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Vulnerabilities to depression, anxiety and interpersonal problems: the role of parental styles, schemas and coping styles

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VULNERABILITIES TO DEPRESSION, ANXIETY AND INTERPERSONAL PROBLEMS: THE ROLE OF PARENTAL STYLES, SCHEMAS AND COPING STYLES

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ABSTRACT

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Abstract

Cognitive theory proposes that maladaptive schemas influence the development of anxious and depressive symptoms and early parental experiences have been proposed to influence schema development. In this current study, measures of depressive and anxious pathology, parenting styles, coping styles and interpersonal problems were administered to 224 undergraduate students. The main purpose the study was to test the cognitive model and the hypothesis that early maladaptive schemas (EMS) as defined by Young (1994) mediate the relationship between parenting styles and anxious and depressive pathology. Results indicated that EMSs do play an important mediational role in relationship to both anxious and depressive pathology. The second goal of the study was to further test the content specificity hypothesis in relationship to both anxious and depressive symptoms. Results of the study provided inconsistent support for the content-specificity hypothesis. The final two goals of the study was to investigate the role EMS

play in the development of interpersonal problems and the role EMSs play in the development of maladaptive coping styles. Results of the study indicated that EMS play an important role in the development of interpersonal problems and EMSs play an important role in the development of maladaptive coping styles.

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Chapter 1: Vulnerabilities to Depression, Anxiety and Interpersonal Problems: The Role of Parental Styles, Schemas and Coping Styles

The diathesis-stress model suggests that individuals have certain predispositions that make them vulnerable to the development of psychopathology under stress (Lee, 1999). One predisposing factor that has been studied within the literature is maladaptive schemas (Beck, 1976; Young, 1993). Schemas are defined as general knowledge about situations and events that guide our recognition and understanding of new information (Lee, 1999). Beck (1976) suggested that individuals develop specific types of maladaptive schemas that increase their vulnerability to experience specific types of psychopathology under stressful situations.

More recently, Young (1990), integrating cognitive (Beck, 1976) and psychodynamic theory (Bowlby, 1988), elaborated on the role of schemas in the development of pathology and developed his own working model of the etiology of affective disorders and personality disorders. Young (1993) proposed that Early Maladaptive Schemas (EMSs) develop during childhood via interpersonal interactions and that those interactions influence the formation of a template that guides the interpretation of latter experience. The presence of specific types of EMSs in turn increases the vulnerability that an individual will experience specific types of psychopathology like, paranoia, personality disorders, anxiety and depression (Young 1990, 2003).

In order to measure EMSs and further investigate his working model, Young developed the Schema Questionnaire (YSQ; Young & Brown, 1990). The YSQ measures 18 EMS that are theoretically and clinically based on Young's model of early schema development. The 18 EMSs are organized into five domains: *Disconnection and Rejection, Impaired Autonomy and Performance Impaired limits and, Other Directedness Overindulgence and Inhibition.* The Young Schema Questionnaire-Short Form (YSQ-SF; Young & Brown, 1994) has recently been developed and constitutes a briefer version of the YSQ which measures 15 of the 18 EMSs.

Parental Styles and the Relationship to Schema Development and Psychopathology

Earlier psychodynamic theorists proposed that early attachment experience with parents are the factors most influential in the development of latter psychopathology. Previous research has investigated that link between early attachment experience, in particular negative parental styles, with the development of such pathology as depression and anxious symptoms. Barumind (1968) investigated the relationship between both maternal and paternal parenting styles and anxious and depressive symptoms in an adolescent non-clinical sample. Results indicated moderately low, significant and positive correlations between negative parenting styles and depressive and anxious pathology. Results also indicated moderately low, significant and negative correlations between adaptive parenting styles and depressive and anxious pathology.

Xia & Qian (2001) also investigated the relationship between parenting styles and depressive and anxious symptoms, but they utilized an adult non-clinical sample. Results indicated moderately low, significant and positive correlations between negative parenting styles and depressive and anxious pathology. Results also indicated moderately

low, significant and negative correlations between adaptive parenting styles and depressive and anxious pathology.

Parker (1979b &1981) investigated the relationship between parenting styles and depressive and anxious pathology in a clinical sample. Parker (1981) investigated the relationship between parenting styles and depressive pathology and results indicated moderate, significant and positive correlations between negative parenting styles and depressive pathology. Results also indicated moderately significant and negative correlations between adaptive parenting styles and depressive pathology. Parker (1979b) investigated the relationship between parenting styles and anxious symptoms and results indicated moderately low, significant and positive correlations between negative parenting styles and anxious pathology. Results also indicated moderately significant and negative correlations between adaptive parenting styles and depressive and anxious pathology.

The first conclusion that can be made based on the results of the four studies is that maladaptive parenting characteristics and behaviors such as rejection/ unresponsiveness and controlling/overprotection are significantly associated with pathology like depression and anxiety. The second conclusion is that healthy parental characteristics and behaviors such as autonomy, support, warmth, firmness and protection are negatively associated with anxious and depressive pathology. The third conclusion, based on the moderately low correlations, is that there are possibly other factors that might be influencing the relationship between early experience and the development of psychopathology.

Despite these encouraging findings, current psychodynamic theorists have moved away from the idea that the relationship between early experience and pathology is absolute. Rather early experience is believed to be the first mechanism that might guide the direction of a person's path towards or away from healthy psychological well-being (Lenzenweger, 2005). Furthermore, current psychodynamic theory and cognitive theories propose that schemas or internal working models may mediate the relationship between early experience and the development of pathology (Bowlby, 1988; Young, 2003). Building on the principle that relationship between early experience and pathology is not absolute, Young (1990) and Bowlby (1988) argue that early interactions with caregivers, most notably parental styles contribute to the development of schemas and working models latter in life. Young states that negative early interactions with parents leads to the development of EMS latter in life.

Despite these theoretical developments, there are only a few studies that have investigated the relationship between parenting styles, schemas, and negative affective conditions. Parrish and McCluskey (1992) investigated the relationship between schemas and retrospective reports of parental styles in a non-clinical sample. Results indicated that there were significant negative correlations between adaptive parental styles and negative schemas. Results also indicated that there were significant positive relationship between maladaptive parenting styles and negative schemas.

Anderson and Perris (1999) investigated the relationship between schemas and retrospective reports of parental styles in a non-clinical population, but they utilized different assessment tools. Results indicated that there were significant negative correlations between adaptive parental styles and negative schemas. Results also

indicated that there were significant positive relationship between maladaptive parenting styles and negative schemas.

The first conclusion that can be drawn form the research investigating the relationship between parenting styles and schemas development is that individuals whose parents or caregivers are consistently responsive and nurturing are more likely to develop positive schemas about the self, others, and later relationships. The second conclusion is that individual's parents or caregivers whom are not responsive, neglectful or abusive and overprotective are more likely to develop negative schemas about themselves, others and future relationships. The results are promising, but more studies are needed to further investigate the relationship between parental styles and schemas/ EMSs.

EMSs and Depressive and Anxious Pathology

Cognitive theory proposes that maladaptive schemas, which are influenced by early experience, contribute to the development of both depressive and anxious symptoms (Beck, 1976; Young, 1990). Beck (1979) specifically proposed that individuals who develop schemas themed around the self as inadequate, helpless, defective, incompetent or a failure are more likely to develop depressive symptoms. Beck (1976) also proposed that individuals who develop schemas associated with fear of immediate physical or psychological harm or danger are more vulnerable to develop anxious symptoms. The development of the YSQ by Young (1990) has allowed researchers to more thoroughly and accurately empirically test cognitive theory and the content-specificity hypothesis as proposed by Beck.

One way previous research has attempted to empirically validate cognitive theory and the content-specificity hypothesis was by investigating the ability of specific EMSs

to predict anxious and depressive pathology. For example, Schmidt, Joiner, Young and Telch (1995) tested the content-specificity hypothesis and investigated the ability of EMSs to predict depressive and anxious symptoms in a college population. Results of an initial standard (simultaneous) multiple regression with all 18 EMSs as the predictor variable, revealed that EMSs accounted for a significant amount of the variance in both depressive and anxious symptoms. More specifically, results indicated that the Dependency and Defectiveness/Shame EMSs were the only significant individual predictors of depressive symptoms, whereas the Vulnerability to Harm and Incompetence/Inferiority EMSs were the only significant individual predictors of anxious symptoms.

In a similar study, Calvete, Estevez Lopez and Ruiz (2005) also investigated the content-specificity hypothesis and ability of EMSs to predict depressive and anxious symptoms by utilizing non-clinical sample. Results indicated that Defectiveness/Shame, Failure and Self-Sacrifice EMSs were the only significant individual predictors of depressive symptoms. Results also indicated that Abandonment, Failure and Subjugation EMS were the only significant individual predictors of anxious symptoms.

Stopa, Thorne, Waters and Preston (2002) further tested the content specificity hypothesis and the ability of EMSs to predict depressive and anxious symptoms by utilizing a clinical sample. Results indicated that the Unrelenting Standards was the only significant individual predictor of anxious symptoms. In addition, results indicated that Abandonment, Defectiveness, Subjugation and Self-Sacrifice EMSs were all significant individual predictors of depressive pathology.

In a similar study, Wellburn, Dagg, Pontefract and Jordan (2002) also tested the content specificity hypothesis and the ability of EMSs to predict depressive and anxious symptoms in a clinical sample. Results of an initial standard (simultaneous) multiple regression with all 15 EMSs as the predictor variables, revealed that EMSs accounted for a significant amount of the variance in both depressive and anxious symptoms. Results specifically indicated that Abandonment, Insufficient Self-Control and Dependency EMSs were significant individual predictors of depressive symptoms. In addition, the Abandonment, Vulnerability to Harm, Failure, Self-Sacrifice and Emotional Inhibition EMSs were significant individual predictors of anxious symptoms.

Also in a similar study, Glasser, Calhoun, Camphell, Bates and Petrocelli (2002) tested the content specificity hypothesis in relation to depressive and anxious in a clinical sample. Results of an initial standard (simultaneous) multiple regression with all 15 EMSs as the predictor variable, revealed that EMSs accounted for a significant amount of the variance in both depressive and anxious symptoms. Results specifically indicated that the Abandonment EMS was the only significant predictor of depressive symptoms. Abandonment, Vulnerability to Harm, Failure, Self-Sacrifice and Emotional Inhibition EMSs were all significant individual predictors of anxious pathology.

The first conclusion that can be drawn form the previous literature investigating specific EMSs ability to predict anxious and depressive symptoms is that the results have been inconsistent. The inconsistent results seem to be due to the lack of consistent methodology used by the previous researchers (e.g., different assessment tools that measure anxious and depressive symptoms and different procedures used to score the YSQ).

Despite the inconsistent results from the literature investigating specific EMSs ability to predict anxious and depressive symptoms there are a few patterns that seem to be emerging. One pattern is that there is consistent support that EMSs do account for a significant portion of the variances in both depressive and anxious symptoms. The next pattern that has emerged is the ability of the Vulnerability to Harm EMS to predict anxious symptoms. Vulnerability to harm was a significant predictor of anxious symptoms in three out of the five studies, which is consistent with the cognitive model of anxiety. The final pattern that has emerged is the ability of both Defectiveness and Abandonment EMSs to predict depressive symptoms. Results of four out of the five studies indicated that both Abandonment and Defectiveness EMSs were significant predictors of depressive symptoms.

Mediational model

Current psychodynamic theory and cognitive theory propose that schemas or internal working models may mediate the relationship between early experience and the development of pathology (Bowlby, 1988; Young, 1990). Young (1990) specifically proposes that EMSs mediate the relationship between negative parental characteristics/styles and different types of psychopathology. Previous research linking EMSs to the development of psychopathology and parenting styles to schema development has provided promising preliminary support for Young's mediational model. Despite the theoretical developments few studies have investigated EMSs mediating role between negative parenting styles and psychopathology like depressive and anxious symptoms.

In the recent years, the hypothesis that schemas mediate the relationship between negative early parental experience and psychopathology has begun to be investigated. However, previous studies have focused only on depressive symptoms. For example, Harris and Curtis (2002) investigated the mediating role EMSs play in relation to negative parental styles and depressive pathology in a non-clinical sample. The result indicated that four EMSs (Defectiveness/Shame, Insufficient Self-Control, Emotional Inhibition and Vulnerability to Harm) were at least partial mediators in the relationship between perception of negative parenting styles and depressive symptoms.

Shah and Waller (2000) also investigated the mediating role EMSs play in relationship to negative parental styles and depressive symptoms, but they utilized a clinical sample. Results indicated that Dependence/Incompetent, Emotional Inhibition, Failure and Vulnerability to Harm were partial mediators of negative parenting styles and depressive symptoms.

Based on the results of research investigating the mediational model, Vulnerability to Harm was the only EMS that met the criteria for a partial mediator between negative parental styles and depressive symptoms in both studies. Despite the limited studies on the subject, the results are promising because EMSs of Dependence/Incompetent, Failure and Defectiveness were all shown to be mediators between negative parental styles and depressive symptoms. Those three EMSs reflect that belief that one is fundamentally flawed, which is consistent with the cognitive model of depression (Beck, 1979).

Purpose

Despite the promising results of previous studies investigating the mediating role of EMS, and previous studies investigating the relationship between EMSs and pathology, there are a few limitations within the literature base. The aim of the study is to replicate some of

the previous research and to extend the previous research by addressing some of the weaknesses in the literature base.

The first limitation of the literature is the lack of studies investigating the mediating role EMSs play in relationship between negative parental styles and depressive and anxious symptoms. The current study will replicate previous studies investigating that mediational model in relation to depressive symptoms and extend the previous literature by testing the mediational model in relationship to both anxious and depressive symptoms. Based on cognitive theory (Beck, 1976) and schema theory (Young, 1990), it was hypothesized that EMSs would mediate the relationship between both anxious symptoms and depressive symptoms and negative parental styles. It was also specifically hypothesized that EMSs themed around viewing the self as fundamental flawed or defective (Defectiveness/Shame, Failure, Social Isolation and Dependent/Incompetence) would mediate the relationship between negative parenting styles and depressive symptoms. It was further hypothesized that the EMSs of Vulnerability to Harm and Insufficient Self-Control would mediate the relationship between negative parental styles and anxious symptoms.

The second limitation within the literature base is the inconsistent support for a content-specificity hypothesis in relationship to depressive and anxious symptoms. The results are believed to have been inconsistent because previous researchers have failed to take into account the overlap between depressive and anxious pathology. This current study attempted to correct the limitation and provide support for a content-specificity hypothesis by utilizing an assessment tool that measures symptoms both unique to depression and anxiety. The Mood and Anxiety Symptom Questionnaire, Short Form.

(MASQ-SF; Watson & Clark, 1991) measures general depressive and anxious symptoms as well as anxious arousal and anhedonic depression. Based on cognitive theory (Beck,1976), it was hypothesized that the schemas of Vulnerability to Harm and Insufficient Self-Control would be unique predictors of anxious arousal and the schemas of Defectiveness/shame, Failure, Social Isolation and abandonment and would be unique predictors of anhedonic depression.

A third limitation in the current literature base is the absence of studies investigating the relationship between EMSs and maladaptive coping styles. Young (1990) proposed that EMSs influence and guide how individuals cope with stressors in their environment. Thus, the presence of maladaptive coping styles contributes to the development and maintenance of psychopathology, dysfunctional behaviors, and interpersonal problems. Based on Young's (1999) theory it was specifically hypothesized that EMSs will be able to predict maladaptive coping styles. It was also hypothesized that specific EMS revolved around negative self image (Defectiveness/Shame, Dependence/Incompetence, Failure and Social Isolation) and fear of abuse/harm (Vulnerability to Harm and Mistrust/abuse) would be significant individual predictors of maladaptive coping styles.

A final limitation of the current literature base is the absence of studies exploring the relationship between EMSs and interpersonal functioning. Young (1990) proposed that EMSs not only influence the development of affective disturbances, but they influence the development of interpersonal problems. Both Young (1990) and previous cognitive theorists (Lenzenweger, 2005) proposed that maladaptive schemas contribute to the development of interpersonal problems which are predominate symptoms in personality disorders. Despite the lack of empirical support for the relationship between

EMSs and interpersonal problems, there is research that has linked EMSs with the development of Axis II pathology (Lee & Dunn, 1999). Young (1999) further proposed that specific EMSs are going to be more prevalent in specific types of interpersonal problems. Based on Young's model, it was hypothesized that EMSs would be significant predictors of interpersonal problems. It was specifically hypothesized that schemas relating to impaired autonomy (Dependence/Incompetence, Enmeshment, Failure and Vulnerability to Harm) and abondonment will be significant individual predictors of the interpersonal problems of Needy and Over-accommodating. The final hypothesis was that the EMSs of Subjugation and Self-Sacrifice will be significant individual predictors of Non-Assertiveness.

Chapter 2: Method

Participants

Participants were 224 undergraduate students at a small university located in the northeast. Individuals were recruited from Introduction to Psychology classes, and they received course credit for participating in the study. The mean age of the participants was 20.1 (range = 18-35), and class rank was distributed relatively evenly with the exception of seniors (38% freshman, 31% sophomores, 24% juniors and 7% seniors). Sixty-two percent of participants were female and 38% were males. Ethnicity of the sample was 74% Caucasian, 12% African American, 10% Hispanic, 3% Asian and 1% other. Participants also reported which primary caregivers were present in the home during the first 16 years of their lives, which was labeled household composition. Household composition of the sample was 73% two biological parents, 16% one biological parent, 8% one step parent and one biological parent, 1% two foster parents, and 1% two biological grandparents.

Procedure

Each participant reviewed and signed an informed consent prior to participating in the study. Each participant completed six self-report questionnaires and a brief demographic questionnaire. The questionnaires were distributed such that the brief demographic questionnaire always came first followed by the YSQ-SF, Brief COPE, MASQ, PBI (mother form), PBI (father form) and IIP-32. This order was used in an

attempt to minimize participant fatigue, as the longer questionnaires were placed earlier in the packet of questionnaires. The participants completed the questionnaires in groups of 10-30 people. The assessment battery took approximately 45 minutes for each participant to complete.

Materials

Young Schema Questionnaire- Short Form (YSQ-SF; Young & Brown, 1994). The YSQ-SF is a 75-item, self-report questionnaire that was designed to assess 15 unique early maladaptive schemas. The YSQ-SF is a modified version of the original 205-item Young Schema Questionnaire. The 75 items chosen for the YSQ-SF were items taken from the original YSQ to represent each of the 15 early maladaptive schemas proposed by Young. Each of the items on the YSQ-SF is rated on a six point Likert scale ranging from one ("completely untrue of me") to six ("describes me perfectly"). Total scores for each EMS scale are tallied by summing the converted numeric responses to the items on that particular EMS scale. A response ranging from four to six was converted to a one and responses ranging from one to three were converted to a zero. The higher the reported response to items on a scale indicated the greater the presence of that particular EMS. Brief definitions for each of the 15 EMSs proposed by Young (1994) are listed below.

Abandonment and instability is the perceived unavailability or unreliability of those available for emotional support, protection and connection. D*ependence /incompetence* is the belief that one can not handle their own problems in an effective way without the significant help from someone else. *Enmeshment* is defined as excessive closeness with significant others with the sacrifice of personal autonomy. *Emotional*

deprivation is the belief that ones basic emotional needs will not be met by others. *Mistrust/abuse* is the belief that others will intentionally abuse, neglect, mistreat and take advantage. *Social alienation* is the feeling that one is alienated or isolated from the rest of the world and that they do not belong any where. *Defectiveness/shame* describes the belief that one is flawed or defective in a fundamental way. *Subjugation of needs* is the excessive surrounding of ones own needs to please others. *Self-sacrifice* is the constant sacrifice or disregard of ones own feelings to meet the needs of others. *Emotional inhibition* involves the inhibition of ones own feelings, needs, thoughts and impulses because of the fear that they will be disapproved by others or lose control. *Unrelenting standards* is the belief that one must uphold the highest standards at all moments to avoid failure or criticism by others. *Entitlement* is the belief that one is superior to others and that they should have special rights or privileges. *Vulnerability to Harm* is the belief that an imminent catastrophe is bound to occur and that one is unable to prevent it. *Failure* is the belief that one will always fail, is inept, is stupid and can not compare to the norm. *Insufficient self-control* refers to troubles exercising self-control or tolerating disappointment or frustration.

Scales on the YSQ-SF have been shown to be internally consistent in both clinical and non-clinical samples. Schmidt, Young, Joiner and Telch (1995) investigated the internal consistency of the instrument in a large non-clinical sample. Alpha coefficients ranged from .83 (Dependency) to .96 (Emotional Deprivation), suggesting that all 15 scales on the YSQ-SF have strong internal consistency. Wellburn et al. (2002) also investigated the internal consistency of the YSQ, but they utilized a clinical sample.

Alpha coefficients ranged from .76 (Entitlement) to .93 (Failure), suggesting that scales on the YSQ-SF have moderately strong to strong internal consistency.

Scales on the YSQ-SF have been shown to possess adequate test-retest reliability. Schmidt, Young, Joiner and Telch (1995) investigated the test-retest reliability of the instrument in a large non-clinical sample. Test-retest coefficients ranged from .50 on the Dependency scale to .82 on the Emotional Deprivation scale (average r = .76), suggesting that the 9 of the 15 YSQ-SF scales have adequate test-retest reliability.

The YSQ-SF is also considered to be a valid measure of EMSs. Wellburn et al. (2002) investigated the construct validity of the YSQ-SF in a clinical sample. The results of a factor analysis revealed a strong correspondence between the theoretical subscale structure of all 15 EMSs and the resulting analysis. Seventy of the 75 items loaded exactly with the theoretical structure of the instrument, suggesting that all scales on the YSQ-SF have strong construct validity. Wellburn et al. (2002) also investigated the criterion validity of the instrument by examining the relationship between the 15 EMS and various measures of psychological distress. Results indicated EMSs were significant predictors of various types of psychological distress (e.g., anxiety and depression).

Glasser et al. (2002) further investigated the criterion validity of the instrument in a clinical sample by investigating the relationship between the 15 EMS and various measures of psychological symptoms. Results indicated EMSs were significant predictors of various types of psychological distress (e.g., anxiety and depression). The results suggest the scales on the YSQ-SF have strong criterion validity because specific EMSs have been shown to be able to predict high levels of affective disturbances.

Parental Bonding Scale (PBI; Parker & Brown, 1979). The PBI is a 25-item questionnaire used to measure adult's perceptions of their primary caregivers' parenting style during their first 16 years of life. The participants are asked to complete both a mother form and father form if applicable. The items on each form are identical but each respondent is asked to rate the mother on one form and the father on the other. Each of the items is rated on a four point Likert scale ranging from 1 ("very like my caregiver") to 4 ("very unlike my caregiver"). The PBI consists of two primary scales: the Care scale and the Overprotection scale. Each scale is computed by summing the responses to all the items that fall under that particular scale. Higher scores on each subscale represent a greater reported presence of that parenting style. "Seemed emotionally cold to me," is an example of an item on the Care scale.

Scales on the PBI have been shown to possess adequate test-retest reliability. Parker (1979) investigated that test-retest reliability of the PBI in both a clinical sample and a non-clinical sample. Test-retest coefficients ranged from .85 for the maternal Care scale and .70 for the paternal Overprotection scale in the non-clinical sample. Test-retest coefficients ranged from .72 for the Overprotection scale to .89 for the Caring scale in the non-clinical population. Parker (1980) further investigated the test-retest reliability of the PBI in a clinical sample. Test-retest coefficients ranged from .87 on the paternal Overprotection scale to .92 on the maternal Overprotection scale. Results further suggest that the scales on the PBI have strong test-retest reliability.

The scales on the PBI have shown to be a valid measure of parental styles. Parker (1981) investigated the validity of the PBI by comparing the scores on the PBI completed by both the subject and their parents. The results indicated that mothers and fathers

scored themselves significantly higher on their respective caring scale and significantly lower on their respective overprotection scale. Despite the differences, the results revealed significant correlations between the subject's scores and their parent's scores, r's ranging from .44 - .56. The results suggest that the scales on the PBI have adequate external validity.

Parker (1979) investigated the convergent validity of the PBI by investigating its relationship with similar scales that measure both overprotection and caring parenting styles. Correlational analysis indicated that there were significant correlations between maternal Overprotection scales on the PBI and the maternal overprotection scale on the EMBU (Egna Minneu av Bardndosnauppforstran, translated, Perception of Parenting Styles) (r = .71). Correlational analysis also indicated that there were significant correlations between the maternal Caring scales on the PBI and the caring scale on the EMBU (.79). Results suggest that the maternal scales on the PBI have moderately strong convergent validity.

Brief COPE (Carver, 1991). The Brief COPE is a 28-item, self-report questionnaire that measures various types of coping behaviors an individual engages in response to everyday stressful events. Items are rated on a four point Likert scale, ranging from one ("I usually do not do this") to four ("I usually do this a lot"). The COPE measures 14 different types of coping behavior, including positive reinterpretation and growth, behavioral disengagement, venting of emotions, using instrumental social support, active coping, denial, religious coping, behavioral disengagement, humor, use of emotional social support, acceptance, substance abuse, suppression of competing activities, and planning. Each coping scale is computed by summing the responses to all

the items that fall under that particular coping scale. Higher scores on a particular coping scale indicate a greater use of a particular coping style.

The Brief COPE has been shown to be a reliable measure of both adaptive and maladaptive coping behaviors. Carver (1997) investigated the internal consistency of each of the 14 coping style scales in a non-clinical sample. Alpha coefficients ranged from .50 for the venting scale to .90 for the substance abuse scale. Results also indicated that 10 out of the 15 scales had alpha coefficients greater then .65, suggesting that the majority of the scales have moderately strong reliability coefficients. Carver, Scheier, & Weintraub (1989) investigated the test-retest reliability of all 14 coping scales. Results indicated that 10 out of 14 coping scales had test-retest coefficients greater then .65, with r's ranging from .65 to .92. The results suggest that 10 out of the 14 scales have moderately strong to strong test-retest reliability.

Scales on the Brief COPE have also been shown to be valid measures of both adaptive and maladaptive coping styles. Carver, Scheier, & Weintraub (1989) investigated the construct validity of the instrument in a non-clinical sample. The results of a factor analysis revealed a strong correspondence between the theoretical subscale structure of all 14 coping styles and the results of a factor analysis. Over 90% of the items loaded consistently with the theoretical structure of the instrument, which suggest that scales on the Brief COPE have strong construct validity.

Carver (1997) also investigated the construct validity of the instrument in a non-clinical sample. The results of a factor analysis revealed a strong correspondence between the theoretical subscale structure of all 14 coping styles and the results of the factor analysis. All 28-items loaded consistently with the theoretical structure of the

instrument, further suggesting that the scales on the Brief Cope have strong construct validity.

Mood and Anxiety Symptom Questionnaire, Short Form. (MASQ-SF; Watson & Clark, 1991). The short form of the MASQ is a 65 item, self report questionnaire that measures both anxious and depressive symptoms over the past week. Items are rated on a five point Likert scale ranging from, one ("not at all") to five ("extremely"). The MASQ-consists of four scales measuring unique and common symptoms of anxiety and depression. The four different scales are called Anxious Arousal (AANX), General Distress: Anxious Symptoms (GANX), General Distress: Depressive Symptoms (GDEP), and Anhedonic Depression (ADEP). The Anxious Arousal scale was developed to measure symptoms unique to anxiety and the Anhedonic Depression scale was developed to measure symptoms unique to depression. Each scale is computed by summing the responses to all the items that fall under that particular scale. Higher scores on a particular symptom scale indicate a greater presence of that particular symptom.

The scales on the MASQ-SF are considered to be internally consistent. Keogh et al. (2000) investigated the internal consistency of the instrument in a non-clinical sample. Alpha Coefficients for each scale ranged from .95 for the GDEP scale to .88 for the AANX, providing strong support for the internal consistency of the scales on the MASQ-SF.

The scales on the MASQ-SF are also considered to be valid measures of anxious and depressive symptoms. Watson, Clark, Weber, Assenheimer, Strauss, & McCormick (1995) investigated both the discriminant and convergent validity of instrument in a clinical and non-clinical population. Correlations between ADEP and AANX ranged

from .25 to .49, which suggest that the scales on the MASQ-SF have adequate discriminant validity.

Watson, Clark, Weber, Assenheimer, Strauss, & McCormick (1995) further investigated the convergent validity of the instrument by comparing it to other valid measures of anxious and depressive symptoms. The scores on the BAI and GANX scale on the MASQ-SF were strongly correlated (r = .85), which suggests the strong convergent validity of the GANX scale. The scores on the on the BDI and GDEP scale on the MASQ-SF were strongly correlated (r = .70), suggesting that the GDEP scale has moderately strong convergent validity.

Inventory of Interpersonal Problems-32 (IIP-32; Horowitz & Wiggens, 2000). The IIP-32 is a 32-item, self report questionnaire that measures various types of interpersonal problems and related levels of distress. The IIP-32 is the short form of the original Inventory of Interpersonal Problems. The IIP-32 assesses the degree of difficulty that an individual has functioning within the following nine interpersonal domains: being to controlling or manipulative, being resentful and self-centered, having minimal feeling of affection for another, being socially avoidant, being non assertive, being gullible, being excessively selfless and generous, being intrusive and overall interpersonal distress. Items are rated on a five point Likert scale ranging from, one ("not at all") to four ("extremely"). Items ask participants to indicate how much the statement on each item applies to them. Each interpersonal scale is computed by summing the responses to all the items that fall under that particular scale. Higher scores on a particular scale indicate a greater presence of that particular interpersonal problem.

The scales on the IIP-32 have been shown to have adequate test-retest reliability. Horowitz & Wiggens (2000) investigated the test-retest reliability of the scales on the IIP-32 in a clinical sample. Test-retest coefficients ranged from .61 (Intrusive scale) to .83 (Socially Inhibited), suggesting that the scales on the IIP-32 have moderately strong to strong test-retest reliability.

The scales on the IIP-32 have been shown to have adequate criterion validity. Horowitz & Wiggens (2000) investigated the criterion validity of the scales on the IIP-32 by comparing it with different measures of psychological symptoms. Correlations between the IIP-32 scales and BDI-II and BAI ranged from .33 to .44. Results suggest that the scales on the IIP-32 have adequate convergent validity because as one might anticipate individuals who experience both anxious and depressive symptoms will also experience interpersonal problems.

Chapter 3: Results

The first goal of the study was to test the hypothesis that EMSs mediate the relationship between maladaptive parenting styles and anxious and depressive symptoms. The second goal was to test a content-specificity hypothesis in relationship to both anxious and depressive symptoms. The third goal of the study was to test the hypothesis that specific EMS can predict maladaptive coping styles. The final goal was to test the hypothesis that specific EMSs can predict specific interpersonal problems.

Mediational Model: Parenting Styles, EMSs and Anxious and Depressive Symptoms

The first goal of the study was to test the hypothesis that EMSs mediate the relationship between maladaptive parenting styles and anxious and depressive symptoms. To explore this goal, a series of analyses were employed. First, a series of correlational analysis were conducted to explore the initial relationship between parenting styles, EMSs and all four MASQ-SF scales. Next, four initial standard (simultaneous) multiple regression were conducted select the EMSs that would be used to test the role of EMSs as mediators of the relationship between parenting and pathology. EMSs that were significant individual predictors of each symptom scale were included in the subsequent analyses examining the mediational model.

Following these initial analyses, the mediational model was explored in the manner suggested by Baron and Kenny (1986). The criteria for demonstrating the mediating effect of EMSs are as follows: (1) variability in parenting styles should

account for significant variability in EMSs; (2) variability in EMSs should account for a significant portion of the variability in the symptom scales: (3) when the relationship between the EMS and symptom scale is controlled for, the previously significant relationship between the symptom and the parenting styles should no longer be significant. A more conservative p value of .01 was used to test the mediational models, in order minimize type one error. The mediational model was first tested in relationship to maternal parenting styles and all four symptom scales and then tested in relationship to paternal parenting and all four symptom scales.

Correlations between EMSs and depressive and anxious symptoms

Means, standard deviations and coefficients alphas for all 4 MASQ-SF scales and all15 YSQ-SF scales and correlations between all 15 YSQ-SF scales and all 4 MASQ-SF are displayed in Table 1. Fourteen of the 15 correlations between GDEP and the EMSs were statistically significant, with the significant coefficients ranging from small to moderate in size (r*'s* = .20 to .45). All of the significant correlations were in the positive direction with the exception of the correlation between general depression and Unrelenting Standards (r = -.36). Thirteen of the 15 correlation coefficients between GANX and EMSs were statistically significant, with the significant coefficients ranging from small to moderate in size (r's = .13 to .45). All of the correlations were in the positive direction. Thirteen of the 15 correlations between AANX and the EMSs were statistically significant, with the significant coefficients ranging from small to moderate in size (r'*s* = .21 to .44). All of the significant correlations were in the positive direction. Thirteen of the 15 correlations between ADEP and the EMSs were statistically significant, with the significant coefficients ranging from small to moderate in size (r's =

.13 to .40). All of the significant correlations were in the positive direction with the exception of the correlation between ADEP and unrelenting standards (r = -.20).

Correlations between parenting styles and EMSs

Correlations between parenting styles and EMSs, and means, standard deviations and coefficient alphas for parenting style scores are displayed in Table 2. Twenty-two of the 30 correlation coefficients between EMSs and maternal parenting styles were statistically significant, with the significant coefficients ranging from small to moderate in size (r's = .14 to .36). All correlations between the maternal Overprotection scale and EMSs were in the positive direction, and all correlations between the maternal Caring scale and EMSs were in the negative direction. Eleven of the 30 correlation coefficients between EMSs and paternal parenting styles were statistically significant, with the significant coefficients falling in the small range in size (r's = .14 to .22). All correlations between the paternal Overprotection scale and EMSs were in the positive direction, and all correlations between the paternal Caring scale and EMSs were in the negative direction. Maternal Overprotection was most consistently associated with EMSs, with 12 of the possible 15 correlations reaching statistical significance (*r's* = .14 to .33).

Correlations between parenting styles and depressive and anxious symptoms

Correlations between parental styles and all 4 MASQ-SF scales are displayed in Table 3. Seven out of 8 correlation coefficients between maternal parenting styles and depressive and anxious symptoms were statistically significant, with the significant coefficients falling in the small range (r's = .17-.29). All correlations between the maternal Overprotection scale and all 4 MASQ-SF scales were in the positive direction

and all of the correlations between the maternal Caring scale and depressive and anxious symptoms were in the negative direction. Only 5 out of 8 correlation coefficients between paternal parenting styles and all 4 MASQ-SF scales were statistically significant, with the significant coefficients falling in the small range (r's = .16-.21). All correlations between paternal Overprotection scale and all 4 MASQ-SF scales were in the positive direction, and all of the correlations between the paternal Caring scale and all 4 MASQ-SF scales were in the negative direction.

Regression analysis

Four initial standard (simultaneous) multiple regression were conducted to select the EMSs that would be used to test the role of EMSs as mediators of the relationship between parenting and pathology. EMSs that were significant individual predictors of each symptom scale were included in the subsequent analyses examining the mediational model. For each analysis, the 15 EMSs were entered as the predictor variables and GDEP, ADEP, GANX and AANX served as the criterion variables, respectively. Results of the four regression models are displayed in Table 4. The EMSs predicted a significant percentage of the variance in each criterion variable, accounting for 41% of the variance in GDEP ($F[15, 221] = 9.66, p = .001$), 30% of the variance in ADEP ($F[15, 221] = 5.94$, $p = .000$), 34% of the variance in GANX ($F[15, 221] = 7.21, p = .000$), and 35% of the variance in AANX ($F[15, 221] = 7.53, p = .000$). With regard to the specific EMSs, Social Isolation, Vulnerability to Harm, Failure, and Entitlement were significant individual predictors of GDEP; Insufficient Self-Control/Self-Discipline, Social isolation, Vulnerability to Harm, Unrelenting Standards and Emotional Deprivation were significant individual predictors of ADEP; Vulnerability to Harm,

Dependence/Incompetence and Entitlement were significant individual predictor of GANX; and Vulnerability to Harm, Dependence/Incompetence, Enmeshment and Entitlement were significant individual predictor of AANX.

Mediational model: maternal parenting styles, selected EMSs and depressive and anxious symptoms

To test whether, Failure, Social Isolation, Vulnerability to Harm and Entitlement mediate the relationship between maternal parental styles and general depressive pathology, results were analyzed in the manner used by Baron and Kenny (1986). Results of the mediational model in relationship to GDEP are displayed in Table 5. First, a forced entry regression analysis was used to verify that maternal parental styles were significant predictors of GDEP. Regression analysis revealed that PBI-C and PBI-O accounted for 51% variance in the GDEP ($F[2, 223] = 5.94, p = .003$). Next, testing for the possibility of the Social Isolation EMS serving as the mediator, the maternal parental style scores were used to predict the Social Isolation score. The Social Isolation score was regressed into the maternal PBI-C and PBI-O scores. Maternal parenting styles accounted for 11.0% of the variance in the Social Isolation score ($F[2,224] =13.70, p =.000$). Next, the Social Isolation score was then used to predict the GDEP score, which accounted for 19.9% of the variance in GDEP ($F[1,222] = 55.20, p = .000$). When controlling for the Social Isolation score, maternal parental styles accounted for 1.0 % of the variance in the GDEP score ($F[2,220] = 1.47, p = .237$). Due to there no longer being a significant relationship between maternal parenting styles and GDEP, the criteria for Social Isolation being a mediator was met.

An identical procedure was used to test for the Failure, Vulnerability to Harm and Entitlement EMSs as mediators. The PBI-C and PBI-O scores were regressed into the Failure score. Maternal parenting styles only accounted for 1.4% of the variance in the Failure score and it was not a significant predicator of the EMS (F[2,224] = 1.84, p = .16). Due to parenting styles not being a significant predictor of the Failure score, the criteria for Failure as a mediator was not met. The maternal PBI-C and PBI-O scores were regressed into the Vulnerability to Harm score. Maternal parenting styles accounted for 6.0% of the variance in the Vulnerability to Harm score (F[2.224] =6.98, p =.001). The Vulnerability to Harm was then used to predict the GDEP score, which accounted for 18.4% of the variance in GDEP (F[1,222] = 50.17, p = .000). When controlling for the Vulnerability to Harm EMS, maternal parenting styles accounted for 1.8 % of the variance in the GDEP score (F[2,220] = 2.49, p = .085). Due the relationship between maternal parenting styles and GDEP no longer being significant, the criteria for Vulnerability to Harm being a mediator between negative maternal parental styles and GDEP was met.

The PBI-C and PBI-O scores were regressed into the Entitlement score. Maternal parenting styles only accounted for 3.3% of the variance in the Entitlement score (F[2,224] = 3.79, p = .024). Due to maternal parenting styles not being a significant individual predictor of the Entitlement score, the EMS is not a mediator between negative maternal parental styles and GDEP.

Next, the Insufficient Self-Control/Self-Discipline, Social isolation, Vulnerability to Harm, Unrelenting Standards and Emotional Deprivation EMSs were tested as mediators between maternal parental styles and ADEP. Results of the mediational

models in relationship to ADEP are displayed in Table 6. Initial, regression analysis revealed that maternal PBI-C and PBI-O accounted for 10.2 % variance in the ADEP (F[2, 224] = 12.63, p = .002). Next, the maternal PBI-C and PBI-O scores were regressed into the Insufficient Self-Control score. Maternal parenting styles accounted for 8.3% of the variance in the Insufficient Self-control score (F [2.224] =10.09, p =.000). The Insufficient Self-Control score was then used to predict the ADEP score, which accounted for 8.3% of the variance in GDEP (F[1,223] = 20.40, p = .000). When controlling for the Insufficient Self-Control score, maternal parenting styles accounted for 6.2 % of the variance in the ADEP score, (F[2.221] = 8.01, p = .000). Due to maternal parenting styles still being a significant predictor of GDEP, the criterion for the EMS being a mediator was not met.

The maternal PBI-C and PBI-O scores were regressed into the Social Isolation. Maternal parenting styles accounted for 11.0% of the variance in the Social Isolation score (F [2,224] =13.70, p =.000). The Social Isolation score was then used to predict the ADEP score, which accounted for 16.2% of the variance in ADEP (F[1,224] = 43.19, p = .000). When controlling for the Social Isolation score, maternal parental styles accounted for 3.9 % of the variance in the ADEP score (F [2,221] = 5.38, p = .005). Due to the relationship between maternal parenting styles and ADEP still being significant, the criterion for the EMS as a mediator was not met. The PBI-C and PBI-O scores were regressed into the Vulnerability to Harm. Maternal parenting styles accounted for 6.0% of the variance in the Vulnerability to Harm score (F[2,224] =6.98, p =.001). The Vulnerability to Harm score was then used to predict the ADEP score, which accounted for 9.3% of the variance in ADEP (F[1,223) = 22.92, p = .000). When controlling for the

Vulnerability to Harm score, maternal parental styles accounted for 64 % of the variance in the ADEP score (F[2,221] = 8.4, p = .000). Due to maternal parenting styles still being a significant predictor, Vulnerability to Harm was not a mediator between maternal parental styles and ADEP.

The maternal PBI-C and PBI-O scores were regressed into the Unrelenting Standard score. Maternal parenting styles accounted only accounted for 0.9% of the variance in the Unrelenting Standards score (F[2,224] =1.05, p = .351). Due to maternal parenting styles not being significant predicator of the EMS, the criteria for the EMS being a mediator was not met and the schema is not a mediator. The maternal PBI-C and PBI-O scores were regressed into the Emotional Deprivation score. Maternal parenting styles accounted for 13.1% of the variance in the Emotional Deprivation score (F[2, 224] = 16.71, p =.000). The Emotional Deprivation schema score was then used to predict the ADEP score, which accounted for 5.6% of the variance in ADEP (F[1,.223) = 13.97, p = .000). When controlling for the Emotional Deprivation schema score, the perception of maternal parental styles accounted for 6.8 % of the variance in the ADEP score (F [2,221] = 8.62, p = .000). Due to maternal parenting styles still being a significant predictor of ADEP, the schema is not a mediator.

Next, the EMSs of Vulnerability to Harm, Dependence/Incompetence and Entitlement were tested as mediators between maternal parenting styles and GANX. Results of the mediational models in relationship to GANX are displayed in Table 7. First, a forced entry regression analysis was used to verify that maternal parenting styles were significant predictors of GANX. Regression analysis revealed that maternal PBI-C and PBI-O scores accounted for 4.6 % variance in the GANX (F[2, 224] = 5.29, p =

.006). Next, testing for the possibility of the Vulnerability to Harm EMS serving as a mediator, the maternal parenting styles scores were used to predict the Vulnerability to Harm score. Regression analysis revealed that the maternal PBI-O and PBI-C scores accounted for 6.0% of the variance in the Vulnerability to Harm score (F[2,224] =6.98, p =.001). Next, the Vulnerability to Harm score was used to predict GANX. Regression analysis revealed that the Vulnerability to Harm score accounted for 20.4 % of variance in the GANX scores (F[1.223] = 57.08, p = .000). When controlling for the Vulnerability to Harm score, maternal parenting styles accounted for 2.4% of the variability in GANX (F[2.221] = 3.43, p = .034). Due to parenting styles no longer being a significant predictor of GANX, the schemas of Vulnerability to Harm is a mediator between maternal parental styles and GANX.

The maternal PBI-C and PBI-O scores were regressed into the Dependence/Incompetence score. Maternal parenting styles accounted for only 1.4 % of the variance in the Dependence/Incompetence score (F[2, 222] = 1.57, p =.211). Due to maternal parenting a style not being a significant predictor the criteria for the schema to be a mediator was not met. The Entitlement schema score was regressed into the PBI-C and PBI-O scores. Regression analysis revealed that the maternal parenting styles only accounted for only 3.3% of the variance in the schemas score (F [2,224] =3.70, p = .024). Due to maternal parenting styles not being a significant individual predictor of the schemas score, the schema do not meet the criteria to be a mediator.

The EMSs of Vulnerability to Harm, Dependence/Incompetence, Enmeshment and Entitlement were also tested as mediators between negative maternal parenting styles and AANX. Results of the mediational models in relationship to AANX are also

displayed in Table 7. Maternal PBI-C and PBI-O scores accounted for 5.4% of the variance in AANX (F[2,224] =6.32, p = .002). The PBI-C and PBI-O scores were regressed into the Vulnerability to Harm score. Maternal parenting styles accounted for 6.0% of the variance in the Vulnerability to harm score, (F[2.224] =6.98, p =.001). The Vulnerability to Harm score was then used to predict the AANX score, which accounted for 19.2% of the variance in AANX (F[1,.223) = 53.08, p = .000). When controlling for the Vulnerability to Harm score, maternal parenting styles accounted for 1.8 % of the variance in the AANX score (F[2,221] = 3.76, p = .025). Due to parenting styles no longer being a significant predictor of AANX, the criteria for Vulnerability being a mediator of negative maternal parental styles and AANX was met. The maternal PBI-C and PBI-O scores were regressed into the Dependence/Incompetence score. Maternal parenting styles accounted for only 1.4 % of the variance in the Dependence/Incompetence score (F[2, 222] = 1.57, p =.211). Due to maternal parenting styles not being a significant predictor of Dependence/Incompetence the criteria for the EMS being a mediator were not met.

The PBI-C and PBI-O scores were regressed into the Entitlement score. Maternal parenting styles accounted for 3.3% of the variance in the Entitlement score (F [2,224] = 3.79, p = .024. Maternal parenting styles not being a significant individual predictor, the EMS does not meet the criteria to be a mediator. The Enmeshment score was regressed into the maternal. The maternal PBI-C and PBI-O scores were regressed into the Enmeshment score. Maternal parenting styles accounted for 5.7% of the variance in the Enmeshment score (F[2,224] = 6.77, p = .001). The Enmeshment score was then used to predict the AANX score, which accounted for 7.8% of the variance in

AANX (F[1,223) = .18.9, p = .000). When controlling for the Enmeshment score, the maternal parenting styles accounted for 2.9 % of the variance in the AANX score (F [2,221] = 2.9, p = .028). Due to parenting styles no longer being a significant predictor of AANX, the criteria for Enmeshment being a mediator of negative maternal parental styles and AANX was met.

Mediational model: paternal parenting styles, selected EMSs and depressive and anxious symptoms

Identical procedures were used to test for Failure, Social Isolation, Vulnerability to Harm and Entitlement EMSs as mediators between paternal parenting styles and GDEP. However, initial regression analysis revealed that paternal parental style scores only accounted for 2.4% of variance in GDEP scores, (F[2,254], p = .081. Due the paternal parenting styles not being a significant predictor of GDEP, there was no relationship to be mediated.

Next, the schemas Insufficient Self-Control, Social isolation, Vulnerability to Harm, Unrelenting Standards and Emotional Deprivation were tested as mediators between paternal parental styles and ADEP. Results of the mediational models in relationship to ADEP are displayed in Table 8. Regression analysis revealed that paternal PBI-C and PBI-O scores accounted for 5.8 % variance in the ADEP (F[2, 209] = 6.38, p = .002). The Insufficient Self-Control score was regressed into the paternal PBI-C and PBI-O scores. Paternal parenting style accounted for 4.4% of the variance in the Insufficient self-control score (F[2, 224] = 4.81, p =.009). The Insufficient Self-Control score was then used to predict the ADEP score, which accounted for 7.3% of the variance in ADEP (F[1,.208) = 16.46, p = .000. When controlling for the Insufficient Self-Control

score, paternal parenting styles accounted for 4.1 % of the variance in the ADEP score (F [2,206] = 4.79, p = .009). Due to there still being a significant relationship, the EMS was not a mediator. The paternal PBI-C and PBI-O scores were regressed into the Social Isolation score. Paternal parenting styles accounted for 3.8% of the variance in the Social Isolation score (F[2, 209] = 4.09, p =.019). Due to paternal parenting styles not being a significant predictor of the Social Isolation score, the EMS does not mediate the relationship between paternal parenting styles and ADEP.

The paternal PBI-C and PBI-O scores were regressed into the Vulnerability to Harm. Perception of paternal parenting only accounted for 1.1 % of the variance in the Vulnerability to Harm score (F[2, 209] =1.38, p =.254. Paternal parenting styles were not a significant predictor of the Vulnerability to Harm score and therefore the EMS was not meet the criteria for a mediator. The paternal PBI-C and PBI-O scores were regressed into the Unrelenting Standards score. Maternal parenting styles accounted only accounted for 1.1% of the variance in the Unrelenting Standards a score (F[2,209] =1.47, p = .231. Paternal parenting styles were not a significant predictor of the EMS, therefore the criteria for the schema to be a mediator was not met. The paternal PBI-C and PBI-O scores were regressed into the Emotional Deprivation score. Paternal parenting styles accounted for 3.9% of the variance in the Emotional Inhibition score (F[2, 209] = 4.21, p =.016. Due to paternal parenting styles not being a significant predictor of the EMS score, the EMS is not a mediator between negative paternal parenting styles and ADEP.

The EMSs of Vulnerability to Harm, Dependence/Incompetence and Entitlement were tested as mediators between negative paternal parenting styles and GANX. First, a forced entry regression analysis was used to verify that paternal parental styles were

significant predictors of GANX. Regression analysis revealed that paternal PBI-C and PBI-O accounted for 3.5. % variance in the GANX (F[2, 224] = 3.7, p = .025). Due to parenting styles not being a significant predictor of GANX there was no relationship to be mediated.

The EMSs of Vulnerability to Harm, Dependence/Incompetence, Enmeshment and Entitlement were tested as mediators between negative paternal parenting styles and AANX. First, a forced entry regression analysis was used to verify that maternal parental styles were significant predictors of AANX. Regression analysis revealed that paternal PBI-C and PBI-O accounted for 3.5. % variance in the AANX (F[2, 224] = 3.7, p = .025). Due to paternal parenting styles not being a significant predictor of GANX there is no relationship to be mediated.

Content Specificity Hypothesis

Regression analysis

The second goal was to test a content-specificity hypothesis in relationship to both anxious and depressive symptoms. In order test the content-specificity hypothesis and the ability of EMSs to predict anxious and depressive symptoms four initial standard (simultaneous) multiple regression analyses were conducted. Each symptom scale served as the criterion variable and the EMSs served as the predictor variables. Results of the four regression models are displayed in Table 4. The EMSs predicted a significant percentage of the variance in each criterion variable, accounting for 41% of the variance in GDEP (F[15, 221] = 9.66, p = .001), 30% of the variance in ADEP (F[15, 221] = 5.94, p = .000), 34% of the variance in GANX (F[15, 221] = 7.21, p = .000), and 35% of the variance in AANX (F[15, 221] = 7.53, p = .000). With regard to the specific EMSs,

Social Isolation, Vulnerability to Harm, Failure, and Entitlement were significant individual predictors of GDEP; Insufficient Self-Control/Self-Discipline, Social isolation, Vulnerability to Harm, Unrelenting Standards and Emotional Deprivation were significant individual predictors of ADEP; Vulnerability to Harm, Dependence/Incompetence and Entitlement were significant individual predictor of GANX; and Vulnerability to Harm, Dependence/Incompetence, Enmeshment and Entitlement were significant individual predictor of AANX.

EMSs and Coping Styles

The third goal of the study was to test the hypothesis that specific EMS can predict maladaptive coping styles. To explore this goal, a series of analyses were employed. First, a series of correlational analysis were conducted to explore the initial relationship between EMSs and coping styles. Next, to test the ability of EMSs to predict maladaptive coping styles, 6 multiple (simultaneous) regression analyses were conducted.

Correlations between EMSs and coping styles

Means and standard deviations for coping style scores, and initial correlations between coping styles and EMS are displayed in Table 9. Also displayed in Table 9 are coefficient alphas the 6 maladaptive coping styles. Eighty-two of the 210 correlation coefficients between coping styles and EMSs were statistically significant, with the significant coefficients ranging from small to moderate in size (r *'s* = .20 to .45). The majority of correlations were in the positive direction with the exception of some of the correlations between religion, active coping and use of emotional support and EMSs. The majority of the significant correlations were between EMSs and maladaptive coping styles (e.g., Self-Blame Denial, Behavioral Disengagement, and Substance Abuse). Self-

Blame was most consistently associated with EMSs, with 13 of the possible 15 correlations reaching statistical significance (r's = .15 to .39).

Regression analysis

To explore the ability of EMSs to predict maladaptive coping styles, 6 multiple (simultaneous) regression analyses were conducted. For each analysis, all 15 EMSs served as the predictor variables and each of the maladaptive coping styles served as a criterion variable, respectively. Results of all six regression models are displayed in Table 10. The EMSs predicted a significant percentage of the variance in each criterion variable, accounting for 15% of the variance in Venting (F[15, 222] = 2.39, p = .003), 19% of the variance in Substance Abuse (F[15, 222] = 3.16, p = .000), 34% of the variance in Self-Blame (F[15, 222] = 7.05, p = .000), 20% of the variance in Self-Distraction (F[15, 222] = 3.45, p = .000), 27% of the variance in Denial (F[15, 222] = 4.96, p = .000) and 21% of the variance in Behavioral Disengagement (F[15, 222] = 3.57, p = .000). With regard to the specific EMSs, Enmeshment was a significant individual predictor of Venting; Emotional Inhibition, Subjugation and Defectiveness/Shame EMSs were significant individual predictors of Substance Abuse; Subjugation, Self-Sacrifice and Dependence/Incompetence were significant individual predictor of Self-Blame; Unrelenting Standards was an individual significant predictor of Self-Distraction; Enmeshment, Defectiveness/Shame and Mistrust/Abuse were significant individual predictors of Denial , and Mistrust/Abuse and Self-Sacrifice were significant individual predictors of Behavioral Disengagement.

EMSs and Interpersonal Problems

The final goal was to test the hypothesis that specific EMSs can predict specific interpersonal problems. To explore this goal, a series of analyses were employed. First, a series of correlational analysis were conducted to explore the initial relationship between EMSs and interpersonal problems. Next, to test the ability of EMSs to predict maladaptive coping styles, 6 multiple (simultaneous) regression analyses were conducted.

Correlations between EMSs and interpersonal problems

Means and standard deviations of interpersonal problems as measured by the IIP-32 and initial correlations between EMSs and interpersonal problems are displayed in Table 11. Seventy-one out of the 120 correlation coefficients were statistically significant, with the significant coefficients ranging from small to large in size (r*'s* = .14 to .53). All of the significant correlations were in the positive direction, with the exception of the correlation between Self Sacrificing and Cold-Distant (r = -.14). Over-Accommodating and Non-Assertive were most consistently associated with EMSs, with 12 of the possible 15 correlations reaching statistical significance (r*'s* = .15 to .54).

Regression analysis

To explore the ability of EMSs to predict interpersonal problems, 8 multiple (simultaneous) regression analyses were conducted. For each analysis, all 15 EMSs served as the predictor variables and each of the interpersonal problems served as a criterion variable, respectively. Results of all 8 regression models are displayed in Table 12. The EMSs predicted a significant percentage of the variance in each criterion variable, accounting for 26% of the variance in Cold/Distant ($F[15, 217] = 6.3, p = .000$), 32% of the variance in Non-Assertive ($F[15, 218] = 6.3, p = .000$), 38% of the variance in Over-Accommodating ($F[15, 218] = 8.1, p = .000$), 28% of the variance in Needy

(F[15, 218] = 5.5, p = .000), 41 of the variance in Self-Sacrificing (F[15, 218] = 9,5, p = .000), 24% of the variance in Domineering (F[15, 218] = 4.3, p = .000), 17% of the variance in Vindictive (F[15, 218] = 2.9, p = .000) and 28% of the variance in Social Isolation (F[15,218] = 5.3, p = .000).

With regard to the specific EMSs, Emotional Deprivation, Mistrust/Abuse, Self-Sacrifice and Emotional Inhibition were significant individual predictors of Cold/Distant; Vulnerability to Harm, Subjugation and Failure were significant individual predictors of Non-Assertive; Vulnerability to Harm, Subjugation and Self-Sacrifice were significant individual predictor of Over-Accommodating; Vulnerability to Harm, Dependence/Incompetence, Abandonment and Enmeshment were significant individual predictor of Needy; Self-Sacrifice and Failure were significant individual predictors of Self-Sacrificing; Entitlement, Subjugation, Emotional Deprivation and Enmeshment were significant individual predictors of Domineering; Emotional Inhibition and Self-Sacrificing were significant individual predictors of Vindictive and Self-Sacrificing and Social Isolation were significant individual predictors of Social Isolation.

Chapter 4: Discussion

One of the primary goals of the study was to test the hypothesis that EMSs mediate the relationship between maladaptive parenting styles and depressive and anxious symptoms, and the relationship between maladaptive parenting styles and anxious symptoms. To accomplish this goal, both anxious and depressive symptoms scores were tested in within a mediational model. It was hypothesized that Defectiveness/Shame, Failure, Social Isolation, Dependence/Incompetence and Abandonment EMSs would mediate the relationship between maladaptive parental styles and depressive symptoms. It was also hypothesized that Vulnerability to Harm and Insufficient Self-Control EMSs would mediate the relationship between negative parenting styles and anxious pathology.

Results of the current study investigating the mediational model in relation to depressive symptoms indicated that Social Isolation and Vulnerability to Harm EMSs did mediate the relationship between maladaptive maternal parenting styles and general depressive symptoms. Social Isolation and Vulnerability to Harm EMSs also mediated the relationship between negative maternal parenting styles and anhedonic depression. The general hypothesis that EMSs mediate the relationship between negative parenting styles and depressive symptoms was supported, but the specific hypothesis that five specific EMS (Defectiveness/Shame, Failure, Social Isolation,

Dependence/Incompetence and Abandonment) would mediate the relationship between maladaptive parenting styles and depressive symptoms were only partially supported.

Consistent with previous research, the current results suggest that the relationship between early maladaptive parenting styles and depressive pathology is not absolute. Early parental styles influence the development of EMSs, which in turn increase the vulnerability to develop depressive symptoms. Also consistent with previous research, Vulnerability to Harm EMS plays an important mediational role between maladaptive parenting styles and depressive symptoms. The results are consistent with Young's (1990) model.

However, the findings of the current study and the findings of the previous research do diverge. Previous research has indicated that the EMSs of Defectiveness/Shame, Insufficient Self-Control, and Dependence/Incompetence were also mediators in the relationship between parenting styles and depressive pathology (Harris & Curtis, 2002; Shah & Waller, 2000), but the current findings indicated that those EMSs did not meet the criteria for mediators. The current study did indicate that the Social Isolation EMS played an important mediational role between maladaptive parenting styles and depressive symptoms. The findings are also consistent with cognitive theory (Beck, 1979). Specifically, the Social Isolation EMS reflects a negativistic view that one is isolated from the rest of the world, different from other people, and/or not part of any group or community. Despite some of the inconsistencies between the results of the current and previous studies, the research is promising. More studies are needed that utilize similar instruments and similar scoring procedures for the YSQ, but more diverse samples.

Results of the current study investigating the mediating role EMSs in relationship to negative parenting styles and anxious pathology indicated that Vulnerability to Harm

mediated the relationship between negative maternal parenting styles and general anxious pathology. Vulnerability to Harm and Enmeshment EMSs mediated the relationship between negative maternal parental styles and anxious arousal. The general hypothesis that EMSs mediate the relationship between maladaptive parenting styles and anxious symptoms was supported and the specific hypothesis that Vulnerability to Harm would mediate the relationship between maladaptive parenting styles and anxious symptoms was also supported.

No studies to this date have tested the mediational model in relationship to maladaptive parenting styles and anxious pathology. Results of the current study suggest that the relationship between early maladaptive parenting styles and anxious pathology is not absolute. Early maladaptive parental styles influence the development of EMSs, which in turn increase the vulnerability to develop anxious symptoms. Also the Vulnerability to Harm EMS being a mediator of maladaptive parenting styles and anxious symptoms reflects cognitive theory. The EMS of Vulnerability to Harm encompasses the belief and fear that imminent catastrophe (medical problems and external distress) will strike at any time and that one will be unable to prevent it, is central to individuals who experience anxious symptoms.

The Enmeshment EMS being a mediator does not explicitly conform to cognitive theory, but it does have some interesting implications. The schema involves the belief that the enmeshed individual cannot survive or be happy without the constant support of the other, usually a parent. This belief draws some parallels to the cognitive theory in the sense that individuals who hold the maladaptive belief that one can not function adequately without constant support will increase their vulnerability to anxious

symptoms. Overall, the results are promising, but further studies are needed that support the mediating role of EMSs in relation to maladaptive parenting styles and anxious pathology.

The more general implications of the findings in regards to the mediating effects of EMSs in relationship to negative parenting styles and anxious and depressive pathology is that the EMS of Vulnerability to Harm is an equally important factor in the development of both depressive and anxious symptoms. The EMS met the criteria for a full mediator in three out of the four psychological outcome scales. More specifically, individuals who viewed their mothers as low in caring were more likely to believe that danger or harm is constantly looming, which leads to both anxious and depressive pathology. The findings are consistent with Young's (1990) model of psychopathology.

The second general implication of the results is that maternal parental styles appear to play a more significant role in the development of EMSs then paternal parental styles. The criterion for a EMSs being a mediator between paternal parenting styles and pathology was not met. The clinical implications of the results of the mediational models suggest that clinicians should be concerned with how early maternal experience effects schemas development, but the focus of the clinical process should be on replacing the EMSs with more adaptive schemas because the relationship between EMSs and pathology is stronger.

The second goal of the study was to further investigate the relationship between EMSs and anxious and depressive symptoms and to provide support for the cognitive content specificity hypothesis. To accomplish the goal, an assessment tool that measures symptoms unique to both depression and anxiety was utilized. It was hypothesized that

Vulnerability to Harm EMS would be unique predictor anxious arousal symptoms. It was also hypothesized that Failure, Defectiveness/Shame, Social Isolation and Abandonment EMSs would be unique predictors of anhedonic depression.

Results of the study investigating the ability of EMSs to predict both general depressive symptoms and anhedonic depression indicated that Social Isolation, Failure, Vulnerability to Harm and Entitlement EMSs predicted the presence of general depressive symptoms and Emotional Deprivation, Insufficient Self-Control, Vulnerability to Harm, Social Isolation and Unrelenting Standards EMSs predicted the presence of anhedonic depression.

Results investigating the ability of EMSs to predict both general anxious symptoms and anxious arousal indicated that Vulnerability to Harm, Dependence/ Incompetence and Entitlement predicted the presence of general anxious symptoms and Vulnerability to Harm, Dependence/Incompetence, Entitlement and Enmeshment predicted anxious arousal. It was hypothesized that specific EMSs would be unique predictors of both anxious arousal and anhedonic depression were not met. Only Social Isolation was a unique predictor of anhedonic depression.

Consistent with previous research, the current results suggest that the Insufficient Self-Control EMS is an important factor in the development of depressive symptoms and Vulnerability to Harm EMS is an important factor that contributes to the development of anxious pathology. The findings are consistent with cognitive theory. However, the remainder of the results between the current study and the previous research diverge. The divergence only adds to the lack support for a specificity hypothesis and the inconsistencies in the research investigating the role specific EMSs play in the

development of depressive and anxious pathology. The current study failed to indicate that Abandonment and Defectiveness/Shame EMSs can predict depressive symptoms. Additionally, the current study did indicate that Failure, Social Isolation, and Emotional Deprivation EMSs were unique predictors of depressive symptoms. The EMSs are themed around the beliefs that one is inadequate, isolated from others and will not have there emotional needs met. The findings are inconsistent with previous research, but consistent with cognitive theory (1979).

Results of the study investigating the relationship between EMSs and anxious pathology also indicated that Dependence/Incompetence and Enmeshment EMSs were unique predictors of anxious arousal. Those two schemas revolve around one's perceived inability to have control over their functioning, or perform independently without outside help. The results imply that individuals who rely to heavily on outside support will be more prone to develop anxious pathology. More interestingly the Vulnerability to Harm EMS continues to seem to be an important predictor of both depressive and anxious pathology. The EMS was a significant predictor of all four psychological outcomes including the outcomes that measure symptoms unique to both depression and anxiety.

The third goal of the current study was investigate the relationship between EMSs and the development of maladaptive coping styles. Based on Young's model (Young, 1999); it was hypothesized that specific EMSs will be able to predict the presence of maladaptive coping styles. In particular, it was hypothesized that EMSs revolved around negative self image (Defectiveness/Shame, Dependence/Incompetence, Failure and Social Isolation) and fear of abuse/harm (Vulnerability to Harm and Mistrust/Abuse) would be significant individual predictors of maladaptive coping styles. Results of the

study indicated that nine of the 15 EMSs were significant predictors of one of the six maladaptive coping styles. As hypothesized Defectiveness/Shame, Dependence/Incompetence, Vulnerability to Harm and Mistrust/Abuse EMSs significantly predicted maladaptive coping styles. In addition Self-Sacrifice, Subjugation and Enmeshment significantly predicted maladaptive coping styles. More specifically, EMSs seem to be most influencing the use of maladaptive copings styles such as self-blame and denial. Consistent with cognitive theory, maladaptive schematic processing increases the likelihood that one will incorrectly assign responsibility for external stressors. The implications of the results are that if clinicians work on modifying maladaptive schemas individuals should be able to cope more effectively with environmental stressors.

The final goal of the study was to investigate the relationship between interpersonal functioning and EMSs. It was hypothesized that EMSs will account for a significant portion of the variance in all interpersonal domains. It was specifically hypothesized that schemas relating to impaired autonomy (Dependence/Incompetence, Enmeshment, Vulnerability to Harm and Abandonment) will be significant individual predictors of the interpersonal problems of Needy. It was also hypothesized that the EMSs of Subjugation and Self-Sacrifice will be significant individual predictors of Non-Assertiveness and Over-Accommodating.

Results indicted that EMSs accounted for a significant portion of the variance in all 8 interpersonal problems. Results also indicated that overall both the schemas of Vulnerability to Harm and Self-Sacrifice were the most consistent predicators of interpersonal problems. Self-Sacrifice was a significant individual predictor in 5 out of 8

of the interpersonal problems and Vulnerability to harm reached significance in 4 out of 8 of the interpersonal problems. Also as hypothesized Enmeshment, Vulnerability to Harm, Dependence/Incompetence and Abandonment EMSs all predicted the interpersonal problem of Needy. The belief that one cannot survive, function independently, or perform successfully with outside help or will be abandonment will increase the likelihood that one will become needy and dependent in their everyday relationships. The results are also consistent with the cognitive model dependent personality disorder (Young, 2003).

Results also indicated that Self-Sacrifice, Subjugation and Vulnerability to Harm significantly predicted the interpersonal problem of Over-Accommodating. Individuals who put excessive focus on the desires, feelings, and responses of others at the expense of one's own needs are more prone to be over accommodating in their everyday. Failure, Vulnerability to Harm and Subjugation EMSs were also significant predictors of the interpersonal problem Non-Assertive. The results imply that individuals who fear that they will fail or will be harmed are less likely to assert themselves in their everyday interpersonal relationships. Overall, the results investigating the relationship between EMSs and interpersonal problems support cognitive theory and the importance of modifying maladaptive schemas in individual experiencing interpersonal problems and symptoms of personality disorders.

There are a number of limitations to this study. The first limitation lies within the instrumentation used to measure maladaptive coping styles. The Brief COPE does not assess maladaptive coping styles that are consistent with those hypothesized within Young's (1999) theoretical model. Specifically, Young (1999) hypothesized that

individuals cope with schemas by using overcompensation, surrender, and/or avoidance styles of coping. The Breif COPE only measured one of the three primary coping behaviors (avoidance) consistent with Young's theory. Future studies might utilize measures of coping styles that include more styles consistent with Young's theoretical model.

A second limitation lies within the composition of the current sample. The current sample was taken from an undergraduate population and the makeup of the sample was relatively homogenous. The majority of the participants were young, Caucasian females. The current study should be replicated in a clinical and more heterogeneous non-clinical population. Replicating the study in different sample would increase the generalizability of the current finding.

A third limitation of the study is the number of analyses conducted to test the mediational model compared to the sample size. The high number of analyses conducted increases the possibility that a Type I errors may have occurred. In attempts to control for this, a more conservative p-value (p= .01) was used.

A fourth limitation of the study lies within the procedure of the methods. Absent form the study was a question that asked participants to specifically identify who they are rating on the mother and father PBI forms (e.g., step-mom, biological father, adoptive parent). Also the question on the demographics questionnaire in reference to participants identifying their household composition yielded over 50% missing data. Not knowing who the participant's rated and being able to compare that information with their household composition limited the ability to confirm the reliability and accuracy of the results of the PBI. Future studies should consider having participants identify the

individuals who they are rating and investigating how those differences may be influencing the results.

A final limitation lies within the utilization of the PBI. The PBI only measures two types of maladaptive parenting styles and previous research has indicated a wider range of maladaptive parenting styles/characteristics (physical abuse, sexual abuse and neglect) to the development of pathology. Future studies might also want to investigate a wider range of maladaptive parental styles in relation to schema development and the development of psychopathology.

In conclusion, the current study further supports EMSs mediating role between negative maternal parenting styles and depressive symptoms. The results also imply that EMSs also play a mediating role between maternal parenting styles and anxious symptoms. Specifically the results of the study indicated that Social Isolation and Vulnerability to Harm EMSs mediate the relationship between maternal parenting styles and depressive symptoms. Both EMSs reflect negativistic and self-defeating beliefs about oneself and their environment and both EMS are consistent with cognitive theory. Cognitive theory states that those two schemas are usually predominate in individuals who experience depression. Results also indicated that Vulnerability to Harm and Enmeshment EMSs mediate the relationship between maternal parenting styles and anxious symptoms The EMSs reflect the fundamental belief that one can not function without the help of other and that danger/harm is eminent and both schemas are consistent with cognitive theory. Cognitive theory also states that those two schemas are usually perdominate in individuals who experience anxiety.

In addition, the current study further supports EMSs ability to predict depressive and anxious symptoms. However, the ability of specific EMSs to be unique predictors of either depressive symptoms or anxious symptoms continues to remain unclear. Lastly, the current study supports EMSs ability to predict interpersonal problems and maladaptive coping styles. Interpersonal problems are predominately symptomatic of personality disorders, which suggest that EMSs may be significant predictors of specific personality disorders like Dependent Personality Disorder and Borderline Personality Disorder. The support for EMSs as predictors of maladaptive coping styles is promising, but further research is needed to more specifically explore the role EMSs play in the development of maladaptive coping styles.

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Appendix A

Means and Standard Deviations for Depressive Symptoms, Anxious Symptoms and EMSs and Intercorrelations Between EMSs and Anxious and Depressive Symptoms

	GDEP	ADEP	GANX	AANX	*M*	*SD*	*α*
Emotional Deprivation	.20**	.27**	.19*	.21**	.33	.80	.65
Abandonment	.41**	.19**	.38**	.38**	.82	1.50	.87
Mistrust/Abuse	.41**	.31**	.33**	.33**	1.04	1.50	.77
Social Isolation	.45**	.40**	.34**	.26**	.66	1.40	.87
Defectiveness/Shame	.29**	.23**	.30**	.24**	.25	.88	.86
Failure	.40**	.13*	.28**	.22**	.31	.93	.83
Dependence/Incompetence	.33**	.15*	.37**	.37**	.46	.81	.47
Vulnerability to Harm/Illness	.43**	.31**	.45**	.44**	.67	1.11	.68
Enmeshment	.23**	.14*	.22**	.28**	.35	.80	.62
Subjugation	.40**	.27**	.32**	.33**	.56	1.10	.70
Self Sacrifice	.23**	.07	.20**	.18**	2.20	1.63	.73
Emotional Inhibition	.37**	.24**	.24**	.23**	.85	1.40	.82
Unrelenting Standards	-.36**	-.20**	.13*	.01	2.70	1.81	.80
Entitlement	-.01	-.01	.04	.01	1.12	1.22	.80
Insufficient Self-Control	.29**	.29**	.25**	.25**	1.10	1.55	.60
α	.91	.91	.84	.88			
M	25.2	57.0	22.3	27.6			
SD	9.91	14.8	8.00	9.91			

Note. Schemas listed in left column; GDEP = General distress: Depressive Symptoms; ADEP = Anhedonic Depression; GANX = General Distress: Anxious Symptoms: AANX = Anxious Arousal *$p < .05$, **$p < .01$

Appendix B

Means and Standard Deviations for Parental Styles and Intercorrelations Between EMSs and Parental Styles

	OVERM	CARINGM	CARINGF	OVERF
Emotional Deprivation	.15*	-.36**	-.15*	.17*
Abandonment	.28**	-.28**	-.19**	.09
Mistrust/Abuse	.29**	-.35**	-.22**	.16*
Social Isolation	.27**	-.30**	-.16*	.15*
Defectiveness/Shame	.33**	-.32**	-.11	.20**
Failure	.05	-.13	-.02	-08
Dependence/Incompetence	.11	-09	-.16	.02
Vulnerability to Harm/Illness	.18**	-.23**	-.09	-.05
Enmeshment	.24**	-.10	-.14*	.04
Subjugation	.20**	-.30**	-.07	.05
Self Sacrifice	.14*	-.11	-.04	-.04
Emotional Inhibition	.20**	-.15*	-.21**	.12
Unrelenting Standards	.05	.04	.02	-.12
Entitlement	.17*	-.15*	-.04	-.04
Insufficient Self-Control	.27**	-.23**	-.21**	.01
α	.83	.83	.86	.58
M	12.9	29.2	20.0	16.0
SD	7.29	6.82	3.19	2.47

Note. OVERM = Overprotection Mother; CARINGM = Caring Mother; CARINGF = Caring Father; OVERF = Overprotection Father

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

Appendix C

Intercorrelations Between Parental Styles and Anxious and Depressive Symptoms

	OVERM	CARINGM	CARINGF	OVERF
General Distress:				
Depressive symptoms	.22**	-.17*	-.12	.12
Anhedonic Depression	.27**	-.29**	-.21**	.17*
General Distress: Anxious				
Symtoms	.21**	-.10	-.13	.16*
Anxious Arousal	.23**	-.17*	-.17*	.23*

Note. OVERM = Overprotection Mother; CARINGM = Caring Mother; CARINGF = Caring Father; OVERF = Overprotection Father

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

Appendix D

Summary of Simultaneous Regression Analyses for EMSs as Predictors of Depressive and Anxious Symptoms

		Regression Model			Individual Predictors		
		R^2	F	p	$SE\ B$	β	t
Criterion Variable	Predictor Variables						
General Distress: Depressive Symptoms		.41	9.7	.000***			
	Social Isolation				.55	.16	2.01*
	Failure				.70	.19	2.9**
	Vulnerability to Harm				.60	.18	2.6**
	Entitlement				.50	-.14	-2.2*
Anhedonic Depression		.30	5.9	.000***			
	Emotional Deprivation				1.2	.14	2.2*
	Insufficient Self-Control				.70	2.4	2.1*
	Unrelenting Standards				.53	-.21	-3.3***
	Vulnerability to Harm				.97	.16	2.2*
	Social Isolation				.90	.25	3.0**
General Distress: Anxious Symptoms		.34	7.2	.000***			
	Vulnerability to Harm				.51	.27	3.8***
	Dependence/ Incompetence				.67	.19	2.8**
	Entitlement				.42	-.14	-2.2*
Anxious Arousal		.35	7.5	.000**			
	Vulnerability to Harm				.62	.25	3.5***
	Dependence/ Incompetence				.82	.23	3.4***
	Entitlement				.52	-.17	-2.6**
	Enmeshment				.77	.16	2.6**

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix E

Summary of Regression models testing for Schemas as Mediator Between Maternal Parenting and GDEP

Independent Variable	Dependent Variable	R^2	*F* for *R (df)*	*B* (Standardized)
(1) PBI-O-m	Failure	.01	1.84 (2,224)	-.03,
PBI-C –m				-.14
(1) PBI-O- m	Social Isolation	.11	13.70*** (2,224)	-.15*
PBI-C - m				-.22**
(2) Social Isolation	GDEP	.20	55.20*** (1,224)	.47***
(3) Step 1				
Social Isolation	GDEP	.20	55.20*** (1,224)	.42***
Step 2				
PBI-O -m	GDEP	.01	1.47 (2,220)	.12
PBI-C-m				.02
(1) PBI-O-m	Vulnerability to	.06	6.98*** (2,224)	.08
PBI-C-m	Harm			-.19*
(2) Vulnerability to Harm	GDEP	.18	50.17*** (1,224)	.43***
(3) Step 1				
Vulnerability to Harm	GDEP	.18	50.17*** (1,224)	.40***
Step 2				
PBI-O-m	GDEP	.02	2.49 (2,220)	.13
PBI-C-m				-.01
(1) PBI-0-m	Entitlement	.33	3.79 (2,224)*	.12
PBI-C-m				-.09
(2) Entitlement	GDEP	.001	.02 (2,223)	-.01

Note. PBI-O-m = Parental Bonding Inventory-Overprotection (Mother Form); PBI-C = Parental Bonding Inventory-Caring (Mother Form.

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix F

Summary of Regression models testing for Schemas as Mediator Between Maternal Parenting and ADEP

Independent Variable	Dependent Variable	R^2	*F* for *R (df)*	*B* (Standardized)
(1) PBI-O and PBI-C-m	Insufficient Self-Control	.08	10.9*** (2.224)	.20**, -.12
(2) Insufficient Self-Control	ADEP	.08	20.14*** (1,223)	.29***
(3) Step 1				
Insufficient Self-Control	ADEP	.08	20.14*** (1.223)	.22***
Step 2				
PBI-O and PBI-C-m	ADEP	.06	8.01*** (2,221)	.11, -.18*
(1) PBI-O and PBI-C –m	Social Isolation	.11	13.70*** (2,224)	.15*, -.22***
(2) Social Isolation	ADEP	.16	43.2**** (1,223)	.40***
(3) Step 1				
Social Isolation	ADEP	.16	43.2**** (1,223)	.33***
Step 2				
PBI-O and PBI-C-m	ADEP	.04	5.4** (2,223)	.10, -.13
(1) PBI-O and PBI-C –m	Vulnerability to Harm			
(2) Vulnerability to Harm	ADEP	.09	22.92*** (1,223)	.31***
(3) Step 1				
Vulnerability to Harm	ADEP	.09	22.92*** (1,223)	.24***
Step 2				
PBI-O and PBI-C-m	ADEP	.06	8.4*** (2,221)	.14, -.16*
(1) PBI-0 and PBI-C-m	Emotional Deprivation	.13	16.9*** (2,224)	-.06, -.39***
(2) Emotional Deprivation	ADEP	.06	13.2*** (1,223)	.24***
(3) Step 1				
ED	ADEP	.07	13.2*** (1.223)	.16*
Step 2 PBI-O, PBI-C-m	ADEP	.07	8.62*** (2,221)	.17*, -.15
(1) PBI – O, PBI-C-m	Unrelenting Standards	.01	1.05 (2,224)	.10, .99

Note. PBI-O-m = Parental Bonding Inventory-Overprotection (Mother Form); PBI-C-m = Parental Bonding Inventory-Caring (Mother Form).

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix G

Summary of Regression models testing for Schemas as Mediator Between Maternal Parenting and GANX and AANX

Independent Variable	Dependent Variable	R^2	*F* for *R (df)*	*B* (Standardized)
(1) PBI-O-m	Vulnerability to	.06	6.98*** (2,224)	.08
PBI-C –m	Harm			-.19*
(2) Vulnerability to Harm	GANX	.20	57.1*** (1,223)	.45***
(3) Step 1				
Vulnerability to Harm	GANX	.20	57.1*** (1,223)	.440***
Step 2				
PBI-O -m	GANX			.18**
PBI-C-m		.02	3.43 (2,221)	.10
(1) PBI-O-m	Dependence/			.09
PBI-C –m	Incompetence	.01	1.57 (2,224)	-.04
(1) PBI-0 -m	Entitlement			.12
PBI-C-m		.03	3.79* (2,224)	-.09
(2) Entitlement	GANX	.001	.29 (1,224)	.04
(1) PBI-O-m	Vulnerability to	.06	6.98*** (2,224)	.08
PBI-C –m	Harm			-.19*
(2) VUL	AANX	.19	53.1*** (1,223)	.44***
(3) Step 1				
Vulnerability to Harm	AANX	.19	53.1*** (1,223)	.42***
Step 2				
PBI-O -m	AANX	.03	3.75* (2,224)	.19*
PBI-C-m				.06
(1) PBI-O-m	Dependence/			.09
PBI-C –m	Incompetence	.01	1.57 (2,224)	-.04
(1)PBI-O, PBI-C-m	Entitlement	.03	3.79* (2,224)	.12,-.09
(2) Entitlement	AANX	.00	.33 (1,224)	.01
(1) PBI-O, PBI-C –m	Enmeshment	.057	6.77 (2,224)***	.08, .19*
(2) Enmeshment	AANX	.078	18.9 (1,224)***	.28***
(3) Step 1				
Enmeshment	AANX	.078	18.9 (1,224)***	.24***
Step 2				
PBI-O -m	AANX	.029	2.9 (2,224)	-.16*
PBI-C-m				-.03

Note. PBI-O-m = Parental Bonding Inventory-Overprotection (Mother Form); PBI-C-m = Parental Bonding Inventory-Caring (Mother Form).

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix H

Summary of Regression models testing for Schemas as Mediator Between Paternal Parenting and ADEP

Independent Variable	Dependent Variable	R^2	*F* for *R (df)*	*B* (Standardized)
(1) PBI-O and PBI-C-f	Insufficient Self-Control	.04	4.8** (2,209)	-.05, -.22***
(2) Insufficient Self-Control	ADEP	.07	16.5*** (2,208)	.28***
(3) Step 1				
Insufficient Self-Control	ADEP	.07	16.5*** (2,208)	.24***
Step 2				
PBI-O and PBI-C-f	ADEP	.04	4.8* (2,206)	-.19, -.19
(1) PBI-O and PBI-C –f	Social Isolation	.04	4.0* (2.209)	.12, -.13
(2) Social Isolation	ADEP	.17	41.2*** (1,208)	.41***
(3) Step 1				
Social Isolation	ADEP	.17	41.2*** (1,208)	.37***
Step 2				
PBI-O and PBI-C-f	ADEP	.03	3.50* (2,206)	.08, -.13*
(1) PBI-O-f	Vulnerability to	.01	1.35 (2,209)	-.08
PBI-C –f	Harm			-.11
(1) PBI-0 -f	Emotional	.04	4.21* (2,209)	.14*
PBI-C-f	Deprivation			-.11
(2) Emotional Deprivation	ADEP	.08	17.7*** (1,208)	.28**
(3) Step 1				
Emotional Deprivation	ADEP	.08	17.7*** (1.208)	.24
Step 2 PBI-O, PBI-C-f	ADEP	.04	4.3* (2,206)	.09, -.16*
(1) PBI –O, f	Unrelenting	.01	1.5 (2,209)	-.08
PBI-C, f	Standards			-.11

Note. PBI-O-f = Parental Bonding Inventory-Overprotection (Father Form); Parental Bonding Inventory-C-f (father form) = Parental Bonding Inventory-Overprotection.

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix I

Means and Standard Deviations for Coping Styles and Intercorrelations Between EMSs and Coping Styles

	DEN	BD	SB	SU	SD	VENT	AC	HU	PR	ESP
Emotional Deprivation	.22**	.05	.18**	.19**	-.02	.12	-.02	-.06	.04	-.18**
Abandonment	.30**	.10	.32**	.20**	.28**	.20**	-.12	-.05	.04	.07
Mistrust/Abuse	.40**	.34**	.34**	.24**	.28**	.20**	.01	.10	.04	-.12
Social Isolation	.24**	.19	.22**	.14*	.16*	.17*	-.15*	.03	-.05	-.10
Defectiveness/Shame	.24**	.08	.15*	.26**	.15*	.05	-.20**	-.06	-.03	-.14
Failure	.09	.13	.32**	.06	.15*	.14*	-.13	.15*	-.02	.01
Dependence/Incompetence	.15*	.12	.33**	.10	.19**	.22**	-.05	.17	.10	.08
Vulnerability to Harm/Illness	.26**	.13	.29**	.22*	.22**	.15**	-.06	.09	.07	-.02
Enmeshment	.26**	.17**	.23*	.11	.13*	.23**	.10	.17*	.15*	.11
Subjugation	.14*	.22**	.39**	.04	.21**	.23**	-.08	.04	.06	.05
Self Sacrifice	.14*	.23**	.34**	.06	.24**	.16*	.15*	.17*	.21*	.13
Emotional Inhibition	.25**	.25**	.28**	.26**	.19**	.10	-.08	.07	.01	-.07
Unrelenting Standards	-.02	-.08	.05	-.03	.26**	.10	.33**	.12	.25*	.20**
Entitlement	.13*	.05	.13	.15*	.11	.03	.06	.09	.04	.05
Insufficient Self-Control	.21**	.19**	.26**	.23**	.17*	.09	-.19**	.60	-.02	-.10
α	.73	.54	.70	.89	.54	.44				
M	3.02	3.00	4.45	3.11	5.23	4.39	5.28	4.36	5.17	5.02
SD	1.44	1.22	1.75	1.58	1.67	1.54	1.69	1.97	1.70	1.85

Note. Coping Styles: DEN = Denial; BD = Behavioral Disengagement; SB = Self-Blame; SU = Substance Use; SD = Self-Distraction; VENT = Venting; AC = Active Coping; PR = Positive Reinterpretation; ESP = Use of Emotional Support; ISP = Use of Instrumental Support; PLAN = Planning; ACC = Acceptance; REL = Religion. $*p < .05$, $**p < .01$

Appendix J

Summary of Simultaneous Regression Analyses for EMSs as Predictors of Maladaptive Coping Styles

		Regression Model			Individual Predictors		
		R^2	F	p	$SE\ B$	β	t
Criterion Variable	Predictor Variables						
Venting		.15	2.4	.003***			
	Enmeshment				.14	.18	2.4*
Substance Abuse		.19	3.2	.000***			
	Subjugation				.13	-.21	-2.4*
	Defectiveness/Shame				.15	.17	2.0*
	Emotional Inhibition				.08	.15	1.9*
Self-Blame		.34	7.1	.000***			
	Self-Sacrifice				.07	.24	3.6***
	Subjugation				.13	.20	2.5*
	Dependence/ Incompetence				.15	.17	2.5*
Self-Distraction		.20	3.5	.000***			
	Unrelenting Standards				.06	.22	3.2**
Denial		.27	5.0	.000***			
	Enmeshment				.12	.14	2.0*
	Defectiveness/Shame				.13	.23	2.8**
	Mistrust/Abuse				.08	.25	3.0**
Behavioral Disengagement		.21	3.6	.000***			
	Self-Sacrifice				.05	.16	2.2*
	Mistrust/Abuse				.07	.28	3.2***

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix K

Means and Standard Deviations for Interpersonal Problems and Intercorrelations Between EMSs and Interpersonal Problems

	DOM	VIN	COLD	SOC	NON	OVER	SELF	NEED
Emotional Deprivation	.23**	.20**	.26**	.19**	.15*	.14*	.07	.10
Abandonment	.10	-.05	.00	.27**	.35**	.37**	.35**	.35**
Mistrust/Abuse	.21**	.10	.27**	.19**	.20**	.31**	.32**	.10
Social Isolation	.06	.03	.23**	.46**	.32**	.39**	.24**	.20**
Defectiveness/Shame	.05	.04	.21**	.10	.24**	.26**	.12	.13*
Failure	-.01	.09	.01	.09	.36**	.34**	.33**	.26**
Dependence/Incompetence	.13	.19**	.10	.10	.20**	.19**	.23**	.31**
Vulnerability to Harm/Illness	.20**	-.03	.08	.22**	.38**	.38**	.33**	.36**
Enmeshment	.31**	.14*	.12	.03	.05	.12	.17*	.23**
Subjugation	-.06	.01	.06	.23**	.49**	.54**	.35**	.27**
Self Sacrifice	.03	.18**	-.14*	-.07	.09	.31**	.53**	.18**
Emotional Inhibition	.20**	.25**	.40*	.20**	.23**	.21**	.10	-.02
Unrelenting Standards	.02	-.07	-.04	-.09	-.08	-.03	.11	-.01
Entitlement	.29**	.12	.08	.04	.01	.08	.05	.14*
Insufficient Self-Control	.15*	.04	.06	.16*	.26*	.29**	.29**	.23*
Inter-reliability Alphas	.77	.89	.86	.84	.82	.71	.79	.71
M	3.30	3.42	4.16	5.47	5.53	5.59	6.05	3.02
SD	3.26	3.89	4.30	4.23	3.79	3.46	3.85	2.82

Note. Interpersonal Problems: DOM = Domineering/Controlling; VIN = Vindictive/Self-control; COLD = Cold/Distant: SOC = Socially Inhibited; NON = Non-assertive; OVER = Over accommodating; SELF = Self-sacrificing; NEEDY = Needy

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

Appendix L

Summary of Simultaneous Regression Analyses for EMS as Predictors of Interpersonal problems

		Regression Model			Individual Predictors		
		R^2	F	p	$SE\ B$	β	t
Criterion Variable	Predictor Variables						
Cold/Distant		.26	6.3	.000***			
	Emotional Deprivation				.36	.15	2.13*
	Mistrust/Abuse				.24	.18	2.17*
	Self-Sacrifice				.18	-.20	-2.8**
	Emotional Inhibition				.22	.28	3.9***
Non-Assertive		.32	6.3	.000***			
	Subjugation				.29	.31	3.8***
	Vulnerability to Harm				.25	.21	2.8**
	Failure				.29	.15	2.0*
Over-Accommodating		.38	8.1	.000***			
	Self-Sacrifice				.14	.17	2.6**
	Subjugation				.25	.37	.48***
	Vulnerability to Harm				.22	.15	.21*
Needy		.28	5.5	.000			
	Enmeshment				.24	.16	2.5*
	Vulnerability to Harm				.19	.19	2.6*
	Dependence				.25	.15	2.2*
	Abandonment				.15	.22	2.6**
Self-sacrificing		.41	9.5	.000***			
	Self-Sacrifice				.15	.39	6.3***
	Failure				.27	.15	2.2*
Domineering		.24	4.3	.000***			
	Entitlement				.19	.18	2.6**
	Subjugation				.26	-.23	-2.6**
	Emotional Deprivation				.28	.17	2.4*
	Enmeshment				.28	.18	2.5*
Vindictive		.17	2.9	.000***			
	Emotional Inhibition				.21	.22	2.8**
	Self-Sacrificing				.18	-.19	-2.6**
Social Isolation		.28	5.3	.000***			
	Self-Sacrificing				.18	-.16	-2.3*
	Social Isolation				.26	.43	5.1***

* $p < .05$, ** $p < .01$, *** $p < .001$