified model,  $\Delta CFI \leq .01$ , indicated invariance of the model between the gender by depression status groups with exception of the associations between mother consistency of care for high-risk women and mother consistency of control for low-risk women. This modified model is shown in Figure 4. The modified model accounted for 80% of the variance in self-esteem certainty for low-risk women, 53% for high-risk women, 70% for low-risk men, and 81% for the high-risk men. Taken together, these results suggest that the associations between the mother inconsistent care and control with self-esteem certainty are more pronounced for women compared to men.



Figure 4. Structural models for the four gender by depression status groups. Circles represent the latent constructs, solid lines represent beta paths, and dotted lines represent dropped non-significant beta paths.



Structural Model Fit:  
 $\chi^2(1529, n=182) = 2907.38, p < .01, RMSEA = .058, NNFI = .832, CFI = .861.$

In order to examine the latent means of the four groups, the means of the mother constructs in the low-risk women group were first set to 0 in order to serve as the reference. The results indicated that both high-risk women ( $z = -3.46, p < .05$ ) and high-risk men ( $z = -1.98, p < .05$ ) reported significantly lower levels of trait self-esteem compared to low-risk women. High-risk women also reported significantly higher levels of father inconsistency of care ( $z = 2.52, p < .05$ ), and lower levels of father PBI care ( $z = -2.79, p < .05$ ), compared to the corresponding mother constructs in the low-risk women's group. High-risk men also reported higher levels of father inconsistency of care ( $z = 3.57, p < .05$ ) and lower levels of father PBI care ( $z = -3.49, p < .05$ ) compared to the corresponding mother constructs in the low-risk women's group. Further, low-risk men reported higher levels of father inconsistency of care ( $z = 2.52, p < .05$ ) and lower levels of both father PBI care ( $z = -2.21, p < .05$ ) and father PBI overprotection ( $z = 4.62, p < .05$ ) compared to the corresponding mother constructs in the low-risk women's group.

With the father constructs set to 0 in the low-risk women's group, high-risk men reported significantly higher levels of father inconsistency of care ( $z = 2.34, p < .05$ ) and significantly lower levels of father PBI care ( $z = -2.36, p < .05$ ) compared to the same constructs in the low-risk women's group. The low-risk men also reported significantly lower levels of father PBI overprotection ( $z = -3.68, p < .05$ ) compared to low-risk women.

Within the depression status by gender groups, high-risk women reported significantly higher father inconsistency of care ( $z = 3.51, p < .05$ ) and lower levels of

both father PBI care ( $z = -3.34, p < .05$ ) and overprotection ( $z = 6.00, p < .001$ ) compared to the corresponding mother constructs in the high-risk women's group. High-risk men reported significantly lower levels of father consistency of control ( $z = -2.57, p < .05$ ) and father PBI overprotection ( $z = -3.11, p < .05$ ) compared to the corresponding mother constructs within the high-risk men's group. Low-risk men also reported significantly higher levels of father inconsistency of care ( $z = 2.60, p < .05$ ) and lower levels of father inconsistency of control ( $z = 2.53, p < .05$ ), father PBI care ( $z = 3.47, p < .05$ ) and father overprotection ( $z = 4.47, p < .01$ ) compared to the corresponding mother constructs within the same group. Low-risk women also reported significantly higher levels of father inconsistency of care ( $z = 2.99, p < .05$ ) and lower levels of both father PBI care ( $z = -3.97, p < .05$ ) and overprotection ( $z = -3.27, p < .05$ ) compared to the corresponding mother constructs within this group.

In order to test the prediction that self-esteem uncertainty should not diminish significantly as a function of time since a previous episode(s) of depression, a two-way Pearson correlational analysis was conducted. The time since the end of the most recent depressive episode was not associated with self-esteem certainty,  $r(68) = .044, p = .72$ . Thus, no further analyses that involved time since previous depressive episode were conducted.

## Discussion

The purpose of the present study was to examine whether retrospective reports of inconsistent parenting behaviors would be associated with uncertain self-esteem and depression risk. The results of the initial CFAs indicated that inconsistent

parenting as measured by the COPS is indeed a unique construct that is different than the quality of parenting assessed by the Parental Bonding Instrument. Further, the data indicate that inconsistent control and care behaviors are distinct consistency of parenting variables. These COPS components were correlated with the corresponding PBI care and overprotection dimensions in a manner consistent with theory and suggest that the COPS is a viable measure of perceived parenting consistency.

In order to examine the influence of inconsistent parenting on self-esteem certainty and depression risk, the present study tested models that accounted for the general quality of parenting as well as level of trait self-esteem. Comparison of the depression status groups on the parenting variables as well as self-esteem certainty and trait self-esteem revealed several differences that are potential vulnerability factors for depression. Consistent with previous research, the high-risk group reported lower levels of self-esteem certainty compared to the low-risk group. Although unexpected, the high-risk group also reported significantly lower levels of trait self-esteem compared to the low-risk group. As discussed earlier in this paper, both uncertain self-esteem and low trait self-esteem have been linked to an increased risk for depression. There was not an association, however, between the reported time since the last depressive episode and current levels of self-esteem certainty. Taken together, the present data suggest that self-esteem certainty remains stable over time following a depressive episode and is associated with heightened risk for future depression episodes.

The two group depression status structural models tested the hypotheses that self-esteem uncertainty should be positively correlated with reported inconsistent parenting and that the association between uncertain self-esteem and inconsistent parenting should be stronger in the high-risk group compared to the low-risk group. The findings indicated that only consistency of mother care was associated with certainty of self-esteem in the high-risk group and only consistency of control was associated with self-esteem certainty in the low-risk group. Because the modified structural model controlled for the mutual influence of both of the maternal consistency constructs, the results suggest that inconsistent mother care behaviors are a stronger predictor of uncertain self-esteem than maternal control behaviors among individuals at high-risk for depression. Thus, these data suggest that the experience of inconsistent maternal care behaviors, such as inconsistent praise, acknowledgment and expressions of love contribute to the development of uncertain self-esteem and depression vulnerability.

It was also predicted that the high-risk group should report higher mean levels of inconsistent parenting (both mother and father) compared to the low-risk group as well as lower care and higher over-protection as measured by the PBI. The high-risk group did indeed report higher levels of both mother and father PBI over-protection, lower levels of father PBI care, and higher levels of father inconsistency of care (compared to mother inconsistency of care in the low-risk group). The significant differences between the high and low-risk groups on these parenting constructs are consistent with the idea that inconsistent parenting as well as low care and over-

protection are associated with depression risk. These findings suggest that inconsistent parenting behaviors might play an important role in the development of depression risk, above and beyond the influence of negative parenting behaviors in general.

Although there was not a general moderating effect of gender on the association between the parenting variables and self-esteem certainty, there were several mean differences between the genders on several variables. Men reported lower levels of father overprotection compared to women. Further, men reported higher levels of inconsistent care and lower levels of father care and overprotection as measured by the PBI compared to the corresponding mother constructs reported by women. Within the men's group, men reported higher levels of father inconsistency of care and lower levels of both father PBI care and overprotection compared to their ratings of their mothers on these constructs. These results suggest that men in the present sample perceive the nature of their father's behavior in a manner different from their perception of their mother's behaviors as well as the perceptions of their female counterparts. Although it is not known whether these gender based findings reflect the actual behaviors of the mothers and fathers of the present sample, these results are interesting because they seem to suggest that men might have different needs and expectations for paternal versus maternal consistency of involvement.

The four group gender by status model tests allowed for further investigation of potential gender based differences of the associations between inconsistent parenting, uncertain self-esteem, and depression risk. The association between

consistency of mother control and certainty of self-esteem was only found among low-risk women and the association between consistency of mother care and self-esteem certainty was only found among high-risk women. These results seem to suggest that mother consistency plays a stronger role in the development of self-esteem certainty for women than it does for men. Both high-risk women and high-risk men, however, reported higher levels of father inconsistency of care as well as lower levels of father PBI care. These results suggest that inconsistent maternal care and control behaviors are more likely to influence certainty of self-esteem among women compared to men. Further, these results suggest that problems with father care might be a particularly important variable that contributes to depression risk among both men and women.

In sum, the present findings support the hypothesis that parenting inconsistency is a potential risk factor for depression. The moderating effect of depression status suggests that inconsistent mother care behaviors might have a particular influence on the development of self-esteem certainty and subsequent risk for depression. Further, this influence appears to be more prominent among women than compared to men. These findings are interesting because they suggest that the experience of inconsistent maternal care behaviors is more likely to lead to uncertain self-esteem among women than for men. Both high-risk men and high-risk women, however, reported higher mean levels of both father and mother inconsistency of care behaviors. Thus, it appears that inconsistent care of both mothers and fathers might

contribute to depression risk although different risk pathways might exist for men and women.

The present study does have several limitations that could guide future research. The study relied on participant's retrospective self-report of their parent's behaviors rather than the direct observation of actual parenting consistency of behaviors. Thus, the COPS should assess what adolescents and young adults perceive their interactions with their parents to have been (and possibly still be). Although the direct observation of actual parenting inconsistency would be ideal, parenting consistency is difficult to observe given the potential inconsistency of inconsistent parenting behaviors over time. It may very well be the case, however, that a child's perception of his or her parents' consistency is of paramount importance for the development of self-esteem and depression risk. Future studies could use longitudinal methods that combine direct observation, peer report (e.g., other parent or sibling) and self-report assessment of consistency in order to assess the effects of both actual and perceived parenting consistency over time.

The present study intentionally limited inclusion to young adults whose biological parents were living in the same household during the time the child was 12 to 18 years old. Although the purpose of these constrictions was to help focus and control the assessment of the parenting constructs, these constrictions also limit the generalizability of the study findings. Inconsistent parenting practices have the potential to negatively influence the development of a child's sense of self throughout childhood. Adolescence, however, is a very important developmental period



because the individual establishes increasingly greater independence as well as social and romantic relationships with others. Thus, the effects of inconsistent interactions between parents and their children during this time period might have a particular influence on the young person's self-confidence as well as their security in relationships with others. Future studies that assess the consistency of parent/child interactions much earlier in a child's life, however, might provide additional insight into distal vulnerability factors for later depression or other psychological disorders.

For many young people, their primary caregiver may or may not be a biological parent. Many children are raised by a single parent, caregivers who live in separate households, multiple caregivers (e.g., both a step parent and biological parent), or other non-traditional situations (Lamb, 1998). These situations might have an important influence on a child's perception of the consistency of their caregiver(s) behaviors. Further, other variables such as cultural background and stressful life events that impact parental behavior might influence a person's perceptions of their caregiver's behaviors. It will be important in future research to investigate the consistency parenting behaviors in these types of familiar situations.

The present study tested theory based models that attempt to explain the association between inconsistent parenting, uncertain self-esteem, and depression risk. It is important to consider, however, that alternative models that include other parent and child factors, such as personality characteristics, availability of social supports, maternal or paternal physical or mental illness, or the experience of stressful life events could also explain the data. Future studies could test models that

specifically examine whether reports of inconsistent parenting are associated with increased relationship insecurity as well as depression risk following threats of or actual social exits. Studies could also examine the association between inconsistent parenting, uncertain self-esteem and adult attachment. The models tested in the present study, however, are consistent with the theory that inconsistent parenting might contribute to doubts about self-worth as well as heightened risk for depression.

In conclusion, the present study may provide important insights into the developmental origins of depression vulnerability. The data suggest that the experience of inconsistent mother care contributes to uncertain self-esteem and depression risk, particularly among young women. Further, higher levels of father inconsistency of care appear to be associated with depression risk among both men and women. These findings are important because they suggest that inconsistent parenting practices have an adverse influence on the development of the self-esteem of children and might make children more vulnerable for depression later in life.

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## Appendix A

### Consistency of Parenting: **Father Form**

This part of the questionnaire has to do with the consistency of parenting behaviors. Specifically, we are interested in whether your primary caretakers responded to your needs and behaviors when you believe that they should have. We are not interested in the frequency of behaviors per se, but rather how often the behaviors occurred when you believe that they should have occurred.

Before beginning, it is necessary to identify who served in the roles of parents for you. Although for many people their primary caregivers were their biological mother and father, we understand that other people may have served in the role of parents for you. In order to help us to understand this, please respond to the following questions. Again, your responses will be kept strictly confidential.

A. During the time period between **12** years old and **18** years old, who was your primary male parent/caretaker?

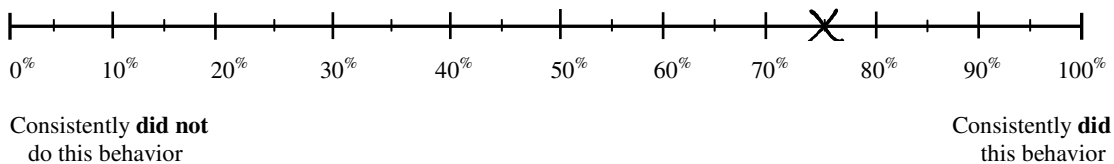
- Father
- Stepfather
- Grandfather
- Other (please indicate) \_\_\_\_\_

B. Did the person that you identified above live in your primary household during this same time period?  Yes  No

C. Below are statements that describe various behaviors of fathers. Please read each statement carefully and then indicate how consistent this person was at doing each behavior. For example, if he consistently did not do the behavior when you believe that he should have, you should place an X on the line closer to 0%. If he consistently did this behavior when you believe that he should have, then you should place an X closer to 100%.

Here is another example: Jane's father showed that he was satisfied with Jane about 75% of the time that Jane thought that her father should have. Jane should then place an X between 70% and 80% as shown below.

#### 1. He showed that he was satisfied with me.



### *Control/Autonomy*

- 36. He allowed me to choose my own way of doing things.
- 32. He tried to control everything that I did.
- 12. He let me decide things for myself.
- 34. He liked me to make my own decisions.
- 27. He made decisions for me when I had already made my own decision about something.
- 30. He tried to make me feel dependent on him.
- 8. He felt I could not look after myself unless he was around.
- 37. He supported my decisions.
- 4. He was very controlling over me.
- 28. He made me feel guilty about something that I failed at.
- 20. He insisted that I must do exactly what I was told to do.

### *Care/Warmth/Support*

- 10. He made me feel like I had a number of good qualities.
- 18. He made me feel that I was appreciated.
- 21. He showed that he loved me.
- 26. He made me feel good about myself.
- 22. He recognized my accomplishments.
- 17. He showed me that he cared about me.
- 35. He paid attention to me.
- 38. He showed that he was satisfied with me.
- 40. He made me feel that I had a lot to be proud of.
- 7. He made me feel good about my abilities.
- 13. He seemed to think of me often.
- 6. He told me that he was proud of me.
- 19. He made himself available to me when I needed help.
- 14. He spoke of the good things that I did.
- 29. He made an effort to be involved in my life.
- 33. He helped me when I needed it.
- 3. He praised me for my accomplishments.
- 9. He told me how much he loved me.
- 25. He talked with me a lot.
- 39. He showed or told me that he respected me.
- 11. He made me feel loved even if I did poorly in school or other activities.
- 5. He listened to my ideas and opinions.
- 2. He taught me to have respect for myself.
- 23. He helped me to learn from my mistakes.
- 1. He encouraged me to tell him how I felt about things.
- 31. He talked with me about my worries.
- 15. He told me that it was okay to make mistakes.
- 16. He made me feel ashamed about myself.
- 24. He was protective of me.



## Consistency of Parenting: **Mother Form**

This part of the questionnaire has to do with the consistency of parenting behaviors. Specifically, we are interested in whether your primary caretakers responded to your needs and behaviors when you believe that they should have. We are not interested in the frequency of behaviors per se, but rather how often the behaviors occurred when you believe that they should have occurred.

Before beginning, it is necessary to identify who served in the roles of parents for you. Although for many people their primary caregivers were their biological mother and father, we understand that other people may have served in the role of parents for you. In order to help us to understand this, please respond to the following questions. Again, your responses will be kept strictly confidential.

A. During the time period between **12** years old and **18** years old, who was your primary female parent/caretaker?

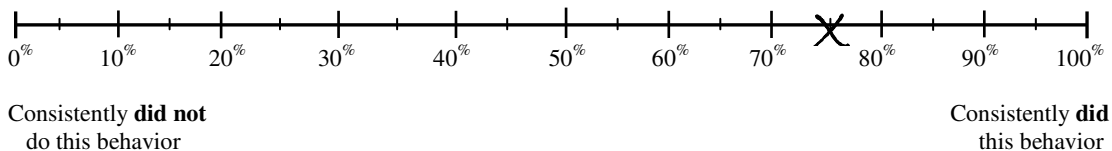
- Mother
- Stepmother
- Grandmother
- Other (please indicate) \_\_\_\_\_

B. Did the person that you identified above live in your primary household during this same time period?  Yes  No

C. Below are statements that describe various behaviors of mothers. Please read each statement carefully and then indicate how consistent this person was at doing each behavior. For example, if she consistently did not do the behavior when you believe that she should have, you should place an X on the line closer to 0%. If she consistently did this behavior when you believe that she should have, then you should place an X closer to 100%.

Here is another example: John's mother showed that she was satisfied with John about 75% of the time that John thought that his mother should have. John should then place an X between 70% and 80% as shown below.

### 1. She showed that she was satisfied with me.



### *Control/Autonomy*

36. She allowed me to choose my own way of doing things.
32. She tried to control everything that I did.
12. She let me decide things for myself.
34. She liked me to make my own decisions.
27. She made decisions for me when I had already made my own decision about something.
30. She tried to make me feel dependent on her.
8. She felt I could not look after myself unless she was around.
37. She supported my decisions.
4. She was very controlling over me.
28. She made me feel guilty about something that I failed at.
20. She insisted that I must do exactly what I was told to do.

### *Care/Warmth/Support*

10. She made me feel like I had a number of good qualities.
18. She made me feel that I was appreciated.
21. She showed that she loved me.
26. She made me feel good about myself.
22. She recognized my accomplishments.
17. She showed me that she cared about me.
35. She paid attention to me.
38. She showed that she was satisfied with me.
40. She made me feel that I had a lot to be proud of.
7. She made me feel good about my abilities.
13. She seemed to think of me often.
6. She told me that she was proud of me.
19. She made herself available to me when I needed help.
14. She spoke of the good things that I did.
29. She made an effort to be involved in my life.
33. She helped me when I needed it.
3. She praised me for my accomplishments.
9. She told me how much she loved me.
25. She talked with me a lot.
39. She showed or told me that she respected me.
11. She made me feel loved even if I did poorly in school or other activities.
5. She listened to my ideas and opinions.
2. She taught me to have respect for myself.
23. She helped me to learn from my mistakes.
1. She encouraged me to tell her how I felt about things.
31. She talked with me about my worries.
15. She told me that it was okay to make mistakes.
16. She made me feel ashamed about myself.
24. She was protective of me.

## Rosenberg Self-Esteem Scale (RSES)

**DIRECTIONS:** The following statements refer to attitudes that may or may not be true as they apply to you. Please indicate how much you agree or disagree with each of these items. Please base your answers on how YOU personally feel, not on how you think others feel or how you think a person should feel.

Answer by circling letters to the left of each item as follows:

SD	D	A	SA
Strongly Disagree	Disagree	Agree	Strongly Agree

- SD D A SA 1. I feel that I am a person of worth, at least on an equal basis with others.
- SD D A SA 2. I feel that I have a number of good qualities.
- SD D A SA 3. All in all, I am inclined to feel that I am a failure.
- SD D A SA 4. I am able to do things as well as most other people.
- SD D A SA 5. I feel I do not have much to be proud of.
- SD D A SA 6. I take a positive attitude toward myself.
- SD D A SA 7. On the whole, I am satisfied with myself.
- SD D A SA 8. I wish that I could have more respect for myself.
- SD D A SA 9. I certainly feel useless at times.
- SD D A SA 10. At times I think that I am no good at all.

## Luxton & Wenzlaff Self-Esteem Certainty Measure

DIRECTIONS: Please transcribe your responses from each item on the previous page to each item below. Next, indicate how quick your response came to mind, how certain you are of your response, and how likely you might change your response in the near future.

SD D A SA 1. I feel that I am a person of worth, at least on an equal basis with others.

How quickly did the response that you indicated come to mind?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Quickly Quickly

How certain are you of the response that you indicated?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Certain Certain

How likely might you change your response in the near future?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Likely Likely

SD D A SA 2. I feel that I have a number of good qualities.

How quickly did the response that you indicated come to mind?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Quickly Quickly

How certain are you of the response that you indicated?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Certain Certain

How likely might you change your response in the near future?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Likely Likely

SD D A SA 3. All in all, I am inclined to feel that I am a failure.

How quickly did the response that you indicated come to mind?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Quickly Quickly

How certain are you of the response that you indicated?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Certain Certain

How likely might you change your response in the near future?  
 Not at all 1-----2-----3-----4-----5-----6-----7-----8-----9-----10 Very  
 Likely Likely

SD D A SA 4. I am able to do things as well as most other people.

How quickly did the response that you indicated come to mind?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Quickly Quickly

How certain are you of the response that you indicated?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Certain Certain

How likely might you change your response in the near future?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Likely Likely

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SD D A SA 5. I feel I do not have much to be proud of.

How quickly did the response that you indicated come to mind?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Quickly Quickly

How certain are you of the response that you indicated?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Certain Certain

How likely might you change your response in the near future?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Likely Likely

---

SD D A SA 6. I take a positive attitude toward myself.

How quickly did the response that you indicated come to mind?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Quickly Quickly

How certain are you of the response that you indicated?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Certain Certain

How likely might you change your response in the near future?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Likely Likely

---

SD D A SA 7. On the whole, I am satisfied with myself.

How quickly did the response that you indicated come to mind?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Quickly Quickly

How certain are you of the response that you indicated?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Certain Certain

How likely might you change your response in the near future?  
Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Likely Likely

---

SD D A SA 8. I wish that I could have more respect for myself.

How quickly did the response that you indicated come to mind?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Quickly Quickly

How certain are you of the response that you indicated?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Certain Certain

How likely might you change your response in the near future?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Likely Likely

---

SD D A SA 9. I certainly feel useless at times.

How quickly did the response that you indicated come to mind?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Quickly Quickly

How certain are you of the response that you indicated?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Certain Certain

How likely might you change your response in the near future?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Likely Likely

---

SD D A SA 10. At times I think that I am no good at all.

How quickly did the response that you indicated come to mind?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Quickly Quickly

How certain are you of the response that you indicated?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Certain Certain

How likely might you change your response in the near future?

Not at all 1----2----3----4----5----6----7----8----9----10 Very  
Likely Likely

---

### Parental Bonding Instrument (Mother Form)

This set of questions lists various attributes and behaviors of parents. Please circle the number that most accurately reflects how you remember your parents during your first 16 years, that is, how accurately each statement describes your mother and father during this time. The first set of statements are for your mother and the second set are for your father.

MOTHER	0	1	2	3
	Very Like	Moderately Like	Moderately Unlike	Very Unlike
1. Spoke to me with a warm and friendly voice	0	1	2	3
2. Did not help me as much as I needed	0	1	2	3
3. Let me do those things I liked doing	0	1	2	3
4. Seemed emotionally cold to me	0	1	2	3
5. Appeared to understand my problems and worries	0	1	2	3
6. Was affectionate to me	0	1	2	3
7. Liked me to make my own decisions	0	1	2	3
8. Did not want me to grow up	0	1	2	3
9. Tried to control everything I did	0	1	2	3
10. Invaded my privacy	0	1	2	3
11. Enjoyed talking things over with me	0	1	2	3
12. Frequently smiled at me	0	1	2	3
13. Tended to baby me	0	1	2	3
14. Did not seem to understand what I wanted or needed	0	1	2	3
15. Let me decide things for myself	0	1	2	3
16. Made me feel I wasn't wanted	0	1	2	3
17. Could make me feel better when I was upset	0	1	2	3
18. Did not talk with me very much	0	1	2	3
19. Tried to make me dependent on her	0	1	2	3
20. Felt I could not look after myself unless she was around	0	1	2	3
21. Gave me as much freedom as I wanted	0	1	2	3
22. Let me go out as often as I wanted	0	1	2	3
23. Was overprotective of me	0	1	2	3
24. Did not praise me	0	1	2	3
25. Let me dress any way I pleased	0	1	2	3

### Parental Bonding Instrument (Father Form)

Please circle the number that most accurately reflects how you remember your parents during your first 16 years.

FATHER	0 Very Like	1 Moderately Like	2 Moderately Unlike	3 Very Unlike
1. Spoke to me with a warm and friendly voice	0	1	2	3
2. Did not help me as much as I needed	0	1	2	3
3. Let me do those things I liked doing	0	1	2	3
4. Seemed emotionally cold to me	0	1	2	3
5. Appeared to understand my problems and worries	0	1	2	3
6. Was affectionate to me	0	1	2	3
7. Liked me to make my own decisions	0	1	2	3
8. Did not want me to grow up	0	1	2	3
9. Tried to control everything I did	0	1	2	3
10. Invaded my privacy	0	1	2	3
11. Enjoyed talking things over with me	0	1	2	3
12. Frequently smiled at me	0	1	2	3
13. Tended to baby me	0	1	2	3
14. Did not seem to understand what I wanted or needed	0	1	2	3
15. Let me decide things for myself	0	1	2	3
16. Made me feel I wasn't wanted	0	1	2	3
17. Could make me feel better when I was upset	0	1	2	3
18. Did not talk with me very much	0	1	2	3
19. Tried to make me dependent on her	0	1	2	3
20. Felt I could not look after myself unless she was around	0	1	2	3
21. Gave me as much freedom as I wanted	0	1	2	3
22. Let me go out as often as I wanted	0	1	2	3
23. Was overprotective of me	0	1	2	3
24. Did not praise me	0	1	2	3
25. Let me dress any way I pleased	0	1	2	3



## Beck Depression Inventory

On this questionnaire are groups of statements. Please read each group of statements carefully. Then pick out the one statement in each group that best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure to read all the statements in each group before making your choice.

1.   0    I do not feel sad.  
     1    I feel sad.  
     2    I am sad all the time and I can't snap out of it.  
     3    I am so sad or unhappy that I can't stand it.
  
2.   0    I am not particularly discouraged about the future.  
     1    I feel discouraged about the future.  
     2    I feel I have nothing to look forward to.  
     3    I feel that the future is hopeless and that things cannot improve.
  
3.   0    I do not feel like a failure.  
     1    I feel I have failed more than the average person.  
     2    As I look back on my life, all I can see is a lot of failures.  
     3    I feel I am a complete failure as a person.
  
4.   0    I get as much satisfaction out of things I used to.  
     1    I don't enjoy things the way I used to.  
     2    I don't get real satisfaction out of anything anymore.  
     3    I am dissatisfied or bored with everything.
  
5.   0    I don't feel particularly guilty.  
     1    I feel guilty a good part of the time.  
     2    I feel quite guilty most of the time.  
     3    I feel guilty all of the time.
  
6.   0    I don't feel disappointed in myself.  
     1    I am disappointed in myself.  
     2    I am disgusted with myself.  
     3    I hate myself.
  
7.   0    I don't feel I am being punished.  
     1    I feel I may be punished.  
     2    I expect to be punished.  
     3    I feel I am being punished.
  
8.   0    I don't feel I am any worse than anybody else.  
     1    I am critical of myself for my weaknesses or mistakes.  
     2    I blame myself all the time for my faults.  
     4    I blame myself for everything bad that happens.

9. 0 I don't have any thoughts of killing myself.  
 1 I have thought of killing myself, but I would not carry them out.  
 2 I would like to kill myself.  
 3 I would kill myself if I had the chance.
10. 0 I don't cry any more than usual.  
 1 I cry more now than I used to.  
 2 I cry all the time now.  
 3 I used to be able to cry, but now I can't even cry though I want to.
11. 0 I am no more irritated now than I ever am.  
 1 I get annoyed or irritated more easily than I used to.  
 2 I feel irritated all the time now.  
 3 I don't get irritated at all by the things that used to irritate me.
12. 0 I have not lost interest in other people.  
 1 I am less interested in other people than I used to be.  
 2 I have lost most of my interest in other people.  
 3 I have lost all of my interest in other people.
13. 0 I make decisions about as well as I ever could.  
 1 I put off making decisions more than I used to.  
 2 I have greater difficulty in making decisions than before.  
 3 I can't make decisions at all anymore.
14. 0 I don't feel I look any worse than I used to.  
 1 I am worried that I am looking old or unattractive.  
 2 I feel that there are permanent changes in my appearance that make me look unattractive.  
 3 I believe that I look ugly.
15. 0 I can work about as well as before.  
 1 It takes an extra effort to get started at something.  
 2 I have to push myself very hard to do anything.  
 3 I can't do any work at all.
16. 0 I can sleep as well as usual.  
 1 I don't sleep as well as I used to.  
 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.  
 3 I wake up several hours earlier than I used to and cannot get back to sleep.
17. 0 I don't get more tired than usual.  
 1 I get tired more easily than I used to.  
 2 I get tired from doing almost anything.  
 3 I am too tired to do anything.

18. 0 My appetite is no worse than usual.  
1 My appetite is not as good as it used to be.  
2 My appetite is much worse now.  
3 I have no appetite at all anymore.
19. 0 I haven't lost much weight, if any, lately.  
1 I have lost more than 5 pounds. I am purposely trying to lose weight.  
2 I have lost more than 10 pounds. By eating less? Yes\_\_\_\_\_ No\_\_\_\_\_.  
3 I have lost more than 15 pounds.
20. 0 I am no more worried about my health than usual.  
1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.  
2 I am very worried about physical problems and it's hard to think of much else.  
3 I am so worried about my physical problems that I cannot think of anything else.
21. 0 I have not noticed any recent changes in my interest in sex.  
1 I am less interested in sex than I used to be.  
2 I am much less interested in sex now.  
3 I have lost interest in sex completely.

## INVENTORY TO DIAGNOSE DEPRESSION – LIFETIME VERSION

Try to remember THE WEEK IN YOUR LIFE YOU FELT THE MOST DEPRESSED.

What was the approximate starting and ending date of the episode you have in mind?  
began: \_\_\_\_\_ ended: \_\_\_\_\_

Circle the number of the one statement that best describes how you felt. Remember to also circle whether you felt that way for MORE or LESS than two weeks.

- 1) 0 I did not feel sad or depressed.  
1 I occasionally felt sad or down.  
2 I felt sad most of the time, but I was able to snap out of it.  
3 I felt sad all the time, and I couldn't snap out of it.  
4 I was so sad or unhappy that I couldn't stand it.

This lasted MORE/LESS than two weeks (circle one)

- 2) 0 My energy level was normal.  
1 My energy level was a little lower than normal.  
2 I got tired more easily and had less energy than is usual.  
3 I got tired from doing almost anything.  
4 I felt tired or exhausted almost all the time.

This lasted MORE/LESS than two weeks (circle one)

- 3) 0 I was not feeling more restless and fidgety than usual.  
1 I felt a little more restless or fidgety than usual.  
2 I was very fidgety, and I had some difficulty sitting still in a chair.  
3 I was extremely fidgety, and I paced a little bit almost everyday.  
4 I paced more than an hour per day, and I couldn't sit still.

This lasted MORE/LESS than two weeks (circle one)

- 4) 0 I did not talk or move more slowly than usual.  
1 I talked a little slower than usual.  
2 I spoke slower than usual, and it took me longer to respond to questions, but I could still carry on a normal conversation.  
3 Normal conversations were difficult for me because it was hard to start talking.  
4 I felt extremely slowed down physically, like I was stuck in mud.

This lasted MORE/LESS than two weeks (circle one)

- 5) 0 I did not lose interest in my usual activities.  
1 I was a little less interested in 1 or 2 of my usual activities.  
2 I was less interested in several of my usual activities.  
3 I lost most of my interest in almost all of my usual activities.  
4 I lost interest in all of my usual activities.

This lasted MORE/LESS than two weeks (circle one)

- 6) 0 I got as much pleasure out of my usual activities as usual.  
1 I got a little less pleasure from 1 or 2 of my usual activities.  
2 I got less pleasure from several of my usual activities.  
3 I got almost no pleasure from several of my usual activities.  
4 I got no pleasure from any of the activities which I usually enjoy.

This lasted MORE/LESS than two weeks (circle one)

- 7) 0 My interest in sex was normal.  
1 I was only slightly less interested in sex than usual.  
2 There was a noticeable decrease in any interest in sex.  
3 I was much less interested in sex then.  
4 I lost all interest in sex.

This lasted MORE/LESS than two weeks (circle one)

- 8) 0 I did not feel guilty.  
1 I occasionally felt a little guilty.  
2 I often felt guilty.  
3 I felt quite guilty most of the time.  
4 I felt extremely guilty most of the time.

This lasted MORE/LESS than two weeks (circle one)

- 9) 0 I did not feel like a failure.  
1 My opinion of myself was occasionally a little low.  
2 I felt I was inferior to most people.  
3 I felt like a failure.  
4 I felt I was a totally worthless person.

This lasted MORE/LESS than two weeks (circle one)

- 10) 0 I didn't have any thoughts of death or suicide.  
1 I occasionally thought life was not worth living.  
2 I frequently thought of dying in passive ways (such as going to sleep and not waking up) or that I'd be better off dead.  
3 I had frequently thoughts of killing myself.  
4 I tried to kill myself.

This lasted MORE/LESS than two weeks (circle one)

- 11) 0 I could concentrate as well as usual.  
1 My ability to concentrate was lightly worse than usual.  
2 My attention span was not as good as usual and I had difficulty collecting my thoughts; but this didn't cause any problems.  
3 My ability to read or hold a conversation was not as good as usual.  
4 I could not read, watch TV, or have a conversation without great difficulty.

This lasted MORE/LESS than two weeks (circle one)

- 12) 0 I made decisions as well as usual.  
1 Decision making was slightly more difficult than usual.  
2 It was harder and took longer to make decisions, but I did make them.  
3 I was unable to make some decisions.  
4 I couldn't make any decisions at all.

This lasted MORE/LESS than two weeks (circle one)

- 13) 0 My appetite was not less than normal.  
1 My appetite was slightly worse than usual.  
2 My appetite was clearly not as good as usual, but I still ate.  
3 My appetite was much worse.  
4 I had no appetite at all, and I had to force myself to eat even a little.

This lasted MORE/LESS than two weeks (circle one)

- 14) 0 I didn't lose any weight.  
1 I lost less than 5 pounds.  
2 I lost between 5-10 pounds.  
3 I lost between 11-25 pounds.  
4 I lost more than 25 pounds.

This lasted MORE/LESS than two weeks (circle one)

- 15) 0 My appetite was not greater than normal.  
1 My appetite was slightly greater than usual.  
2 My appetite was clearly greater than usual.  
3 My appetite was much greater than usual.  
4 I felt hungry all the time.

This lasted MORE/LESS than two weeks (circle one)

- 16) 0 I didn't gain any weight.  
1 I gained less than 5 pounds.  
2 I gained between 5-10 pounds.  
3 I gained between 11-25 pounds.  
4 I gained more than 25 pounds.

This lasted MORE/LESS than two weeks (circle one)

- 17) 0 I was not sleeping less than usual.  
1 I occasionally had light difficulty sleeping.  
2 I clearly didn't sleep as well as usual.  
3 I slept about half my normal amount of time.  
4 I slept less than 2 hours per night.

This lasted MORE/LESS than two weeks (circle one)

- 18) 0 I was not sleeping more than normal.  
1 I occasionally slept more than usual.  
2 I frequently slept at least 1 hour more than usual.  
3 I frequently slept at least 2 hours more than usual.  
4 I frequently slept at least 3 hours more than usual.

This lasted MORE/LESS than two weeks (circle one)

- 19) 0 I did not feel anxious, nervous, or tense.  
1 I occasionally felt a little anxious.  
2 I often felt anxious.  
3 I felt anxious most of the time.  
4 I felt terrified and near panic.

This lasted MORE/LESS than two weeks (circle one)

- 20) 0 I did not feel discouraged about the future.  
1 I occasionally felt a little discouraged about the future.  
2 I often felt discouraged about the future.  
3 I felt very discouraged about the future most of the time.  
4 I felt that the future was hopeless and that things would never improve.

This lasted MORE/LESS than two weeks (circle one)

- 21) 0 I did not feel irritated or annoyed.  
1 I occasionally got a little more irritated than usual.  
2 I got irritated or annoyed by things that usually didn't bother me.  
3 I felt irritated or annoyed almost all the time.  
4 I felt so depressed that I didn't get irritated at all by things that would normally bother me.

This lasted MORE/LESS than two weeks (circle one)

- 22) 0 I was not worried about my physical health.  
1 I was occasionally concerned about bodily aches and pains.  
2 I was worried about my physical health.  
3 I was very worried about my physical health.  
4 I was so worried about my physical health that I could not think about anything else.

This lasted MORE/LESS than two weeks (circle one)

- 23) 0 This bout of depression is the only one I have ever had.  
1 I have had an additional period of depression similar to the one I already described.  
2 I have had two more periods of depression similar to the one I already described.  
3 I have had three more periods of depression similar to the one I already described.  
4 I have had four or more periods of depression similar to the one I already described.

- 24) 0 I did not get any treatment for how I felt.  
1 I got psychotherapy, but did not take anti-depressant medication.  
2 I took anti-depressant medication, but did not get psychotherapy.  
3 I got psychotherapy and took anti-depressant medication(s).  
4 I was admitted to a psychiatric hospital for treatment.



## Self-Report SCID

For this questionnaire, you will be asked to recall a period of time in your life that you felt down or depressed. If you can recall more than one time, think of the time that you felt the worst. Your responses will be kept strictly confidential.

1. Have you ever had a period of time when you were feeling depressed or down most of the day nearly every day?       Yes       No (if no, skip to question 1b.).

a. If you answered yes, please briefly explain what that was like in the space below.

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b. If you answered no, please briefly explain a time when you felt moderately sad or down.

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c. Did this experience last longer than two weeks?      Yes       No

d. Please indicate how long it lasted (estimate)

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e. How old were you (in years) when you experienced this?

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2. During that time, did you lose interest or pleasure in things that you usually enjoyed?

Yes       No (if no, skip to question 2b.)

a. If you answered yes, please briefly explain what that was like in the space below.

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b. If you answered no, briefly explain any other time when you lost interest or pleasure in things that you usually enjoyed.

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c. When was this? \_\_\_\_\_

d. Did it last longer than two weeks?  Yes  No

e. Was it nearly every day?  Yes  No

3. During this time period did you notice any changes in your appetite (were you eating more or less)?

Yes  No (if no, skip to question #4)

a. If yes, was it nearly everyday?  Yes  No

b. Did you experience any weight gain (not intentional)?  Yes  No

c. Did you experience any weight loss during that period (when not dieting)?

Yes  No

4. Did you notice any changes in your sleep during this period (trouble falling asleep, trouble staying asleep, or waking too early)?

Yes  No (If no, skip to 4c.)

a. If yes, please briefly explain:

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b. Was it nearly every night?  Yes  No

c. If no, how many hours of sleep did you sleep per night on average (estimate)?

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5. During this same time period were you so fidgety or restless that you were unable to sit still?

Yes  No (if no, skip to

5c.)

a. If you answered yes did other people notice?  Yes  No

b. Was this nearly every day during this period?  Yes  No

c. If you answered no, what about the opposite—were you talking or moving more slowly than what was normal for you?

Yes  No (if no, skip to question # 6)

d. Was it nearly everyday?  Yes  No

e. Did other people notice?  Yes  No

6. What was your energy like during this period?

Normal  Felt fatigued/lack of energy

Was this nearly every day?  Yes  No

7. During this same time period did you have negative feelings about your self such as feelings of worthlessness?  Yes  No

Was this nearly every day?  Yes  No

8. Did you have the feeling of being guilty about things you had done or not done?

Yes  No (If no, skip to question # 9)

Was this nearly every day?  Yes  No

9. During this same time period did you have trouble thinking or concentrating?

Yes  No (skip to 9b.)

a. If yes, what kinds of things did it interfere with?

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b. If no, please describe any other time that you experienced trouble thinking or concentrating.

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10. During this same time period was it difficult to make decisions about everyday things?

Yes  No

11. During this same time period were things so bad that you were thinking a lot about death or that you would be better off dead?

Yes  No (if no, skip to question # 12)

a. Did you think about hurting yourself?  Yes  No

b. If you responded yes, did you hurt yourself?  Yes  No

12. Just before this began, were you physically ill?  Yes  No

If yes, what did your doctor say (what was your condition)?

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13. Just before this began, were you using any medications?

If yes, was there any change in the amount that you were using?  Yes  No

15. Did this begin soon after someone close to you died?  Yes  No

If yes, please briefly explain

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16. Have you ever had a period of time when you were feeling so good, high, excited, or hyper that other people thought you were not your normal self or you were so hyper that you got into trouble?

Yes  No (Skip to question 16b.)

a. If yes, please briefly explain:

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b. If no, please briefly describe a time in your life when you felt very happy.

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17. Has there ever been a period of time when you were so irritable that you found yourself shouting at people or starting fights or arguments?

Yes  No (if no, please continue on next

page)

a. If yes, did you notice that you were shouting at people that you did not know?

Yes  No

b. If yes, please explain what that was like:

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c. How long did it last? \_\_\_\_\_

## Appendix B.

### Consistency of Parenting Scale (COPS) Development

In order to capture the core dimensions of parenting behaviors, the new consistency of parenting scale (COPS) was constructed of modified items from existing parenting measures, including the CRPBI and PBI, as well as new items that reflect typical parenting behaviors. Focus group discussions with undergraduate students were also conducted in order to further determine what types of parenting behaviors might have the greatest impact on self-esteem and risk for depression. The initial item pool consisted of 68 items that reflect core parenting behaviors. Two forms of the measure were created: a mother form and a father form that require respondents to report consistency of parenting behaviors of both parents separately.

#### *Procedure*

The scale development sample consisted of 196 undergraduate students at the University of Kansas. In order to provide a more focused examination of parenting inconsistency and accurate comparison of mothers and fathers, the initial sample was constrained to participants whose biological parents were married and living in the same household. This left a final sample of 140 participants that consisted of 54 men and 86 women. Ages ranged from 18 to 28 years, with a mean age of 19.7.

Participants were assembled in small groups and completed the 68 item COPS measure with the order of mother and father forms counterbalanced between participants.

### *Factor Analysis*

Exploratory factor analyses using maximum likelihood estimation with Harris-Kaiser (oblique) rotation were conducted on the mother and father COPS in order to examine the factor structure of the scales and the contribution of individual items. This analysis resulted in a two-factor solution for both the mother and father versions. For the mother COPS, the rotated factors together accounted for 54.77% of the variance, with the first factor accounting for 16.55% of the variance and the second factor accounting for 38.22% of the variance. For the father version, the rotated factors together accounted for 54.74% of the variance, with the first factor accounting for 18.65% of the variance and the second factor accounting for 36.09% of the variance. Table 1 presents items on these factors and their rotated factor loadings (standardized regression coefficients).

The first factor is made up of items that reflect behaviors that involve autonomy and control that reflect. The second factor consists of items that reflect parental praise, warmth and care. These factors are generally consistent with the core dimensions of parenting behaviors described in the parenting behaviors literature, including those behaviors reflected in the Parental Bonding Instrument.

### *Internal Consistency*

Reliability analysis resulted in a Chronbach's Alpha of .95 for the overall mother COPS and .96 for the father COPS. All items to scale correlations were greater than .30 and statistically significant at .05.

### *Measure Reliability*

In order to examine test-retest reliability of the COPS measures, participants were given the option to return and complete a follow-up survey approximately four weeks later. Seventy four participants (44 women, 30 men) completed the COPS measure at time two. The test-retest reliability coefficients were .85 for the mother COPS and .85 for the Father COPS.

Table 1.

### *Mother COPS Factors and Loadings*

<u>Factor and Items</u>	<u>Loading</u>
<i>Control/Autonomy</i>	
36. She allowed me to choose my own way of doing things.	0.75
32. She tried to control everything that I did.	0.69
12. She let me decide things for myself.	0.68
34. She liked me to make my own decisions.	0.68
27. She made decisions for me when I had already made my own decision about something.	0.66
30. She tried to make me feel dependent on her.	0.58
8. She felt I could not look after myself unless she was around.	0.55
37. She supported my decisions.	0.46
4. She was very controlling over me.	0.46
28. She made me feel guilty about something that I failed at.	0.39
20. She insisted that I must do exactly what I was told to do.	0.36
<i>Care/Warmth/Support</i>	
10. She made me feel like I had a number of good qualities.	0.87
18. She made me feel that I was appreciated.	0.86
21. She showed that she loved me.	0.86
26. She made me feel good about myself.	0.82

22. She recognized my accomplishments.	0.81
17. She showed me that she cared about me.	0.80
35. She paid attention to me.	0.78
38. She showed that she was satisfied with me.	0.78
40. She made me feel that I had a lot to be proud of.	0.77
7. She made me feel good about my abilities.	0.77
13. She seemed to think of me often.	0.76
6. She told me that she was proud of me.	0.75
19. She made herself available to me when I needed help.	0.74
14. She spoke of the good things that I did.	0.74
29. She made an effort to be involved in my life.	0.73
33. She helped me when I needed it.	0.72
3. She praised me for my accomplishments.	0.72
9. She told me how much she loved me.	0.71
25. She talked with me a lot.	0.66
39. She showed or told me that she respected me.	0.65
11. She made me feel loved even if I did poorly in school or other activities.	0.61
5. She listened to my ideas and opinions.	0.59
2. She taught me to have respect for myself.	0.58
23. She helped me to learn from my mistakes.	0.56
1. She encouraged me to tell her how I felt about things.	0.54
31. She talked with me about my worries.	0.52
15. She told me that it was okay to make mistakes.	0.44
16. She made me feel ashamed about myself.	0.37
24. She was protective of me.	0.18



Table 2.

*Father COPS factor and Loadings*

Factor and Items	Loading
<i>Control/Autonomy</i>	
32. He tried to control everything that I did.	0.82
27. He made decisions for me when I had already made my own decision about something.	0.66
30. He tried to make me feel dependent on him.	0.64
8. He felt I could not look after myself unless he was around.	0.60
34. He liked me to make my own decisions.	0.58
12. He let me decide things for myself.	0.57
36. He allowed me to choose my own way of doing things.	0.55
16. He made me feel ashamed about myself.	0.50
28. He made me feel guilty about something that I failed at.	0.39
4. He was very controlling over me.	0.37
20. He insisted that I must do exactly what I was told to do.	0.26
<i>Care/Warmth/Support</i>	
10. He made me feel like I had a number of good qualities.	0.90
22. He recognized my accomplishments.	0.87
40. He made me feel that I had a lot to be proud of.	0.85
7. He made me feel good about my abilities.	0.84
21. He showed that he loved me.	0.82
17. He showed me that he cared about me.	0.81
6. He told me that he was proud of me.	0.80
38. He showed that he was satisfied with me.	0.79
26. He made me feel good about myself.	0.78
3. He praised me for my accomplishments.	0.78
14. He spoke of the good things that I did.	0.77
18. He made me feel that I was appreciated.	0.77
35. He paid attention to me.	0.71

2. He taught me to have respect for myself.	0.69
39. He showed or told me that he respected me.	0.65
13. He seemed to think of me often.	0.64
11. He made me feel loved even if I did poorly in school or other activities.	0.63
29. He made an effort to be involved in my life.	0.59
9. He told me how much he loved me.	0.57
33. He helped me when I needed it.	0.54
5. He listened to my ideas and opinions.	0.54
23. He helped me to learn from my mistakes.	0.52
19. He made himself available to me when I needed help.	0.47
37. He supported my decisions.	0.46
15. He told me that it was okay to make mistakes.	0.40
25. He talked with me a lot.	0.40
24. He was protective of me.	0.31
1. He encouraged me to tell him how I felt about things.	0.25
31. He talked with me about my worries.	0.20