



Theses and Dissertations

2011-04-20

Antecedents of Parental Psychological Control: A Test of Bowen's Theory

Spencer D. Bradshaw
Brigham Young University - Provo

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>



Part of the [Family, Life Course, and Society Commons](#)

BYU ScholarsArchive Citation

Bradshaw, Spencer D., "Antecedents of Parental Psychological Control: A Test of Bowen's Theory" (2011). *Theses and Dissertations*. 2631.

<https://scholarsarchive.byu.edu/etd/2631>

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact scholarsarchive@byu.edu, ellen_amatangelo@byu.edu.

Antecedents of Parental Psychological Control:

A Test of Bowen's Theory

Spencer D. Bradshaw

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

Roy A. Bean, Chair
Leslie L. Feinauer
Laura M. Padilla-Walker

Department of Marriage and Family Therapy

Brigham Young University

June 2011

Copyright © 2010 Spencer Bradshaw

All Rights Reserved

ABSTRACT

Antecedents of Parental Psychological Control: A Test of Bowen's Theory

Spencer D. Bradshaw
Department of Marriage and Family Therapy, BYU
Master of Science

Parental psychological control has been found to be associated with both internalized and externalized problems for youth and adolescents. Research contributing to an understanding of the possible antecedents of parental psychological control is both limited and of need; specifically regarding parents' psychological attributes. This study sample included 323 two-parent families and an identified target child from each family. Bowen's theory of family systems, [chronic] stress, and differentiation of self and its relation to parental psychological control was examined. Differentiation of self was hypothesized to mediate the relationship between chronic stress and parental psychological control. Differentiation was conceptualized and measured using two subscales assessing emotional reactivity and emotional cutoff. Fathers and mothers were included in the same model to assess for potential partner influences as well possible gender differences. Parental age, parental education, and family income were also included as control variables. Study analyses included bivariate correlations, independent T-tests, and structural path models; all based on study variables constructed in a structural equation measurement model. To test for mediation by differentiation of self, an initial structural model examining the relationship between levels of parental chronic stress and parental psychological control was utilized. Only paternal chronic stress and paternal education predicted child-reported levels of parental psychological control. Parent-reported levels of differentiation of self, when included in a structural path model, did not mediate the relationship between chronic stress and psychological control but did have a significant indirect effect on this relationship. Both maternal and paternal chronic stress significantly predicted individual parental levels of emotional reactivity and emotional cutoff. Systemically, maternal levels of emotional cutoff predicted paternal levels of parental psychological control and paternal levels of emotional reactivity predicted maternal levels of parental psychological control. No control variables other than paternal education had a salient, significant, or interpretable effect on endogenous study variables (differentiation of self and parental psychological control). Paternal and maternal levels of emotional reactivity appeared to partially mediate the relationship between paternal education and maternal psychological control. Interpretation for results, study limitations and future directions, and clinical implications are discussed.

Keywords: Parental psychological control, Differentiation of self, Chronic Stress, Parenting, Antecedents, Mediation, Indirect effects

ACKNOWLEDGEMENTS

I first and foremost want to thank my heavenly father who has given me everything and made the privilege of education possible. I love and appreciate my wife, Marybeth, for her continued support, patience, and love during the rigors of education and personal growth. Her sacrifice has been inspiring and difficult in raising three young children. Her faith, belief, and hope in me were instrumental throughout our life together and through my education program. I love and appreciate my children and their unconditional love towards me and their smiles that warm my heart. They are quick to forgive and have beneficially changed who I am. I appreciate the love, sacrifice, support, time, finances, and resources given by immediate and extended family. There is absolutely no way this all would have been possible without them and their help.

I want to thank Dr. Roy Bean for his mentorship, friendship, and time he gave towards my personal development and this thesis project. He took strong invested interest in me regardless of personal return or gain (or lack thereof), and has strongly influenced my life, what I am now, and am working to become. He significantly helped me change for the better and cared for me as a person; I will be forever grateful. I am grateful to Dr. Leslie Feinauer who helped me gain great theoretical insight into the concepts of this study and others which have helped me both academically, clinically, and personally. I appreciate her accepting attitude and desire for my success. I want to thank Dr. Laura Padilla Walker who offered me great assistance on both technical and conceptual aspects of research and writing. Her research expertise is second to none and she really helped me understand directions for my own improvement. I learned much from her that will be influential to me moving forward. I am grateful to Dr. Jeremy Yorgason for his friendship, one on one statistical consultation to help broaden my understanding of statistics in general and for this thesis, and his genuine interest in my development.

Table of Contents

Chapter 1	1
Introduction	1
Literature Review	1
An Overview of Psychological Control.....	1
Correlates and Antecedents of Psychological Control.....	4
Chronic Stress.....	6
Differentiation of Self	10
Emotional Reactivity	11
Emotional Cutoff	12
Differentiation and Chronic Stress	15
Differentiation and Parental Psychological Control	16
Differentiation and Mediation vs. Moderation	17
Summary.....	18
Hypotheses	19
Chapter 2.....	21
Method	21
Participants	21
Procedure	22
Measures	24
Parental Psychological Control.....	24
Chronic Stress	24
Differentiation of Self.....	25
Control Variables	25
Proposed Data Analyses	26
Chapter 3.....	28
Results	28
Measurement Invariance.....	29
Measurement Model Analysis	33
Path Analyses	36

Control Variables.....	38
Chapter 4.....	41
Discussion	41
Clinical Implications.....	48
Limitations and Future Directions.....	50
Conclusion.....	54
References	56

List of Tables

Table 1: Study variables' means and standard deviations, M (SD).....	67
Table 2: Bivariate Correlations Among Continuous Study Variables.....	68

List of Figures

Figure 1: Full Measurement Model (without item indicators and error variance correlations).....	69
Figure 2: Structural model with chronic stress and psychological control.....	70
Figure 3 : Structural model with all study and control variables.....	71

Chapter 1

Introduction

Parental psychological control, or “control attempts that intrude into the psychological and emotional development of the child” (p. 3296, Barber, 1996), has been shown to have a significant impact on the development and health of youth and adolescents. Previous research has shown that parental psychological control has been negatively associated with the indicators of positive child/adolescent functioning or well-being, while being positively associated with various types of problem behaviors such as internalized problems and antisocial behavior (Barber, Olsen, & Shagle, 1994; Pettit, Laird, Dodge, Bates, & Criss, 2001; Torrente & Vazsonyi, 2008). Despite the growing research literature that examines the impact of psychological control on children and adolescents, research is far more limited in exploring the antecedents associated with parental psychological control. The focus of this study is to examine stress and differentiation of self as hypothesized predictors of parental psychological control.

Literature Review

An Overview of Psychological Control

Understanding more clearly the relationship between parental behaviors and how they are associated with “patterns of child and adolescent cognitive, social, emotional, and behavioral development” (Barber, 2002, pg. 3) has been one topic of both recent research focus and historical interest. One aspect of parental behavior that has been studied extensively is parental control, which is commonly categorized as including both behavioral control and psychological control (Barber, 2002). Barber explained that behavioral control is focused on how parents “attempt to control or manage children’s behavior”. The majority of research findings have negatively associated behavioral control with externalized problems such as delinquency or

substance abuse. Psychological control, on the other hand, is concerned more with “control – and violation – of the child’s psychological self” (Barber & Harmon, 2002, pg. 16). It has been further defined as being “intrusive in manipulating and constraining children and adolescents” (Barber, 2002, pg. 6).

Internalizing problems for children and adolescents have been found to be associated with parental psychological control. Some studies have found maternal psychological control to be positively associated with lower levels of self-esteem in children and African American and European American adolescents (Bean, Bush, McKenry, & Wilson, 2003; Leonardi & Kiosseoglou, 2002). Psychological control has also been linked to adolescent depression (Barber, 1996). Barber and Harmon (2002), in their summary article examining youth outcomes, concluded that psychological control is associated with lower scores on a variety of positive factors (i.e., psychological maturity, self-reliance, self-confidence, and self-worth) and higher rates of negative outcomes such as passive resistance, self-derogation, eating disorders in males, suicidal ideation, identity status for females, depression, bulimia, and drive for thinness. Additional studies have further confirmed the positive relationship between parental psychological control and adolescent internalized problems (i.e., loneliness, confusion, depression; Barber et al., 1994).

Parental psychological control has more recently been found to be positively associated with child/adolescent externalized problems as well. These externalized problems include childhood relational aggression (Kuppens, Grietens, Onghena, & Michiels, 2009), delinquency and antisocial behaviors for girls and teens (Pettit et al., 2001; Torrente & Vazsonyi, 2008). Similarly, parental psychological control has been found to be positively related to a tendency to associate with deviant peers (Soenens, Vansteenkiste, Smits, Lowet, & Goossens, 2007), which

carries an increased risk of later deviance of junior high school adolescents (Kaplan, Johnson, & Bailey, 1987). Maternal psychological control has also been found to be negatively associated with European American adolescent's academic achievement (Bean et al., 2003).

With significant associations to both internalized and externalized problems for youth and adolescents, it is important to understand more about the antecedents of parental psychological control. Understanding of the antecedents of parental psychological control is considered an area in need of specialization by scholars and is "an area that is wide open for future research" (Barber, Bean, & Erickson, 2002, pg. 275). In addition to this academic contribution to the research, understanding more about the antecedents of parental psychological control may lead to clinical intervention and application that can reduce the prevalence of this type of parenting behavior. The same antecedents of parental psychological control may also provide information about how parents can inversely engage in behaviors that foster autonomy and healthy development in children. Overall, understanding the antecedents of parental psychological control may help reduce both externalizing and internalizing problems for children and adolescents.

Because the construct of psychological control is relatively new to the parenting literature, other parenting literature may be a useful source when trying to understand more about parental psychological control and determining possible antecedents. One construct similar to that of parental psychological control is parental constraining behaviors (Hauser et al. 1984). Hauser et al. (1984) examined both cognitive and affective constraining behaviors of parents towards their children. Cognitive constraint referred to parents who were distracting, withholding, and showed indifference towards their children. Affective constraint referred to the excessive gratifying, judging, and devaluing behavior of parents. Hauser et al. (1984) generalized

these constraining behaviors as ways “in which parents actively resist differentiation of adolescent children” (pg. 197). Hauser et al.’s constraining behaviors are similar to those of parental manipulation, guilt induction, love-withdrawal, expression of disappointment, shame induction through criticism, and excessive possessiveness and protectiveness; all of which are a convergent conceptualization of parental psychological control (Barber, 1996). Hauser et al.’s generalization of constraining behaviors being parental resistance against differentiation of an adolescent child is similar to Barber’s (1996) statement that psychological control is attempts by parents at controlling their children through psychological and emotional intrusion.

Existing research has given us an idea of how parental psychological characteristics, such as ego-development, might be associated with such parenting behaviors. One study found mothers’ ego-development to be significantly associated to positive parenting behaviors of enabling conversation and taking turns in such discussion with their adolescents (Hauser, Houlihan, Powers, & Jacobson, 1991). However, in this study, it is noted that parent’s ego development did not associate with parental use of “undermining” parenting behaviors more similar to Hauser et al.’s (1984) constraining behaviors. Nevertheless, this could have been due to parents not reporting negative undermining behaviors in comparison with willingness to report their own positive parenting behaviors. Nevertheless, this research shows that parental ego-development does impact parenting behaviors related to adolescent development, and examining concepts related to ego-development may also be important when examining antecedents of parental psychological control.

Correlates and Antecedents of Psychological Control. Considering the many adverse effects of parental psychological control on children, a greater understanding of the associated determinants and antecedents of parental psychological control is important. Some studies have

begun this process by examining child characteristics and parenting behaviors as possible antecedents. Barber (1996) found in a longitudinal study that high levels of adolescent depression and anxiety as well as adolescent externalizing behaviors, are reciprocally related to parental psychological control. Pettit et al. (2001) and Pettit and Laird (2002) looked at interaction effects between early parenting practices and child characteristics and found that antecedents for parental psychological control experienced by adolescents are harsh, restrictive discipline by their parents as well as earlier reports of child externalizing problems. Again, this indicates a reciprocal relationship between psychological control and negative child behaviors and outcomes. Nevertheless, this does not tell us much about further characteristics that might be influencing this cycle. Another study found that whether a group of African-American adolescents rated their parents' behaviors as controlling or monitoring was influenced by adolescents' personal beliefs regarding the amount of authority parents should have regulating their children's "ambiguously personal issues" (Smetana & Daddis, 2002). Even though a child's perception or attitude may predict whether or not they feel psychologically controlled by their parent(s); we have yet to understand personal characteristics of the parents themselves who engage in this behavior.

While the aforementioned studies provide a greater understanding of the antecedents and processes of parental psychological control, existing research gives further theoretical suggestions of possible antecedents of psychological control (Barber et al. 2002). Many of these suggestions remain to be examined empirically. Parenting literature suggests that "personal psychological resources of parents, characteristics of the child, and contextual sources of stress and support" as well as "personal psychological attributes", such as depression (Belsky, 1984); have been identified as determinants of parenting. Barber et al. (2002) recommend starting with

these same areas as well as the quality of other significant interpersonal relationships in the lives of parents. They suggest that knowing more about parents' significant relationships might provide missing information as to why parents, in order to retain psychological power, engage in unhealthy psychological and emotional boundaries between them and their children.

Barber also recommends that instead of focusing on the contextual variables associated with parenting, researchers should examine parents' own psychological status as one of the key contributing factors to their tendency to engage in psychological control. One study found that when controlling for parental neuroticism, parents' maladaptive perfectionism (as opposed to adaptive perfectionism) predicted psychological control towards their daughter (Soenens et al., 2005). Perhaps deficits in meeting their own expectations, without an appropriate coping strategy, can lead parents to engage in parental psychological control. Maternal depression levels and "interparental conflict" have also been found to have a significant association with parental psychological control (Crater, 2004). Therefore, both individual and contextual factors regarding psychological health may be related to parental psychological control. This existing research and these recommendations notwithstanding, very little has been written on possible antecedents of parental psychological control related to personal characteristics of parents.

Given the overall lack of research examining antecedents to psychological control, there are several contextual and individual factors that should be explored in order to better understand their possible contribution to this negative parenting behavior. More specifically, the literature relative to chronic stress (as a contextual variable) and parental differentiation-of-self (as an individual variable) is reviewed here.

Chronic Stress. Stress or struggle, from an organismic systems perspective, has been conceptualized in terms of homeostasis and destabilization. Homeostasis is indicative of a

system at rest which will remain at rest unless some other force causes destabilization and irregularity of predictive functioning (Butler & Bird, 2000). A given system must then “reorganize” itself into a new pattern of functioning and come to a state of homeostasis once again. However, there is an appropriate level of both stress (struggle) and rate of change that is optimal to alter a homeostatic system for successful resolution and “reorientation” (Butler & Bird, 2000). Stress may be beneficial towards change and growth of a family system; however, if stress levels become too high, adverse effects are possible.

Such adverse effects of stress in a family system include negative parenting practices. “Family stressors” assessed using Smith and Prior’s (1995) Life Events Questionnaire have been found to be associated with parental over-involvement and overly protective behaviors (Bayer, Sanson, & Hemphill, 2006). Another study has found that stress moderated the relationship between how a mother was parenting and how she parented her own children (Hill, Stein, Keenan, & Wakschlag, 2006). In this study, mothers with childrearing histories that included exposure to high conflict were more prone to engage in harsh parenting with their own children. Stress was assessed using Barnard, Johnson, Booth, & Lee’s (1989) difficult life circumstances scale and stress was found to intensify the relationship between high conflict childrearing histories and current harsh parenting (as cited in Hill et al., 2006). Indeed, Rubin and Mills (1991) indicate that “a parent who is under stress, does not have a supportive social network, and/or has intensive childrearing beliefs, is likely to be insensitive and nonresponsive” (p. 313). Given such previous findings on family stress and negative parenting outcomes; it is hypothesized in this study that family stress both empirically and theoretically linked with harsh, insensitive, and nonresponsive parenting may also be linked with similar parenting in the form of parental psychological control.

For the purposes of this study, chronic stress with regards to common family-based stressors will be examined in terms of their relationship to parental psychological control. Daily hassles, particularly regarding parenting responsibilities, have shown to be an effective measurement for stress in research that has tested parenting behaviors (Crnic & Greenberg, 1990). Family-based factors such as parents' marital relationship quality, the family social network, and work situations have all also been conceptualized as a potential source of either stress or support, and can "promote or undermine parental competence" (Belsky, 1984). Belsky theorized that when family factors cause more stress than support, parental psychological well-being is negatively impacted and negatively affects parenting behaviors. This supports the idea that stress outcomes are dependent to some extent on the amount of stress and rate of change experience – being that higher levels of support would minimize stress levels experienced by an individual or at least help with the competency of managing stress.

Chronic stress has already empirically been found to affect parental psychological well-being. Quittner, Glueckauf, and Jackson (1990) found chronic parenting stress to be associated with maternal psychological distress in the form of depression and anxiety. They also found chronic parenting stress specifically to account for much more of the variance in maternal psychological distress than did other stressful life events. It is acknowledged that these authors' examined chronic stress related to parenting a child with a chronic illness and that they delineate chronic stress from "daily hassles" (p. 1267). Despite differences in pervasiveness and intensity, their findings support the idea that stress can affect a parents' psychological well-being. Another study has also found chronic stress as measured by economic strain, along with parents' coping resources, to significantly predict parental anxiety and depression (Raviv, 2003). This same study found negative life events or "life stress" to explain the variance in parental hostility and

not in parental anxiety or depression. Therefore, it appears that there is strong link specifically between stress impact that is chronic and how it affects parents as opposed to a stressful life event. Long, drawn out stress that requires coping and psychological abilities of parents can reduce their psychological resources and health.

Parenting stress is also significantly associated with general levels of psychological distress (Bonds, Gondoli, Sturge-Apple, & Salem, 2002). When a parent has reduced psychological resources or psychological distress, it can affect parenting. Parental anxiety, for example, has been found to be associated with deficits in parental care and higher levels of overprotection (Heider et al., 2008). Depression has been perhaps one of the most commonly researched diagnosis and manifestation of psychological distress. Maternal depression has been found to be associated with mothers showing more negative affect in interactions with their child (Radke-Yarrow & Nottelmann, 1993), authoritarian/coercive parenting (Bor & Sanders, 2004), and a stronger association with “negative” behaviors than with “disengaged” or “positive” behaviors (Lovejoy, Graczyk, O'Hare, & Neuman, 2000). In the latter study, negative behaviors were classified as mothers exhibiting negative affect or behaviors of coercion or hostility (which among other behaviors included intrusiveness). The negative parenting behaviors associated with parental psychological distress previously mentioned - negative affect, coercion, hostility, and lack of care - are similar to behaviors of parental psychological control (Barber, 1996).

Deficits in parenting, however, can occur from many sources of psychological distress. One study examining adult psychopathology and parenting behaviors determined that a “wide variety” of adults’ mental disorders rather than any specific disorder were associated with a “lack of care” in parenting (Enns, Cox, & Clara, 2002). In their review on parenting and mental health, Conley, Caldwell, Flynn, Dupre, & Rudolph (2004) explore the existing research of how, in

addition to depression and anxiety, schizophrenia and other psychosis, substance abuse, and antisocial behavior and personality all can negatively affect parenting behaviors. It is clear that psychological distress along with diminished psychological resources can affect parenting. Psychological distress, often as a result of stress, appears to take many forms and have wide reaching effects into parenting behaviors.

Understanding that chronic stress (conceptualized through common family stressors in this study) has been found to associate with variables such as parental anxiety and depression, and that such psychological distress has been related to a lack of parental competency and negative parenting behaviors; it is logical to suggest that stress levels may also be associated with parental psychological control via some form of parental psychological distress. (Barber et al., 2002). Despite previous discussion of depression, anxiety, and other mental disorders more specifically; our purpose has been to show the clear relationship between a parent's psychological resources, stress, and parenting behaviors. We therefore turn to and examine Bowen's theory of differentiation of self, an empirical (Miller, Anderson, & Keala, 2004) and theoretical key to psychological distress, as a possible mediating variable between chronic stress and parental psychological control. We expect that the parental levels of differentiation of self will explain the relationship between chronic stress and parental psychological control and help better explain psychologically controlling behavior.

Differentiation of Self. Conceptualized as roughly analogous to "ego strength", differentiation-of-self has been expressed as "the capacity to think and reflect, to not respond automatically to emotional pressures, internal or external" (Nichols & Schwartz, 2008, p. 127). Internally, a well differentiated person can separate their emotions from their intellect while using both to choose their course of behavior (Kerr & Bowen, 1988). Therefore, when looking at

differentiation of self at the intra-psychic level, an individual has the ability to navigate between intellectual systems and choose appropriate behavior depending on the context. When viewed as an individual, internalized process, the highly undifferentiated individual is likely to engage in what has been termed “emotional reactivity” (Bowen & Kerr, 1988, p. 320)

Externally, the well differentiated person has the ability to simultaneously be an individual as well as part of a group or intimate relationship. When seen this way, differentiation of self can refer to how one balances their individuality and group belonging in their family of origin (Bowen, 1978) as well as other significant family and intimate relationships (Bowen, 1978, Skowron & Friedlander, 1998) When an individual does not have healthy differentiation on this interrelationship level, they are theorized to engage in either emotional cutoff or fusion. Regarding either the individual level (intellect and emotional systems) or the relational (individual vs. larger group); differentiation of self implies healthy balance and flexibility between dichotomous influences and leads to psychological and emotional well-being.

Emotional Reactivity. A low-differentiated individual may become “emotionally reactive and engage in emotional cutoff or fusion with others” (Skowron, Stanley, & Shapiro, 2009) in order to cope with the stress of the system. Emotional reactivity refers to responding involuntarily to emotionally charged situations and a tendency to react impulsively to emotional cues rather than embracing the challenge of remaining calm in such situations. When not emotionally reactive, intellect can be used to guide decision making and choices are not made out of impulse. At the same time, the absence of emotional reactivity permits one to allow the experience intense emotion. An emotional reactive individual is therefore someone that can be engage equally well in emotional experience and intellectual rationality; and know when to make appropriate shifts between the two (Skowron & Friedlander, 1998). Skowron & Friedlander

further indicate that the well differentiated individual is therefore “flexible, adaptable, and better able to cope with stress” (p. 235).

Emotional Cutoff. Emotional cutoff is the opposite of fusion and refers to an individual isolating themselves and creating distance in relationships. An emotionally cutoff individual may create some form of “emotional isolation” or physical distance, or a composition of both from one’s family of origin or external relationships. Fusion is when one has an identity too largely associated with the larger group such as family of origin or significant relationships (Bowen, 1978). Both emotional cutoff and fusion are functions of someone basing their self-esteem on whether or not others approve of them, and in some way or another, conforming to the larger group (Skowron & Friedlander, 1998). If someone is emotionally fused, they may conform by becoming too focused on others and act dependently without a real sense of self.

Conformity in emotional cutoff may take the form of developing a false sense of independence and distancing oneself from intimate relationships. An individual may act as if they do not have a need for intimate and family relationships and declare their independence to others. This person however, is still emotionally attached to these relationships; they need to be close but such intimacy is too distressful (Nichols & Schwartz, 2008), and their cutoff to these relationships is nonetheless a sign of emotional reactivity. They rationalize away from their true emotions and become distant from what they might really want and need. Bowen theorized that being emotionally cutoff is fundamentally tied to individuals unsuccessfully resolving attachment with their families of origin. However, he further theorized that being emotionally cutoff can carry itself into an individual’s current and future adult relationships and become a pattern of family and external relationship interaction (Bowen, 1978). Therefore, “when tension

mounts in other intimate relationships, they will again withdraw” (Nichols & Schwartz, 2008, p.145).

The well-differentiated individual however, has the ability to be comfortable being a part of a larger group, family, or relationships. They realize the reality of their dependence on others and the loneliness of true isolation. It might be said that they can accept what Satir, Banmen, Gerber, and Gomori (1991) term as innate emotional yearnings: to be loved by others, to love others, and to love themselves. At the same time, the well-differentiated individual is not afraid to recognize their unique individuality and intellect. The emotional individual can “participate freely in the emotional sphere without the fear of becoming too fused with others” (Bowen, 1978, p. 364). They have the ability to pursue both healthy group connections as healthy perceptions of individual identity.

Without need to emotionally react or cutoff due to individual and/or group contexts, one can experience greater agency and autonomy. One can then choose their behavior rather than have their behavior dictated. The well-differentiated person still has the ability to experience “strong emotion and spontaneity”; however, they also have the ability to resist the tendency to be reactive to emotional impulses (Nichols & Schwartz, 2008). Somewhat paradoxically, while allowing for greater agency and autonomy, the ability of an individual to separate their own emotions and experience autonomy from others also allows for greater intimacy in relationships (Peleg-Popko, 2002). In high states of stress and anxiety, if individuals tend to anxiously strive towards togetherness and emotional intimacy they may ironically create more division. As individuals become more dependent in states of stress and anxiety, they may become more “intent on getting others to do things their way” (Kerr, 1988, p. 50). Kerr (1988) further postulates that this anxious pressure for one’s own needs and similar pressure felt from others

may also create a simultaneous need for distance and “emotional insulation”; leading to the possibility of both anger and frustration as well as withdrawal (Kerr, 1988, pg. 50).

An undifferentiated individual experiencing emotional reactivity or a loss of agency rational and intellectual agency may be likely to engage in parental psychologically controlling behaviors. If a parent is less able to avoid having their behavior dictated by emotional impulses, they would be more likely to be able to willfully engage in growth promoting parenting behaviors rather than self-preserving and psychologically damaging behaviors for their children. Parents who can then voluntarily respond rather than react would furthermore have less need to depend on or exploit others in managing their stress or related anxiety, or in other words, engage in parental psychological control.

Similarly, this ability to resist reaction is likely what gives the differentiated individual the ability to adapt more to stress, and would therefore make differentiation of self a key mediator in any relationship between stress and psychological control. It is postulated that low levels of differentiation in parents may antecede a parent symptomatically engaging in psychologically controlling behavior with their children and/or adolescents. They react or withdraw to meet their own emotional needs rather than focusing on what is best for themselves and the child.

It may be apparent that more literature in this review has been heavily focused on the concepts of emotionally reactivity and emotional cutoff. These two concepts of differentiation of self are used in this study in part because they have been found to be more predictive of “symptomatic distress” as opposed to other concepts of differentiation of self also included in the original measure used by this study (Skowron & Friedlander, 1998). Skowron and Friedlander, based on “sex-role socialization, self-in relation, and feminist family theories”, also indicate their

belief that there is likely a gender difference with women being more emotionally reactive and men more emotionally cutoff. This gender dynamic also provides a strength in researching parenting of heterosexual couples, as is the case in this study. Additionally, because Bowen's theory allows for emotional cutoff to become a pervasive relationship pattern for an individual, it was deemed in this study that emotional cutoff and emotional reactivity can represent two opposing sides of an "un-differentiated" spectrum.

Differentiation and Chronic Stress

Kerr and Bowen (1988) theorized that on a continuum of differentiation, people could experience physical, emotional, and social symptoms if stress was sufficiently disruptive for a given system. They further theorized that whether or not a given amount of stress would elicit such adversarial symptoms is dependent on levels of differentiation of self; "the higher the level of differentiation, however, the more stress required to trigger a symptom" (p. 97). They explain that such a stress response can create a physiological response that leads one to react. While in many situations this physiological response is an adaptation for survival, Kerr and Bowen (1988) state that if the threat of stress is not realistic and/or is simply perceived, than this can become a state of "chronic anxiety". Bowen theorized that differentiation levels have a significant negative correlation with chronic anxiety, and that low levels of differentiation would increase the amounts of chronic anxiety experienced by a family (Kerr & Bowen, 1988). Therefore, an individually is most likely either high in chronic anxiety or high in levels of differentiation, but not both at the same time. When higher levels of chronic anxiety are present rather than higher levels of differentiation, one's functioning is impaired and leaves one less able to adapt to stress (Kerr, 1988). Levels of differentiation of self then explain the relationship between chronic stress and parental psychological control. An individual's level of differentiation of self,

regardless of how high or how low, would explain any potential effects of chronic stress on parental psychological control.

Differentiation and Parental Psychological Control

Barber et al. (2002) suggested that “psychological control is a psychologically oriented, intrusive, constraining, and manipulating form of parental control in which parents maintain their own psychological status at the expense of the child’s self” (pg. 263). Stierlin (1974) has stated that parents who cognitively bind their children force them to rely on their own (the parent’s) “distorted and distorting” ego (p. 42). Barber et al. (2002) references Stierlin’s work as indicating that parents who limit and infringe psychologically upon their children may do so in effort “to satisfy their own ego deficits” (p. 276). Considering that differentiation of self is “roughly analogous to ego strength” (Nichols & Schwartz, 2008) and that low differentiation can indicate chronic anxiety affecting one’s ability to adapt to stress (Kerr, 1988) rather than react to stress; low levels of parental differentiation may in fact result in parental “ego deficits” leading to infringement (whether intended, or unintended) on the psychological world of a child. Bowen’s theory of lower levels of differentiation being positively associated with greater risk for both physical and psychological health problems has also been supported by an overview of existing research (Miller, Anderson, & Keala, 2004). This further supports the idea that differentiation of self may likely be an antecedent of a parent engaging in harmful behaviors towards their children in maintenance of their own psychological status.

Studies examining the relationship between differentiation levels of parents and parenting behaviors provide support that differentiation levels may antecede parental psychological control. Mothers’ with lower levels of differentiation of self have been found to be associated with greater potential or risk for engaging in “child maltreatment” (Skowron, Kozlowski, &

Pincus, 2010) and child abuse (Skowron, 2005). While these studies assessed risk or potential for physical child abuse, it is not unlikely that this same relationship may occur in the realms of emotional manipulation and abuse, such as with parental psychological control. An additional study has shown that lower levels of differentiation in mothers is associated with a decreased likelihood that a mother would “grant psychological autonomy” to her daughter (Glebova, 2003). It is acknowledged that parents who do not engage in psychologically controlling behavior do not necessarily engage in behaviors that foster psychological autonomy (Barber et al., 2002) and that this may also inversely be true. Nevertheless, if low levels of differentiation are associated with autonomy granting behaviors, it is possible that they may also antecede autonomy constraining behaviors; even without a direct relationship between these two parenting behaviors.

The theoretical suggestions explaining use of parental psychological control and empirical studies linking differentiation of self to parenting lend support for differentiation of self as a possible antecedent of parental psychological control. Furthermore, it may likely mediate how parents adapt to family stressors and their own psychological well-being. In the event of low levels of differentiation of self, negative psychological, emotional, and social symptoms for parents may occur. Such mal-adaptability to stress and resulting psychological and emotional distress may take the form of parental psychological control.

Differentiation and Mediation vs. Moderation

Differentiation of self is being looked at as a mediator rather than a moderator in this study. Existing research has examined differentiation of self as both a mediator (Bartle-Haring, Rosen, & Stith, 2002; Skowron, Wester, & Azen, 2004; Wei, Vogel, Ku, & Zakalik, 2005; Williamson, Sandage, & Lee, 2007) and a moderator (Bartle-Haring et al., 2002; Murdock &

Gore, 2004). Bowen's theory of differentiation of self has been described as a "big picture" theory and such "big picture theories are often difficult to empirically validate" (Bartle-Haring et al., 2002, p. 583). Kerr and Bowen (1988) theorized that the perfectly differentiated individual, while non-existent, would be best approximated by the very highly differentiated individual. They imply that the highly differentiated individual has low reactivity to stress, low chronic anxiety, and therefore has the ability to successfully adapt to most stresses. Derived then from this theoretical orientation, is the idea that perfect differentiation would eliminate all pathological outcomes of chronic stress and chronic anxiety. Therefore, differentiation is conceptualized in this study as having the ability to explain or account for the relationship between chronic stress and pathological outcome, rather than simply be an influencing or interactive variable with chronic stress affecting pathological outcome. This ability to explain or account for the relationship of a predictor and outcome variable indicates mediation (Baron & Kenny, 1986).

Summary

Parental psychological control has been shown to have adverse effects in children in terms of depression, delinquent and antisocial behavior, and other internalized disorders. However, the literature is clearly limited in its focus on the antecedents and/or predictors of parental psychological control. Some existing studies have examined child characteristics and attitudes and/or parenting practices and styles as possible antecedents of parental psychological control. However, relatively few studies have been found that examine parent characteristics as possible antecedents of psychological control. Researchers have recommended that an examination of stress and parental psychological well-being (Belsky, 1984) is an appropriate starting point in studying antecedents of parental psychological control (Barber et al., 2002). We do so by examining Bowen's differentiation of self, a measure of individual psychological

health, as a possible antecedent of parental psychological control and mediator of parental stress and parental psychologically controlling behavior.

Hypotheses

In regards to specific hypotheses, it is expected that the following relationships (parameters) will be noted in the resulting structural equation model:

- Differentiation of self will be a mediating variable between stress and levels of parental psychological control
- Chronic stress will be significantly and positively related to parental psychological control for both fathers and mothers.
- The relationship between chronic stress and parental psychological control will be reduced in significance once differentiation of self is introduced into the model as a mediating variable.
- Chronic stress will significantly and positively predict a lack of differentiation of self (both emotional reactivity and emotional cutoff) for both fathers and mothers.
- Higher levels of emotional reactivity and emotional cutoff for both fathers and mothers will predict their individual levels of parental psychological, respectively.
- Social Economic Status (family SES), parental education, and parent age will be considered possible antecedents that will be controlled for as having a possible effect on psychological control. It is expected that higher SES levels will be negatively associated with chronic stress. It is expected that parental education levels will be positively associated with levels of differentiation of self (lower levels of emotional cutoff and emotional reactivity).

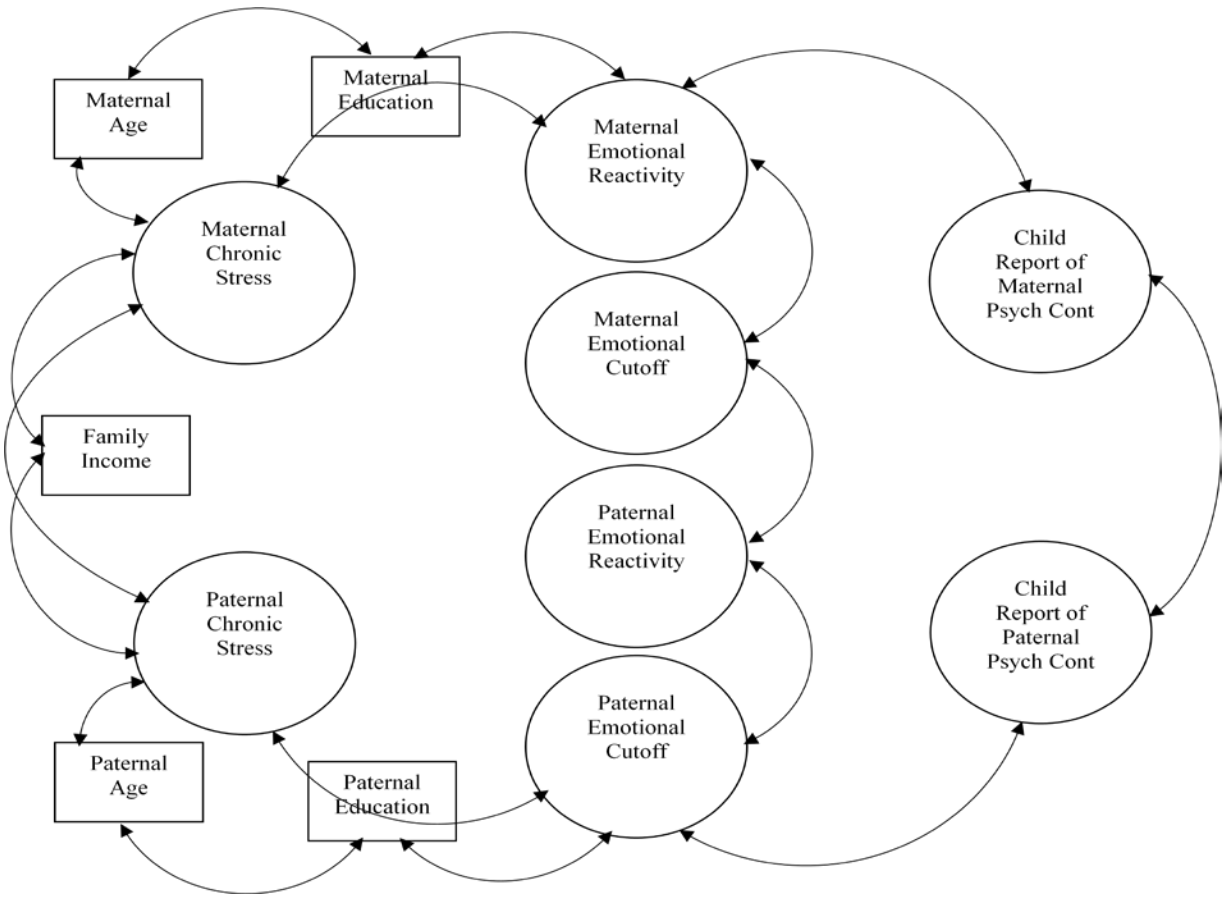


Figure 1. Full measurement model. Item indicators for latent variables and respective error variance correlations are not depicted in figure.

Chapter 2

Method

Participants

This study utilized the participants from the first wave the Flourishing Families Project (FFP). The FFP is a project being completed at Brigham Young University as continual, longitudinal research measuring the internal processes and “inner family life” of families with children between age 10 and 13. Researchers interviewed involved Families in their homes during the first 8 months of 2007. The interviews consisted of a 1 hour video as well as a 90 minute “self-administered questionnaire” (Padilla, Harper, & Bean, in press). In this current study, only data from the Wave I questionnaire administered to families were examined.

This study used 323 two-parent families consisting of a father, mother, and target child. Of the 323 children, 156 were female, 163 were male, and 4 children had missing data as to their gender. These four families were not omitted from the study being that child gender was not a focus of this study, either analytically or theoretically.

The average age of mothers was 43.49 years of age with a standard deviation of 5.268 years. Mothers’ ages ranged from 27 to 59 years. The average age of fathers was 45.28 years with a standard deviation of 5.944 years. Fathers’ ages ranged from 27 to 62 years. The average age of children in this study was 11.22 years with a standard deviation of .959 years. Children’s ages ranged from nine to 14 years.

After analyzing monthly income, .6% of families made between \$0 and \$15,000 annually, 3.1% between \$15,000 and \$30,000, 16.7% between \$30,000 and \$50,000, 57.9% between \$50,000 and \$100,000, 14.6% between \$100,000 and \$150,000, 2.8% between

\$150,000 and \$200,000, 3.4% between \$200,000 and \$500,000, and .3% made between \$500,000 and \$1,000,000 annually. Two families (.6%) had missing data for family income.

Regarding education, 1.2% of mothers never finished high school, 4.6% completed high school only, 20.7% attended some college, 3.7% completed an Associate's degree, 40.9% completed a Bachelor's degree, 21.4% completed a Master's degree, and 7.4% completed an advanced degree (JD, Ph.D., PsyD, etc). For fathers, .3% never finished high school, 6.2% completed high school only, 19.2% attended some college, 3.1% completed an Associate's degree, 39.6% completed a Bachelor's degree, 19.2% completed a Master's degree, and 11.8% completed an advanced degree (JD, Ph.D., PsyD, etc). Two fathers (.6%) had missing data or data considered unable to be interpreted for education.

Regarding ethnicity, the majority of families were European American (249, 77.1%), followed by Multi-Ethnic (57, 17.6%), African American (12, 3.7%), Asian American (4, 1.2%), and Hispanic (1, .3%). A family's categorization as being "multi-ethnic" occurred in cases when one family member differed in ethnicity from another family member's self-identified individual ethnicity.

Procedure

Participant families for the FFP were selected from a large northwestern city and were interviewed during the first eight months of 2007. Families were primarily recruited using a purchased national telephone survey database (Polk Directories/ InfoUSA). This database claims to contain 82 million households across the United States and has detailed information about each household, including presence and age of children. Families identified using the Polk Directory were selected from targeted census tracts that mirrored the socio-economic and racial stratification of reports of local school districts. All families with a child between the ages of 10

and 14 living within target census tracts were deemed eligible to participate in the FFP. Eligible families were subsequently contacted directly using a multi-stage recruitment protocol. First, a letter of introduction was sent to potentially eligible families. Second, interviewers made home visits and phone calls to confirm eligibility and willingness to participate in the study. Once eligibility and consent were established, interviewers made an appointment to come to the family's home to conduct an assessment interview.

In addition to the random selection protocol used with the survey database, families were recruited into the study through family referral. At the conclusion of their in-home interviews, families were invited to identify two additional families in the recruitment area that matched study eligibility. This type of limited-referral approach permitted us to identify eligible families in the targeted area that were found in the Polk Directory. The Polk Directory national database was generated using telephone, magazine, and internet subscription reports; therefore, families of color (especially those of lower socio-economic status) were under-represented in the database. By broadening our approach and allowing for some limited referrals, we were able to significantly increase the social-economic and ethnic diversity of the sample.

Through these recruitment protocols, a total of 692 potentially eligible families were identified within the survey database as living within the targeted census tracts. Of those, 372 were determined to have a child within the target age range. Of those, 64% agreed to participate ($n = 238$). Additionally, there were 372 families referred by participating families, 262 of whom agreed to participate (71%). The most frequent reasons cited by families for not wanting to participate in the study were lack of time and concerns about privacy. It is important to note that there were very little missing data. As interviewers collected each segment of the in-home interview, questionnaires were screened for missing answers and double marking.

Measures

Parental Psychological Control. The use of parental psychological control was assessed using the Psychological Control Scale-Youth Self Report (Barber, 1996). Respondents answered how true items were for each parent. Respondents originally responded to eight items however, after a factor loading analysis, and other structural equation model fit analyses, one item was dropped resulting in a seven item measure. The remaining seven items each had a factor loading of above .5 for both mothers and fathers. Sample items included: (a) “my parent interrupts me” and (b) “my parent will avoid looking at me when I have disappointed her/him.” Responses ranged from 1 (*never*) to 5 (*very often*) with higher scores indicating a greater degree of parental psychological control. Cronbach’s Alpha coefficient for this measure was previously was found to be .83 for mothers and fathers (Barber, 1996). Cronbach’s Alpha coefficient was found to be .856 (Child report for mothers) and .838 (Child report for fathers) for the slightly revised measure used in this research sample.

Chronic Stress. The severity of chronic stress in the parent’s lives in this study was assessed focusing on financial, parenting, work, and health-related stressors and was constructed and adapted from the chronic stress subscale of a “stress burden in adulthood” measure (Umberson, Williams, Powers, Liu, & Needham, 2005). Parents responded on a 6-point Likert-type scale ranging from 0 (*did not occur*) to 5 (*occurred, extremely severe*) and higher scores indicate higher levels of chronic stress. Initial measure in this study consisted of 10 items; however, after an analysis of the factor loadings and other structural equation modeling fit analyses, four items were kept in the measure. The four remaining items assessed a domain of parenting stress, work stress, financial stress, and physical/health stress (not getting enough sleep). All four had a factor loading .395 or higher for fathers, and .5 or higher for mothers. The

original measure reported Chronbach alpha reliability coefficients ranging from .63-.80 for applicable subscales constructing their chronic stress subscale. Reliability coefficients (Cronbach's Alpha) for the four item scale used by the sample in this study were found to be .689 (Mothers) and .631 (Fathers).

Differentiation of Self. Parent's emotions were measured based on the Differentiation of Self Inventory (Skowron & Friedlander, 1998). Initially, parents responded to 23 items based on a 6-point scale ranging from 1 (*Not at all true for me*) to 6 (*Very true for me*). Higher scores on questions 1-11 indicate the respondent perceives him/herself as having higher emotional reactivity. Higher scores on questions 12-23 indicate that the respondent perceives him/herself as having a higher level of emotional cutoff. After a factor loading analysis and other model fit analyses, six items were kept for each the emotional reactivity and emotional cutoff subscales. All questions used in this measure had a factor loading above .5. Sample questions include "I am overly sensitive to criticism", "I often wonder about the kind of impression I make", "I tend to distance myself when people get too close to me", and "independence in intimate relationships". Reliability on the original measure was found to be .88 overall, .88 for emotional reactivity, and .79 for emotional cutoff (Skowron & Friedlander, 1998). Relatively similar Cronbach's Alpha coefficients were found in this sample for the revised measure in this study (Overall: Mothers = .858 (Fathers = .866); Emotional Reactivity: Mothers = .876 (Fathers = .837); Emotional Cutoff: Mothers = .820 (Fathers = .845)).

Control Variables. In this study SES (family income), parent age, and parent education are included in the structural equation model analysis as control variables. Family income was measured as total monthly income between both parents, and parental education was measured on a scale from 1 (*Less Than High School*) to 7 (*Advanced Degree; e.g. JD, Ph.D., PsyD, etc.*),

with 2, 3, 4, and 5 indicating high school, some college, an associate's degree, a bachelor's degree, and a master's degree, respectively.

Proposed Data Analyses

Initial data analyses will include bivariate correlations among study variables and mean difference tests (T-tests) of study variables on the basis of adolescent gender. Findings from these tests, along with means and standard deviations, will be presented prior to examination of the hypothesized measurement model (see Figure 1). Using AMOS 17.0 (Arbuckle, 2008), the measurement model will be examined for goodness-of-fit and to ensure that factor loadings on observed variables are at least .40 or greater. Upon finalization of the measurement model, the hypothesized structural model will be explored (see Figure 2), examining the relationships between parental stress and psychological control, as mediated by parental differentiation-of-self.

Control variables will include family SES (family income), parent age, and parent education. In a somewhat related study that examined the association of individuation and differentiation with psychosocial development and intimacy (family connectedness), gender differences were found to be existing in "developmental patterns" (Garbarino, 1995). Measurement invariance analysis for mothers and fathers will follow the procedure reviewed and summarized by Vandenberg and Lance (2000) and set out by Bollen (1989; see also Bartle-Haring, 1997). The data for each measurement variable for both mothers and fathers will be fit in the same model. A chi-square difference test will be used to examine comparisons with additional models adding constraints. This is done by first establishing a "baseline" or unconstrained model, referred to as "hypothesis of form" or "H-form", in which all parameters are unconstrained. Using H-form as comparison, the model will be run again with the path coefficients constrained to be invariant between mothers and fathers for each measurement

variable, and the chi-squares for the two models will be compared. If the chi-square difference test is found to be significant, this indicates measurement invariance or at least partial measurement invariance between mothers and fathers. If the baseline or “H-form” model is the better fitting model, the process will be run again for measurement variables, only this time constraining indicator intercepts. Lastly, if the baseline model still is the better fitting model, the process will be run again constraining error variances for measurement variables between mothers and fathers.

Chapter 3

Results

Means and standard deviations for child reports of parental psychological control, chronic stress, differentiation of self, and study control variables (age and family income) are presented in Table 1 for mothers and fathers. Independent sample t-tests were conducted to evaluate significance levels in variable differences between mothers and fathers. There was no significant difference in means of psychological control, chronic stress, or levels of education between mothers and fathers. Differentiation levels between mothers and fathers however did show a significant difference. Similar to Skowron and Friedlander's (1998) predictions on gender differences, there was a significant difference between maternal and paternal levels of emotional reactivity, $t(644) = 4.873, p < .001$, with mothers being more emotionally reactive ($M = 3.577$) than fathers ($M = 3.173$). Also as expected per Skowron and Friedlander's predictions, there was a significant difference between maternal and paternal levels of emotional cutoff, $t(644) = -2.037, p < .05$, with fathers being more emotionally cutoff ($M = 2.135$) than mothers ($M = 1.991$). There was also a significant difference between maternal and paternal age in this sample, $t(644) = -4.07, p < .001$, with fathers ($M = 45.285$) being slightly older than mothers ($M = 43.486$). Additionally, mean monthly family income for this sample was relatively large ($M = \$7071, SD = \5415).

Bivariate correlations were also run for the continuous variables regarding mothers and fathers, and family income in this study (Table 2). Maternal psychological control (MPC) was highly correlated with paternal psychological control (PPC), $r(323) = .814, p < .01$, indicating that maternal and paternal psychological control co-occur at very similar levels. MPC was also correlated at lower levels with maternal chronic stress (MCS), $r(323) = .186, p < .01$, and

paternal chronic stress (PCS), $r(323) = .147$, $p < .01$. MPC also had a low level correlation with maternal emotional cutoff (MEC), $r(323) = .131$, $p < .05$.

Paternal psychological control was also significantly correlated at lower levels with maternal, $r(323) = .168$, $p < .01$, and paternal chronic stress, $r(323) = .189$, $p < .01$, and maternal emotional cutoff, $r(323) = .150$, $p < .01$. MCS had a significant bivariate correlation with maternal emotional reactivity, $r(323) = .228$, $p < .01$, and maternal emotional cutoff, $r(323) = .181$, $p < .01$. MCS was also correlated with paternal emotional reactivity, $r(323) = .169$, $p < .01$, and paternal emotional cutoff, $r(323) = .163$, $p < .01$. MCS was correlated at low levels with study variables, other than its' larger level correlation with PCS, $r(323) = .413$, $p < .01$. PCS was significantly correlated with paternal emotional reactivity, $r(323) = .28$, $p < .01$, and paternal emotional cutoff, $r(323) = .271$, $p < .01$. PCS was also correlated maternal emotional reactivity, $r(323) = .136$, $p < .01$, and maternal emotional cutoff, $r(323) = .134$, $p < .01$. PCS was furthermore correlated with all other study variables, except for family income.

Maternal and Paternal education were both significantly correlated at low levels with maternal and paternal psychological control, maternal chronic stress, paternal emotional reactivity, maternal and paternal age, and each others' education levels. Additionally, parental education was significantly correlated with family income at a more meaningful level; paternal education having a very slightly higher correlation with family income than did maternal education. In addition to maternal and paternal education, maternal and paternal ages were correlated with each other, both their own and each others' chronic stress and education levels, and family income. In addition to both paternal age and education, family income was found to be correlated with maternal reports of chronic stress.

Measurement Invariance

In this study, before testing structural paths, measurement invariance was tested to assess measurement equivalence. Regarding measurement invariance, Vandenberg and Lance (2000) have stated that:

demonstration of measurement equivalence is a logical prerequisite to the evaluation of substantive hypotheses group differences, regardless of whether the comparison is as simple as between-group mean differences test or as complex as testing whether some theoretical structural model is invariant across groups. (p. 9)

In this study, group comparisons for measurements across gender groups (mothers and fathers) rather than between groups will be examined. Vandenberg and Lance (2000) have also indicated testing for measurement invariance is a widely under-used practice; although very “routinely and straightforwardly testable” (p. 6). They further explain that without testing for measurement invariance, “violations to measurement equivalence assumptions are as threatening to substantive interpretations as is an inability to demonstrate reliability and validity” (p. 6). Therefore, in order to assess for the viability of the findings in our structural model, as well as their interpretations, measurement invariance was first tested across gender (across measures for mothers and fathers). Additionally, testing for measurement invariance can help explain alterations of the Chi-square statistic being evaluated for overall model fit (Vandenberg & Lance, 2000) and can help increase the overall model fit.

Variables in this study were tested across parental gender to determine possible measurement invariance for each specific measure. This was done in the measurement model portion of the analysis before a structural path analysis was run. Initially, the factor loadings between all study latent variables and their specific item indicators were constrained to be equal to each other across parental gender. Using a chi-square difference test (Vandenberg & Lance,

2000), $X^2(19, N = 323) = 26.39, p < .05$, results showed that the constrained model was not a better fit than the initial unconstrained model, indicating measurement variance between study variables for gender. However, due to the size of this model and amount of study variables included, it was difficult to know if there was actually measurement variance between all maternal and paternal study variables, or if there still may be measurement invariance between specific individual study variables. Therefore, all study variables were tested in the same fashion individually. Chronic stress factor loadings from latent variables to indicators were constrained across genders this model was then compared to the initial unconstrained model by the use of a chi square significance test. Upon results of this test, $X^2(3, N = 323) = 11.2, p < .05$, it was determined that there is measurement variance with regard to chronic stress between mothers and fathers. Therefore, no constraints were used between maternal and paternal chronic stress in the measurement (or structural) model. This finding will be important when considering findings in the structural model. Any significant path findings in the structural model could possibly be due to such measurement variance between maternal and paternal chronic stress.

Children's reports of parent psychological control across mothers and fathers were also tested for measurement invariance. Again, factor loading regression weights between latent variables and item indicators were constrained to be equal between maternal and paternal psychological control. Using a chi-square difference test for comparison, $X^2(6, N = 323) = 8.899, p < .05$, the null hypothesis cannot be rejected. Therefore, it was found that with respect to children's reports of parental psychological control; there is at least partial measurement invariance. Intercepts of item indicators in addition to the factor loading regression weights of children's reports psychological control between fathers and mothers were then constrained to be equal. After a chi-square significance test, $X^2(13, N = 323) = 26.186, p < .05$, it was concluded

that constraining intercepts did not help model fit and indicated that with respect to parental psychological control, there was indeed partial, but not full, measurement invariance. No further tests for measurement in this variable were run. Only factor loading regression weights between maternal and paternal psychological control latent variables and their indicators were left constrained in the measurement (and structural) model.

Subscales of differentiation of self were also tested for gender measurement invariance between mothers and fathers. Factor loading regression weights for mothers' and fathers' emotional reactivity were constrained to be equal and a chi-square difference test was used for comparison, $X^2(5, N = 323) = 2.497, p < .05$. To further find out whether emotional reactivity has full gender measurement invariance or partial measurement invariance, indicator intercepts in addition to factor loading regression weights were also constrained and a chi-square difference test was again used to compare the constrained and unconstrained models, $X^2(11, N = 323) = 54.621, p < .01$. Therefore, the model with only factor loading regression weights constrained was chosen as the best fitting model for emotional reactivity, and partial gender measurement invariance was construed. Regarding comparison analysis for measurement invariance with emotional cutoff between mothers and fathers, factor loading regression weights were again constrained and a chi-square difference test used for comparison, $X^2(5, N = 323) = 3.748, p < .05$. This indicates at least partial measurement invariance for emotional cutoff between mothers and fathers. Item indicator intercepts were then constrained in addition to factor loading regression weights for emotional cutoff and constrained and unconstrained models were compared with a chi-square difference test, $X^2(11, N = 323) = 26.745, p < .01$. Therefore, for emotional cutoff, a model with factor loading regression weights constrained between mothers and fathers is considered having the best fit. Emotional cutoff also appears to have partial, rather

than full, measurement invariance.

Therefore, after a measurement invariance analysis, a parsimonious measurement model that constrains factor loading regression weights between the latent variables of psychological control, emotional reactivity, and emotional cutoff between fathers and mothers and their individual indicators was constructed (Figure 1). The factor loading regression weights for maternal and paternal chronic stress variables in this model were left unconstrained. This measurement model was utilized for further structural analysis (Figures 2 and 3).

In summary, our measurement of chronic stress appears to vary across mothers and fathers. It appears that there is only partial gender measurement invariance for psychological control, emotional reactivity, and emotional cutoff between mothers and fathers. Therefore, particularly with chronic stress and partially with psychological control and subscales of differentiation of self, significant findings in the structural model may be in full or in part due to measurement variance.

Measurement Model Analysis

In the initial model in this study (Figure 1), latent variables for chronic stress and parental psychological control were examined and evaluated to ensure parsimony based on factor loadings and other model fit procedures and analyses. For parental psychological control, one of the items from the original eight item measure was dropped after a factor loading analysis. The remaining seven items each had a factor loading above .5. Error variances of two item indicators for parental psychological control were correlated; both addressed aspects of poor communication between parent and child. The error variances for three more item indicators addressing similar conceptualizations of child-reported coercion were also inter-correlated. All

error variances for item indicators of parental psychological control were inter-correlated between mothers and fathers.

Four items from the original 10 item measure for chronic stress were retained after a factor loading analysis; the remaining items assessed each assessed a different domain of parenting stress, work stress, financial stress, and physical/health stress (not getting enough sleep). Parenting, work, and financial stress have all been domains of measuring chronic stress in other studies examining sociological stress and mental health (Turner, Wheaton, & Lloyd, 1995). Wheaton (1991) (as cited in Wheaton 1994) and Wheaton (1994) indicate that while such domains of chronic stress are clearly subjective reports rather than objective measures, they may be more effective at measuring chronic stresses in life than would be more objective attempts. While sleep was not part of Turner et al.'s (1995) subjective stress measures, sleep deprivation has been associated with negative health (Patel et al., 2008; Vgontzas, Liao, Bixler, Chrousos, & Vela-Bueno, 2009), and also has effects on behavioral (Banks & Dinges, 2007) and executive and cognitive functioning (Guoping, Kan, Danmin, & Fuen, 2008; Thomas et al., 2000), "Health-related stress" was also a component in another measure of "ongoing" or chronic stress in a study tracking longitudinal effects of stress on marital quality (Umberson et al., 2005, p. 1337). All four had a factor loading of .4 or higher for fathers, and .5 or higher for mothers. Error variances of item indicators of chronic stress were inter-correlated between mothers and fathers.

For differentiation of self, six items were retained for each subscale (emotional reactivity and emotional cutoff) after a factor loading analysis. The original measure contained 23 items (11 items assessing emotional reactivity 12 items assessing emotional cutoff). However, remaining items were able to retain a recognizable conceptual basis of the construct. All questions used in the revised measure for this study had a factor loading above .5. With regards

to emotional reactivity, the error variances for two items addressing emotional sensitivity were correlated as were the error variances of two items measuring a similar concept of moving on from emotional distress. For emotional cutoff, the error variances of three items with similar conceptualizations of discomfort with emotional intimacy were inter-correlated. Additionally, the error variances were inter-correlated for two items conceptualizing over-dependency. All of the error variances of item indicators for both emotional reactivity and emotional cutoff were inter-correlated between mothers and fathers.

Control variables of maternal and paternal age, maternal and paternal education, and family income were also included in the full measurement model and correlated with all other exogenous variables in the model. To further strengthen model fit and parsimony, factor loading regression weights of parental psychological control, emotional reactivity, and emotional cutoff were constrained to be equal to each other (for mothers and fathers) in the measurement model (see measurement invariance section). Fit indices met professional standards for structural equation modeling. The Chi-square statistic was found to be significant, $X^2(1124, N = 323) = 1660.2, p < .001$. While a significant X^2 statistic may be indicative of poor model fit; this statistic has been shown to be more circumspect with larger sample sizes (Hoyle & Panter, 1995; Hu & Bentler, 1995) and can also be a result of “only minor differences in between group factor patterns” (Vandenberg & Lance, 2000) as this study has. The minimum sample discrepancy divided by the degrees of freedom (CMIN/DF) is 1.477, another indicator of reasonable model fit, as values between 1 and 2/3 are within the acceptable range (Carmines & McIver, 1981). The Tucker-Lewis coefficient (TLI) is .925, above the .9 professional cutoff (Bentler & Bonett, 1980), and the comparative fit index (CFI) (Bentler, 1990) is .936, above the .9 professional minimum. The root mean square error of approximation (RMSEA) is .038, meeting the

professional standard of being below .05 (Browne & Cudeck, 1992). Overall, this model was considered a valid model for testing the relationship between chronic stress, differentiation of self, and parent psychological control. Fit indices all at or below respective acceptable professional cutoffs and standards.

Path Analyses

Using the previously described measurement model along with constraints informed by measurement invariance analysis, one path model was created for chronic stress and psychological control (Figure 2), and another was created with the differentiation of self subscales included as mediating variables (Figure 3). For both models, all exogenous variables (including control variables) remained correlated with one another. Error variances of parental psychological control latent variables were also correlated between mothers and fathers in these path models. Due to the nature of differentiation of self and the potential for both reciprocal and opposite interaction between fathers and mothers, error variances of emotional reactivity and emotional cutoff latent variables were all inter-correlated between fathers and mothers. Also being subscales for an overall concept of differentiation of self, error variances of emotional reactivity and emotional cutoff were correlated within individuals (mothers and fathers).

In the model tested in Figure 2, only fathers' levels of chronic stress were significantly associated with fathers' own levels of parental psychological control, and this parameter estimate was relatively small (.148, $p < .05$). This indicates that as fathers' levels of chronic stress increased there was also a slight increase in reports of their use of psychological control. All other relationships between fathers and mothers chronic stress levels and their use of parental psychological control were not significant. This finding does not generally support the possibility of differentiation of self as a mediating variable; being that there is not an initial strong

relationship between chronic stress and parental psychological control. However, given our previous analysis, this significant finding could be fully or partially or fully due to measurement invariance. Further implications of our measure for chronic stress will also be discussed.

In the path analysis including emotional reactivity and emotional cutoff subscales for differentiation of self, the relationship between chronic stress and parental psychological control remained more or less the same; only fathers' reported chronic stress had a significant relationship to fathers' level of parental psychological control (.152, $p < .05$). This finding is another indication that differentiation of self, when included in the model, does not appear to serve a mediating role between chronic stress and parental psychological control. Differentiation of self seemed to have potentially a small suppression effect on the relation between paternal chronic stress and paternal psychological control however, but given the very minimal increase (.004) between the two models, differentiation of self is not considered a suppressor variable.

Chronic stress levels, however, did significantly predict levels of differentiation of self for fathers and mothers. For fathers, their own levels of chronic stress significantly predicted their emotional reactivity (.420, $p < .001$) and emotional cutoff (.361, $p < .001$). Mothers' levels of chronic stress predicted their own levels of emotional reactivity (.460, $p < .001$) and emotional cutoff (.281, $p < .01$) as well. This indicates that higher levels of chronic stress for both fathers and mothers predicted substantially higher levels of their own respective emotional reactivity and emotional cutoff. Neither mothers' nor fathers' own reports of chronic stress predicted their partner's emotional reactivity and emotional cutoff. These path analysis findings however, may also be fully or partially influenced by the fact that we have full measurement variance between fathers' and mothers' chronic stress and only partial measurement invariance for both sub-measures of differentiation of self.

Interestingly, maternal emotional cutoff significantly predicted paternal levels of psychological control; albeit a relatively small effect (.117, $p < .05$). Additionally, fathers emotional reactivity negatively, but significantly, predicted maternal use of psychological control (-.124, $p < .05$). With chronic stress significantly impacting parental levels of differentiation of self, and aspects of differentiation of self significantly predicting partners' use of psychological control, it appears that differentiation of self has a systemic indirect effect rather than a mediating effect in this model. Using a Sobel's test, the indirect effect of maternal emotional cutoff on the relationship between maternal stress and paternal parental psychological control was found to be significant, $\beta = 1.703$, $p < .05$ (one-tailed). Using this same test, the indirect effect of paternal emotional reactivity on the relationship between paternal stress and maternal psychological control was also significant, $\beta = -1.819$, $p < .05$ (one-tailed). It appears that the more emotionally cutoff a mother is, the greater her husband uses psychological control; however, the more emotionally reactive a father is, the less his wife will engage in parental psychological control. Chronic stress therefore only effects levels of parental psychological control indirectly through parental levels of differentiation of self. No other relationships between paternal and maternal emotional reactivity or emotional cutoff and paternal and maternal psychological control were found to be significant. However, mothers' emotional cutoff did predict their use of psychological control at a trend level (.105, $p = .061$), although it was not significant. As previously mentioned, both differentiation of self sub-measures and parental psychological control for both mothers and fathers had only partial measurement invariance, which could have some influence on the findings of this structural path model. The measurement properties will be further discussed in more detail.

Control Variables

Control variables of parent education, parent age, and family income were also included in both the measurement model and path models. In the basic structural model (Figure 2), paternal education predicted lower levels of maternal psychological control ($-.058, p < .05$). Paternal education also predicted lower levels of their own parental psychological control at a trend level ($-.045, p = .061$). Therefore, the more educated a father is, the less we would expect mothers and fathers to be psychologically controlling; a finding expected in this study. This is a very small effect given the small parameter estimates. Parent age and family income were not significantly predictive of parental psychological control in this initial model.

In the structural model including parents' levels of differentiation of self (Figure 4), paternal education was found to significantly predict both maternal ($.088, p < .05$) and paternal ($.082, p < .05$) levels of emotional reactivity. This indicates that the higher a fathers' education, the more mothers and fathers are likely to be emotionally reactive. Although these relationships have small parameter estimates, this is a finding unexpected in this study. In contrast to the structural model not including differentiation as a mediator (Figure 2), paternal education no longer significantly predicted levels or parental psychological control for either parent. Therefore, emotional reactivity appears to act as a mediating variable between paternal education and maternal and paternal levels of psychological control. Maternal age in this model significantly predicted paternal emotional cutoff, although the parameter estimate is of almost no substantial effect ($.028, p < .05$). Therefore, the older a mother is, the more a father would be expected to be emotionally reactive, although ever so slightly. Paternal or maternal age was not significantly predictive of any other endogenous variables in the model; although maternal age also predicted maternal emotional reactivity at only a trend level ($.025, p = .091$).

Overall, no control variables had either a strong effect or significant effect on the

endogenous variables (emotional reactivity, emotional cutoff, and parental psychological control) in this model. Parent education seemed to have the strongest influence on psychological control in the structural model including only chronic stress and parental psychological control along with control variables. Parent education also seemed to have the strongest effect in the model including parents' levels of differentiation of self; specifically on emotional reactivity for mothers and fathers. In this latter model, emotional reactivity for both parents appeared to mediate the relationship between education and parental psychological control. However, the direction of this mediation is unexpected and the theoretical base, unknown.

Chapter 4

Discussion

In this study, some support for Bowen's theory of stress and differentiation was found, although some specific hypotheses were not supported. This study also adds important considerations to literature on parental psychological control and its possible antecedents. Initial correlations supported our hypothesis that stress might lead to higher levels of parental psychological control. Paternal psychological control was also significantly correlated at lower levels with maternal and paternal chronic stress and maternal emotional cutoff; again supporting Bowen's theory of stress, differentiation, and pathological outcome. Additionally, the slight correlation between maternal psychological control and maternal emotional cutoff (MEC), $p(123) = .131$, $p < .05$ added some support the idea that a mothers' level of differentiation of self may affect the relationship between chronic stress and psychological control. Differentiation of self does not appear to mediate the relationship between chronic stress and parental psychological control. This is in part due to a lack of support of the hypothesis that chronic stress would be significantly and positively related to parental psychological control. Only fathers' reports of chronic stress predicted levels of their own psychological control. This relationship between fathers' stress and parental psychological control remained practically unchanged when differentiation of self was added into the model as a mediating variable. The full measurement variance in our chronic stress measure for mothers and fathers may be influencing these results. Perhaps with a more consistent and unvarying measure for chronic stress, the relationship between chronic stress and parental psychological control may be different – for mothers as well as fathers. Additionally, means in reports of chronic stress for both mothers and fathers were relatively low, and could have impacted the relationship between chronic stress and parental

psychological control.

Findings did however lend support to Bowen's theory. While differentiation of self does not act as a mediating variable, it appears in this study that differentiation of self serves as an indirect link between chronic stress and parental psychological control. Both maternal and paternal levels of chronic stress significantly predicted maternal and paternal levels of emotional reactivity and emotional cutoff, respectively. This lends support to Kerr and Bowen's (1988) theory that higher levels stress creating higher levels of chronic anxiety relate to lower levels of differentiation of self. In this study, both mothers and fathers were more emotionally reactive and cutoff as chronic stress levels increased. Paternal emotional reactivity and maternal levels of emotional cutoff were in turn predictive of their partners' levels of parental psychological control. Thus chronic stress impacted levels of parental psychological control indirectly through levels of differentiation of self.

It is interesting that in this model including both mothers and fathers, differentiation levels of one spouse predicted the levels of psychological control for the other. This is an alteration from the hypothesis that differentiation levels would predict the individual's own level of psychological control. The explanation for this pattern is not clear; however, these findings show the truly systemic nature of family relationships and the interaction between an individual and the group environment.

Perhaps a concept further addressed in Bowen theory, triangulation, may be a starting place to speculate on explanation of these findings. Triangulation is when a parent, or any individual for that matter, pulls in a third party or outsider to help contain or manage the anxiety that the relationship system is experiencing (Kerr & Bowen, 1988; Kerr, 1988). In terms of a marital or parental dyad, one or both parents may triangulate a child in response to a stress

between the dyadic couple. It may be possible that such triangulation may take the form of parental psychological control. This makes sense given Barber's (2002) indication, when referencing the work of Sterlin (1974), that parents who are psychologically limiting and infringing upon their children may do so in effort "to satisfy their own ego deficits" (p. 276). If a father or mother does not have a healthy ego or differentiation of self either due to or simultaneous with stress and anxiety in a romantic and parenting partner relationship, perhaps psychologically controlling a child would then manage their own unmet psychological needs.

Perhaps literature in the field of relationship attachment can provide further support and interpretation for how such triangulation might occur. Mothers, on average in this study, had significantly higher levels of emotional reactivity than did fathers. Fathers on the other hand, showed a higher mean of emotional cutoff than did mothers (Table 1). This resembles studies that have found women to be more anxious, preoccupied, and ambivalent and men to be more dismissing and avoidant – in attachment styles in middle childhood (Del Giudice, 2008; Finnegan & Hodges, 1996; Granot & Mayseless, 2001; Markiewicz, 2003) and adolescence and adulthood (Bartholomew & Horowitz, 1991; Brassard, Shaver, & Lussier, 2007; Schmitt, 2003). However, some studies have found no gender differences in attachment styles (Feeney & Noller, 1990; Gentzler & Kerns, 2004; Hazan & Shaver, 1987; Jang, Smith, & Levine, 2002; Shi, 2003), and one study found women to be more avoidant and men to be more anxious (Kerns, Abraham, Schlegelmilch, & Morgan, 2007). Anxious and avoidant attachment are theoretically similar to emotionally reactivity and emotional cutoff (with regards to low differentiation of self), respectively.

So how might a female engaging in more emotional cutoff and a male engaging in reactivity, contrary to the general gender stereotypes, result in greater psychological control in

the other partner? One study explains why it would be more likely that women adapt an avoidant attachment style instead of a pre-occupied or anxious style (Chen & Li, 2009). These authors argue that if females are in an insecure environment [where their needs are not being met] and resources are scarce, they will adapt with a more aggressive avoidant style in competition for resources. It has further been found that when it comes to aggression, young girls tend to exhibit more relational aggression whereas young boys engage more in physical and verbal aggression (Crick & Grotpeter, 1995). Perhaps these trends in aggression carry into adulthood as well. Furthermore, behaviors of parental psychological control have been said to “closely resemble” those of relational aggression (Nelson & Crick, 2002).

Considering this information on attachment style, imagine a mother in a relationship or environment where her needs were not being met either by her husband (the father) or some other means and her husband is emotionally cutoff (assuming low differentiation of self), as is more common in men. A traditional style of emotional reactivity may not be producing the needed or desired results for this mother, and she may move to a more emotionally cutoff, relationally aggressive or psychologically controlling attempt to try and secure her environment and to change the unsatisfactory system. This change or shift would create stress on the system that would alter the homeostatic state. This change in system dynamics may then result in her husband responding with emotional reactivity, verbal and/or physical aggression, rather than remaining cutoff (emotional engagement by her husband may have been what the mother/wife consciously or unconsciously desired). As with a change in reaction by the mother, his attempt to defend his unmet or threatened needs may also be accompanied psychologically controlling behaviors with his children. Thus, in situations of low differentiation, psychological control

towards children may be related more to an attempt to fulfill unmet needs or even as a response to the pressure felt of stress changing a system.

Being that a system is made up of many parts operating simultaneously, this cycle just described could also be discussed in the opposite direction. A father, who by gender is stereotypically emotionally cutoff, may tire of unmet needs or expectations. He may then do something different to disrupt the family system, such as become more emotionally reactive in an attempt to get his needs met. In response, the mother in this parental dyad may systemically react to keep the family system at a status quo by becoming more emotionally cutoff and engage in relationally aggressive and psychologically controlling behaviors. Perhaps during this stress of changing roles or positions a mother might engage in psychological control with a child in attempt to pull in a third party to help manage the stress and anxiety, as previously discussed.

This description of triangulation, a child being pulled into a marital or parental relationship by means of parental psychological control, is speculative and theoretical and does not empirically provide an answer to the perplexing question posed by the findings of this study. Nevertheless, this theory provides further grounds for the understanding and evaluation of Bowen's theory of stress and differentiation of self as context for parental psychological control. Additionally, assuming that adult women also engage in more relationally aggressive behaviors for survival as has been found with young girls (Crick & Grotpeter, 1995), this theory might help explain the majority of studies linking mothers to greater use of psychological control (as summarized in Barber et al., 2002). With further consideration given to this theory however, it might be asked why parents' low differentiation of self did not predict their own use of psychological control. In this study, emotional cutoff for mothers nearly did predict their use of maternal psychological control (.105, $p = .061$) at a trend level, and with a stronger measure for

both differentiation and stress the findings may tell another story. Fathers' emotional reactivity did not nearly predict their own levels of psychological control; however, this would be expected if their aggressiveness truly does take a verbal and physical form as opposed to a relational one.

That differentiation of self was not found to mediate the relationship between chronic stress and parental psychological control in this study does not fully invalidate such a theory of mediation. First, as well be discussed in further detail, it might prove beneficial to replicate this study using new measures for both chronic stress and differentiation of self. Although at low levels, maternal and paternal chronic stress did correlate maternal and paternal levels of parental psychological control. This revealed more links between chronic stress and parental psychological control than did the structural path model. Second, it is not fully clear theoretically whether differentiation of self is a mediating or moderating variable. It has previously been used as both a mediating (Bartle-Haring et al., 2002; Skowron et al., 2004; Wei, Vogel, Ku, & Zakalik, 2005; Williamson et al., 2007) and moderating (Bartle-Haring et al., 2002; Murdock & Gore, 2004) variable. Perhaps a study examining differentiation of self as a moderating variable between stress and parental psychological control may help provide more understanding. Third, the theoretical relationship between differentiation of self and stress is not that clear as far as which variable mediates or moderates. One study found chronic stress to mediate the relationship between differentiation of self and "social problem solving" (Knauth, Skowron, & Escobar, 2006). It has further been stated that a longitudinal study would be necessary to find out more about the "reciprocal relationship between differentiation of self and stress" (Bartle-Haring et al., 2002). Therefore, either a replication of this study with stress as the mediating/moderating variable or a longitudinal analysis on stress and differentiation of self may prove beneficial.

Other findings in this study also merit discussion. That there is no significant difference between fathers and mothers mean levels of psychological control is interesting, being that studies that have examined parental gender differences in psychological control have most often found mothers to exhibit higher levels of psychological control (Barber et al., 2002). This also does not lend support to the previous theoretical discussion of relational aggression vs. physical and verbal aggression between women and men, respectively. However, one study has found fathers to exhibit higher levels of parental psychological control (Nelson & Crick, 2002) while others have found fathers to be more authoritarian in parenting (Robinson & And, 1996) as measured by concepts similar to those of psychological control. There was a high correlation between paternal and maternal levels of parental psychological control in this study, which does support the idea of family systemic interaction. There was no significant difference between maternal and paternal reports of chronic stress. From a systemic perspective, it would be expected that the same level of stress for one partner will either directly or indirectly affect their spouse as well. Additionally, the relatively low amounts of stress reported in this sample could also be in part, due to the relatively high reports of monthly income. Previous research has used financial strain as a measure for chronic stress (Hall et al., 2008; Steptoe, Brydon, & Kunz-Ebrecht, 2005), and financial strain has been found to be reported as an aspect of chronic stress that is most worried about in comparison with other aspects of chronic stress (Grulke et al., 2006). Family income was significantly negatively correlated with levels of maternal chronic stress in this study; although not to a large degree (.117, $p < .05$), this offers partial support to the initial hypothesis presented on the relationship between SES and chronic stress.

No control variables seemed to have a theoretically large and/or significant impact on this study. Paternal education appeared to have a slight significant impact on levels of parental

psychological control; parameter estimates were relatively small. However, when emotional reactivity for both parents was added to the model, paternal education predicted levels of emotional reactivity and no longer predicted parental psychological control. Therefore, emotional reactivity appears to have some mediating effect in the relationship between parental education and parental psychological control. This could be explained with a hypothesis that higher levels of education lead to higher levels of differentiation of self; being that education may expand the use of intellect and affect the balance between emotion and intellect. However, in this study paternal education predicted higher rather than lower levels of emotional reactivity for both fathers and mothers; a finding contrary to the hypothesis initially given. This could be a function of measurement variance or some other limitation in this study, but no formal explanation can be given.

Clinical Implications

This study shows the importance of the couple and family system when intervening clinically. A clinician should not look exclusively at individual factors, but should assess systemic interactions that may be influencing individual symptomatic behavior. It could be that relationship between a husband and a wife is influencing the use of psychological control in parenting their children. It could be that there are other possible outside stressors that are a catalyst to emotional reactivity, cutoff, and the use of psychological control. Given the indirect effect of differentiation of self between chronic stress and parental psychological control found in this study, interventions aimed at increasing resources and stress reduction should increase a parents' functional level of differentiation of self. A "functional level" of differentiation of self is more flexible in nature, and will depend on relationship context and processes (Kerr & Bowen, 1988). Therefore, a parent's functional level in parenting (less psychologically controlling

behaviors) their children should increase indirectly through higher levels of differentiation of self in their partner with reduction of stress. Or in the case of fathers, levels of parental psychological control may be reduced simply by providing resources that reduce stress levels.

For more lasting and permanent change however, a clinician can focus intervention on a clients' basic level of differentiation. Kerr and Bowen (1988) state that basic level of differentiation refers to the "degree of emotional separation a person achieves from his family of origin" and also involves a "multi-generational emotional process" (p. 98). They further indicate that basic levels of differentiation develop by adolescence and tend to be less flexible; they tend to be more permanent over the life course. However, they do state that "unusual life experiences or a structured effort" can have an influential effect on changing basic levels. They share that differentiation is brought about by doing; nevertheless, is more a function of being. Increasing a parent's level of differentiation between emotion and cognition, them and their family of origin, and/or in other specific aspects can change relation can have a positive influence. This may change relationships between individual emotion, thought, and behavior as well as lead to important change in the structure and process of a family system. Perhaps through creating experiences in therapy where the deeper feelings and the experience of the client (parents) are present will lead to an ability to influence change in basic levels of differentiation. The client can then "open himself up to his [or her] experience, embrace it, take a friendly stance towards it, beckon it to teach him" (Friedman, 1976). It would be in the midst of current experience that a client might be able to learn to balance both what they are feeling and how to choose their desired course of action in response.

This may be contrary to previous and impulsive reactive and cutoff/withdrawal responses. In essence, it could be said that that you tap into individual agency for the client rather

than him/her feeling as a victim of a larger system, whether it be emotional or organizational. Family systems are believed to contain “feedback loops” and communication behavior linked in additive chains of stimulus and response (Nichols & Schwartz, 2008, p. 52). By changing differentiation levels in one or both spouses, hopefully negative chains of reactive and cutoff response can be broken down, altered, and/or reconstructed. Perhaps this could lead to less parental psychological control in one or both spouses due to these changes in system dynamics. However, in the event that basic levels of differentiation do not change; the mere experience and awareness gained in such a clinical setting can be beneficial. As clients explore their experience with family of origin and intergenerational influences as well current emotions and how they are responding to them, they can learn ways to manage even un-fluctuating levels of differentiation.

Hopefully, such clinical interventions could improve both individual and system well-being, and either directly or indirectly lead to lower levels of parental psychological control in parenting. This in turn may also reduce many various forms of internalized problems (Barber & Harmon, 2002; Barber et al., 1994; Bean et al., 2003; Leonardi & Kiosseoglou, 2002) and externalized problems (Kuppens et al., 2009; Pettit et al., 2001; Torrente & Vazsonyi, 2008) associated with parental psychological control in youth and adolescents.

Limitations and Future Directions

The findings of either no or only partial measurement invariance between study variables for mothers and fathers in this study puts a limitation on the validity of the structural findings in this study. The significant chi-square statistic achieved in the measurement model could be a result of “only minor differences in between group factor patterns” (Vandenberg & Lance, 2000). However, it could also be the result of a sample (N = 323) not large enough to ignore a significant chi-square statistic, which has in some literature been said to start around 800

participants (Hoyle & Panter, 1995; Hu & Bentler, 1995). It would be expected that with stronger measures for chronic stress and differentiation of self model fit would improve. Additionally, more statistically significant relationships between study variables may result in addition to those found in this study. The measure for chronic stress in this study did not prove to have any measurement invariance between mothers and fathers. The measure used for differentiation of self brought concern when only six items (emotional reactivity and emotional cutoff) seemed to measure each of these constructs after a factor analysis. This is significantly reduced from the 11 item emotional reactivity scale and 12 item emotional cutoff scale of the original measure (Skowron & Friedlander, 1998) from which the measure in this study was adapted. Both differentiation of self subscales of emotional reactivity and emotional cutoff also only had partial measurement invariance.

While a measure for differentiation of self that fit well with the model was difficult to construct, the condensed measure constructed in this study is hoped to be adequate enough to provide preliminary testing of the theoretical hypotheses under examination. Findings in this study indicate a need for a more developed and universal measure of differentiation that will lead to better understanding its relationship with chronic stress and parental psychological control. Differentiation has been conceptualized by the literature in different ways. Some studies have used the concept of differentiation as referring to the balance of separateness and connectedness at the individual level (Bartle-Haring & Gregory, 2003; Skowron et al., 2010). These studies further indicated that healthy levels of differentiation also indicated a healthy balance between cognitive processes and emotion (Skowron et al., 2010) and the ability to be able to maintain boundaries and have choice over a course of action in intense emotional situations (Bartle-Haring & Gregory, 2003). Other studies however, have delineated differentiation of self as a

construct for how distance (connectedness vs. autonomy) is regulated at the family level while “individuation” is more the individual process of becoming autonomous while at the same time balancing being part of a group (Allison & Sabatelli, 1988; Anderson & Sabatelli, 1990; Gavazzi & Sabatelli, 1990). Regarding this latter approach, Stierlin, Levi, & Savard (1971) discuss and review the differences between “separation-inducing” and “separation-inhibiting” perceptions of parents (p. 415). They state that separation inducing perceptions refer to levels of confidence parents have in their children’s ability to develop towards separateness and autonomy and can affect the separation process. They state that separation inhibiting perceptions on the other hand, “convey a lack of such confidence” (p. 416). Such parental perceptions have been likened to the family systemic level of differentiation or distance regulation which influences individuation at the individual level (Gavazzi & Sabatelli, 1990).

Kerr and Bowen (1988) state that “there are so many facets to the concept of differentiation that it can be approached in numerous ways” (p. 89). Kerr and Bowen discuss an aspect of differentiation of self as the balance between emotion and cognition/intellect, an individual’s emotional interdependence and how it affects their functioning as an individual, and also discussed a family itself as being “well differentiated” with regard to parent-child relationships. Similarly, Bartle-Haring & Gregory (2003) state that “differentiation is a process by which the themes of separateness and connectedness are dynamically resolved in the individual, the family, or any other organization” (p. 361). However, in addition to describing the theory of differentiation of self as a “big picture” theory and that such theories “are often difficult to empirically validate”; Bartle-Haring et al. (2002) also state that “Bowen’s constructs can be operationalized” and that it is possible to make evident the validity of this theory (p. 583).

Therefore, a more agreeable and parsimonious measure of differentiation may aid future studies in this area. The lack of such a measure may be considered a limitation in this study.

Additionally, although child gender was available regarding the reports of parental psychological control in this study, child gender was not part of the analysis in this study. Future studies including child-gender would be important being that previous studies have found parental psychological control operant in specific parent-child gendered dyads, such as a father-daughter dyad (Barber, 1996; Nelson & Crick, 2002). Both Barber (1996) and Nelson and Crick (2002) found other dynamics that were specific to a certain gender-paired dyad.

As previously mentioned and explained, it is suggested for future research that differentiation of self may also want to be tested as a moderator between stress and parental psychological control rather than a mediator. Also as mentioned, testing chronic stress as the mediator between differentiation of self and parental psychological control may also prove to provide more important information. Considering the idea that differentiation of self usually develops until adolescence, and then becomes more static and difficult to change after that point (Kerr & Bowen, 1988), may make stress a more pertinent mediator or at least moderator. Stress would then be the variable that is most likely changing and altering relationships. Also, this study is cross sectional. Longitudinal research has been considered as offering more precision and as important when measuring change (Singer & Willett, 2003). Bartle-Haring et al. (2002) state that a longitudinal investigation may help clarify “what may be a reciprocal relationship between differentiation of self and stress” (p. 582). This may also help clarify the relationship between stress, differentiation, and parental psychological control. Some studies have been done longitudinally on the antecedents of parental psychological control. Barber (1996) found high levels of depression and anxiety as well as externalizing behaviors were in a reciprocal

relationship with parental psychological control. Therefore, it could be possible that adolescent characteristics and behaviors can illicit parental psychological control in addition to being an outcome of such parenting. A longitudinal study on the antecedents of parental psychological control found antecedents of parental psychological control to be harsh discipline in early parenting (as perceived by the adolescent) and a “mix” of proactive parenting practices and perceived problem behaviors by mothers (Pettit & Laird, 2002). However, no studies have been found to this point addressing the scope of this study in a longitudinal design.

Being that differentiation of self is considered as a theory explaining symptoms of psychological health vs. psychological distress, and that Belsky (1984) suggested that the psychological state of parents regarding resources and attributes can shape parenting behaviors; further research examining other states of psychological well being, such as depression, is also suggested. For example, parental depression has also been found to be significantly associated with “disruptive parenting” measured by “lower levels of positive parenting behaviors and higher levels of frustration in parent-child relationships” (Lee, Anderson, Horowitz, & August, 2009, p. 419). Another potential pathological symptom of Bowen’s theory of stress and differentiation of self is triangulation. Examining parents’ triangulating behaviors as antecedents of parental psychological control may not provide understanding of specific parent characteristics antecedent to psychological control, but it may lead to more information about family processes underlying this type of parenting behavior.

Conclusion

The purpose of this study was to contribute to existing literature on parental psychological control in examining possible antecedents such as parenting. More specifically, personal psychological characteristics of parents were examined as possible antecedents which

has been recommended by both researchers in the field of parental psychological control (Barber et al., 2002) and in other parenting literature (Belsky, 1984). This is important as parental psychological control has led to many internalized (e.g. Barber, 1994) and externalized (e.g. Pettit et al., 2001) problems for children and adolescents. This was accomplished as Bowen's theory of family systems, specifically differentiation of self, was analyzed as a mediator between parental chronic stress and parental psychological control.

It was found that chronic stress affects their levels of child-reported parental psychological control indirectly through their reported levels of differentiation of self. Mothers who were more emotionally cutoff and fathers who were more emotionally reactive, predicted higher levels of parental psychological control in their spouse. Control variables of parent age, parent education, and family income were also included for possible effects in this study. However, other than with parental education, no significant, salient, or interpretable effects from these variables were found.

While this study has limitations that need to be given adequate recognition, interpretations of findings incorporating triangulation in light of attachment literature and have also been presented. Interactions between family members, and perhaps more specifically a married couple, can create system dynamics that should be taken into account when doing research or clinical work in this area. Differentiation of self is also a construct that should be given attention in both academic and clinical work, specifically regarding measure development. Measures in this study had only partial or no measurement invariance could affect the validity of the interpretations of structural findings. Nevertheless, the findings of this study have added to the literature examining antecedents of parental psychological control and have both academic and clinical implications.

References

- Allison, M., & Sabatelli, R. (1988). Differentiation and individuation as mediators of identity and intimacy in adolescence. *Journal of Adolescent Research*, 3(1), 1-16.
- Anderson, S., & Sabatelli, R. (1990). Differentiating differentiation and individuation: Conceptual and operation challenges. *American Journal of Family Therapy*, 18(1), 32-50.
- Arbuckle, J. L. (1995-2008). *Amos 17.0 User's Guide*. Crawfordville, FL: Amos Development Corporation. Retrieved February 11, 2010, from <http://www.jou.ufl.edu/research/lab/pdf/Amos-17.0-User%27s-Guide.pdf>.
- Barber, B. (1996). Parental psychological control: Revisiting a neglected construct. *Child Development*, 67(6), 3296-3319.
- Barber, B. (2002). Reintroducing parental psychological control. *Intrusive parenting: How psychological control affects children and adolescents* (pp. 3-13). Washington, DC US: American Psychological Association.
- Barber, B., Bean, R., & Erickson, L. (2002). Expanding the study and understanding of psychological control. *Intrusive parenting: How psychological control affects children and adolescents* (pp. 263-289). Washington, DC US: American Psychological Association.
- Barber, B., & Harmon, E. (2002). Violating the self: Parental psychological control of children and adolescents. *Intrusive parenting: How psychological control affects children and adolescents* (pp. 15-52). Washington, DC US: American Psychological Association.
- Barber, B., Olsen, J., & Shagle, S. (1994). Associations between parental psychological and behavioral control and youth internalized and externalized behaviors. *Child Development*, 65(4), 1120-1136.

- Baron, R., & Kenny, D. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.
- Bartholomew, K., & Horowitz, L. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226-244.
- Bartle-Haring, S., & Gregory, P. (2003). Relationship between Differentiation of Self and the stress and distress associated with predictive cancer genetic counseling and testing: Preliminary Evidence. *Families, Systems, & Health, 21*(4), 357-381.
- Bartle-Haring, S., Rosen, K., & Stith, S. (2002). Emotional reactivity and psychological distress. *Journal of Adolescent Research, 17*(6), 568-585.
- Bayer, J., Sanson, A., & Hemphill, S. (2006). Parent influences on early childhood internalizing difficulties. *Journal of Applied Developmental Psychology, 27*(6-), 542-559.
- Bean, R., Bush, K., McKenry, P., & Wilson, S. (2003, September). The impact of parental support, behavioral control, and psychological control on the academic achievement and self-esteem of African American and European American adolescents. *Journal of Adolescent Research, 18*(5), 523-541.
- Belsky, J. (1984, February). The determinants of parenting: A process model. *Child Development, 55*(1), 83-96.
- Bentler, P. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*(2), 238-246.
- Bentler, P., & Bonett, D. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin, 88*(3), 588-606.
- Bollen, K. A. (1989). *Structural equations with latent variables*. New York, NY: John Wiley

- Bonds, D., Gondoli, D., Sturge-Apple, M., & Salem, L. (2002). Parenting stress as a mediator of the relation between parenting support and optimal parenting. *Parenting: Science and Practice, 2*(4), 409-435.
- Bor, W., & Sanders, M. (2004). Correlates of self-reported coercive parenting of preschool-aged children at high risk for the development of conduct problems. *Australian and New Zealand Journal of Psychiatry, 38*(9), 738-745.
- Brassard, A., Shaver, P. R. & Lussier, Y. (2007) Attachment, sexual experience, and sexual pressure in romantic relationships: A dyadic approach. *Personal Relationships, 14*(3), 475-493.
- Browne, M., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological Methods & Research, 21*(2), 230.
- Butler, M., & Bird, M. (2000, April). Narrative and interactional process for preventing harmful struggle in therapy: An integrative empirical model. *Journal of Marital & Family Therapy, 26*(2), 123-142.
- Carmines, E. G., & McIver, J. P. (1981). Analyzing models with unobserved variables. In G.W. Bohrnstedt & E. F. Borgatta (Eds.), *Social Measurement: Current Issues*. Beverly Hills: Sage.
- Chen, B., & Li, D. (2009). Avoidant strategy in insecure females. *Behavioral and Brain Sciences, 32*(1), 25-26.
- Conley, C. S., Caldwell, M.S., Flynn, M., Dupre, A. J., & Rudolph, K.D. (2004). Parenting and mental health. In M. Hoghughi & N. Long (Eds.), *Handbook of Parenting: Theory and Research for Practice* (276-295). London; Thousand Oaks, CA; New Delhi: SAGE Publications Ltd.

- Crater, E. (2004). Relationships between parental psychological control, parental factors, and adolescent behaviors as reported by mothers. *Dissertation Abstracts International*, 65, 2090.
- Crick, N., & Grotpeter, J. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development*, 66(3), 710-722.
- Crnic, K., & Greenberg, M. (1990). Minor parenting stresses with young children. *Child Development*, 61(5), 1628-1637.
- Del Giudice, M. (2008). Sex-biased ratio of avoidant/ambivalent attachment in middle childhood. *British Journal of Developmental Psychology*, 26(3), 369-379.
- Del Giudice, M. (2009). Sex, attachment, and the development of reproductive strategies. *Behavioral and Brain Sciences*, 32(1), 1-21.
- Enns, M., Cox, B., & Clara, I. (2002). Parental bonding and adult psychopathology: results from the US National Comorbidity Survey. *Psychological Medicine*, 32(6), 997-1008.
- Feeney, J., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology*, 58(2), 281-291.
- Finnegan, R., & Hodges, E. (1996). Preoccupied and avoidant coping during middle childhood. *Child Development*, 67(4), 1318-1328.
- Friedman, N. (1976). From the experiential in therapy to experiential psychotherapy: A history. *Psychotherapy: Theory, Research & Practice*, 13(3), 236-243.
- Garbarino, J., Gaa, J., Swank, P., McPherson, R., & Gratch, L. (1995, September). The relation of individuation and psychosocial development. *Journal of Family Psychology*, 9(3), 311-318.
- Gavazzi, S., & Sabatelli, R. (1990). Family system dynamics, the individuation process, and

- psychosocial development. *Journal of Adolescent Research*, 5(4), 500-519.
- Gentzler, A., & Kerns, K. (2004). Associations between insecure attachment and sexual experiences. *Personal Relationships*, 11(2), 249-265.
- Glebova, T. (2003, April). An investigation of the association between Russian mothers' differentiation of self and the mother-daughter relationship during their daughters' adolescence.
- Granot, D., & Mayseless, O. (2001). Attachment security and adjustment to school in middle childhood. *International Journal of Behavioral Development*, 25(6), 530-541.
- Grulke, N., Bailer, H., Blaser, G., Geyer, M., Schmutzer, G., Brähler, E., et al. (2006). Worrying about one's job, family, financial situation and health--Results of a population representative study. *GMS Psycho-Social-Medicine*, 31-11.
- Hall, M., Buysse, D., Nofzinger, E., Reynolds, C., Thompson, W., Mazumdar, S., et al. (2008). Financial strain is a significant correlate of sleep continuity disturbances in late-life. *Biological Psychology*, 77(2), 217-222.
- Hauser, S. (1984). Familial contexts of adolescent ego development. *Child Development*, 55(1), 195-213.
- Hauser, S., Houlihan, J., Powers, S., & Jacobson, A. (1991). Adolescent ego development within The family: Family styles and family sequences. *International Journal of Behavioral Development*, 14(2), 165-193.
- Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, 52(3), 511-524.
- Heider, D., Matschinger, H., Bernert, S., Alonso, J., Brugha, T., Bruffaerts, R., et al. (2008). Adverse parenting as a risk factor in the occurrence of anxiety disorders. *Social*

- Psychiatry and Psychiatric Epidemiology*, 43(4), 266-272.
- Hill, C., Stein, J., Keenan, K., & Wakschlag, L. (2006). Mother's childrearing history and current parenting: Patterns of association and the moderating role of current life stress. *Journal of Clinical Child and Adolescent Psychology*, 35(3), 412-419.
- Hoyle, R., & Panter, A. (1995). Writing about structural equation models. *Structural equation modeling: Concepts, issues, and applications* (pp. 158-176). Thousand Oaks, CA US: Sage Publications, Inc. Retrieved from PsycINFO database.
- Hu, L., & Bentler, P. (1995). Evaluating model fit. *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). Thousand Oaks, CA US: Sage Publications, Inc.
- Jang, S., Smith, S., & Levine, T. (2002). To stay or to leave: the role of attachment styles in communication patterns and potential termination of romantic relationships following discovery of deception. *Communication Monographs*, 69(3), 236-252.
- Kaplan, H., Johnson, R., & Bailey, C. (1987). Deviant peers and deviant behavior: Further elaboration of a model. *Social Psychology Quarterly*, 50(3), 277-284.
- Kerns, K., Abraham, M., Schlegelmilch, A., & Morgan, T. (2007). Mother - child attachment in later middle childhood: Assessment approaches and associations with mood and emotion regulation. *Attachment & Human Development*, 9(1), 33-53.
- Kerr, M. E. (1988, Sept.). Chronic Anxiety and Defining a Self. *The Atlantic Monthly*, 262.3, 35-58.
- Kerr, M. E., & Bowen, M. (1988). *Family Evaluation*. Ontario, CA: Penguin Books Canada Ltd.
- Knauth, D., Skowron, E., & Escobar, M. (2006). Effect of differentiation of self on adolescent risk behavior. *Nursing Research*, 55(5), 336-345. Retrieved from CINAHL database.
- Kuppens, S., Grietens, H., Onghena, P., & Michiels, D. (2009). Relations between parental

- psychological control and childhood relational aggression: Reciprocal in nature?. *Journal of Clinical Child and Adolescent Psychology*, 38(1), 117-131.
- Lee, C., Anderson, J., Horowitz, J., & August, G. (2009). Family income and parenting: The role of parental depression and social support. *Family Relations*, 58(4), 417-430.
- Leonardi, A., & Kiosseoglou, G. (2002, June). Parental, psychological control and attachment in late adolescents and young adults. *Psychological Reports*, 90(3), 1015-1030.
- Lovejoy, M., Graczyk, P., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: a meta-analytic review. *Clinical Psychology Review*, 20(5), 561-592.
- Markiewicz, D. (2003). Associations between parenting style and attachment to mother in middle childhood and adolescence. *International Journal of Behavioral Development*, 27(2), 153-164.
- Miller, R., Anderson, S., & Keala, D. (2004, October). Is Bowen theory valid?: A review of basic research. *Journal of Marital & Family Therapy*, 30(4), 453-466.
- Murdock, N., & Gore, P. (2004, September). Stress, coping, and differentiation of self: A test of Bowen theory. *Contemporary Family Therapy: An International Journal*, 26(3), 319-335.
- Nelson, D., & Crick, N. (2002). Parental psychological control: Implications for childhood physical and relational aggression. *Intrusive parenting: How psychological control affects children and adolescents* (pp. 161-189). Washington, DC US: American Psychological Association.
- Nichols, M. P., & Schwartz, R. C. (2008). *Family Therapy Concepts and Methods* (8th ed.). Boston, MA: Pearson Education, Inc. - Allyn and Bacon.
- Padilla-Walker, L.M., Harper, J. M., & Bean, R. A. (In Process). Pathways to parental knowledge: The role of family process and family structure. *Journal not yet known*.

- Peleg-Popko, O. (2002, June). Bowen Theory: A study of differentiation of self, social anxiety, and physiological symptoms. *Contemporary Family Therapy: An International Journal*, 24(2), 355-369.
- Pettit, G., & Laird, R. (2002). Psychological control and monitoring in early adolescence: The role of parental involvement and earlier child adjustment. *Intrusive parenting: How psychological control affects children and adolescents* (pp. 97-123). Washington, DC US: American Psychological Association.
- Pettit, G., Laird, R., Dodge, K., Bates, J., & Criss, M. (2001, March). Antecedents and behavior-problem outcomes of parental monitoring and psychological control in early adolescence. *Child Development*, 72(2), 583-598.
- Quittner, A., Glueckauf, R., & Jackson, D. (1990). Chronic parenting stress: Moderating versus mediating effects of social support. *Journal of Personality and Social Psychology*, 59(6), 1266-1278.
- Radke-Yarrow, M., & Nottelmann, E. (1993). Affective interactions of depressed and nondepressed mothers and their children. *Journal of Abnormal Child Psychology*, 21(6), 683.
- Raviv, T. (2003). Parent and adolescent responses to economic and life stress. 1.
- Robinson, C., & And, O. (1996). Psychometric support for a new measure of authoritative, authoritarian, and permissive parenting practices: Cross-cultural connections. Retrieved from ERIC database.
- Rubin, K., & Mills, R. (1991). Conceptualizing developmental pathways to internalizing disorders in childhood. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, 23(3), 300-317.

- Satir, V., Banmen, J., Gerber, J., & Gomori, M. (1991). *The Satir model: Family therapy and beyond*. Palo Alto, Calif: Science & Behavior Bks.
- Schmitt, D. (2003). Are men universally more dismissing than women? Gender differences in romantic attachment across 62 cultural regions. *Personal Relationships, 10*(3), 307-331.
- Shi, L. (2003). The association between adult attachment styles and conflict resolution in romantic relationships. *The American Journal of Family Therapy, 31*(3), 143-157.
- Singer, J., & Willett, J. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY US: Oxford University Press.
- Skowron, E. (2005). Differentiation of Self and child abuse potential in young adulthood. *The Family Journal, 13*(3), 281-290.
- Skowron, E. A. & Friedlander, M. L. (1998). The differentiation of self inventory: Development and initial validation. *Journal of Counseling Psychology, 45*, 235-246.
- Skowron, E., Kozlowski, J., & Pincus, A. (2010). Differentiation, self–other representations, and rupture–repair processes: Predicting child maltreatment risk. *Journal of Counseling Psychology, 57*(3), 304-316.
- Skowron, E., Stanley, K., & Shapiro, M. (2009). A longitudinal perspective on differentiation of self, interpersonal and psychological well-being in young adulthood. *Contemporary Family Therapy, 31*(1), 3-18.
- Skowron, E., Wester, S., & Azen, R. (2004). Differentiation of Self mediates college stress and adjustment. *Journal of Counseling & Development, 82*(1), 69.
- Soenens, B., Elliot, A., Goossens, L., Vansteenkiste, M., Luyten, P., & Duriez, B. (2005, September). The intergenerational transmission of perfectionism: Parents' psychological control as an intervening variable. *Journal of Family Psychology, 19*(3), 358-366.

- Soenens, B., Vansteenkiste, M., Smits, I., Lowet, K., & Goossens, L. (2007). The role of intrusive parenting in the relationship between peer management strategies and peer affiliation. *Journal of Applied Developmental Psychology, 28*(3), 239-249.
- Smetana, J., & Daddis, C. (2002, March). Domain-specific antecedents of parental psychological control and monitoring: The role of parenting beliefs and practices. *Child Development, 73*(2), 563-580.
- Steptoe, A., Brydon, L., & Kunz-Ebrecht, S. (2005). Changes in financial strain over three years, Ambulatory Blood Pressure, and Cortisol Responses to Awakening. *Psychosomatic Medicine, 67*(2), 281-287.
- Stierlin, H. (1974). *Separating parents and adolescents: A perspective on running away, schizophrenia, and waywardness*. Oxford England: Quadrangle/New York Times Book.
- Stierlin, H., Levi, L., & Savard, R. (1971). Parental perceptions of separating children. *Family Process, 10*(4), 411-427.
- Torrente, G., & Vazsonyi, A. (2008). The salience of the family in antisocial and delinquent behaviors among Spanish adolescents. *Journal of Genetic Psychology, 169*(2), 187-197.
- Umberson, D., Williams, K., Powers, D. A., Liu, H., & Needham, B. (2005). Stress in childhood and adulthood: Effects on marital quality over time. *Journal of Marriage and Family, 67*, 1332-1347.
- van Bakel, H., & Riksen-Walraven, J. (2002). Parenting and Development of One-Year-Olds: Links with Parental, Contextual, and Child Characteristics. *Child Development, 73*(1), 256.
- Vandenberg, R., & Lance, C. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research.

Organizational Research Methods, 3(1), 4-69.

Wei, M., Vogel, D., Ku, T., & Zakalik, R. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology*, 52(1), 14-24.

Williamson, I., Sandage, S., & Lee, R. (2007). How social connectedness affects guilt and shame: Mediation by hope and differentiation of self. *Personality and Individual Differences*, 43(8), 2159-2170.

Tables

Table 1			
<i>Study variables' means and standard deviations, M (SD)</i>			
Study Variables	Maternal (n=323)	Paternal (n=323)	Independent Sample T-Test
PC	1.584 (.646)	1.555 (.609)	NS (.561)
CS	1.599 (.919)	1.58 (.87)	NS (.784)
Differentiation of Self			
ER	3.577 (1.089)	3.173 (1.02)	***
EC	1.991 (.896)	2.135 (.908)	.042
Age	43.486 (5.268)	45.285 (5.944)	***
Education	4.721 (1.386)	4.813 (1.433)	.409
Family Income (Monthly)	7,070.73 (5,415.22)		

Notes: ***p < .001

Table 2

Bivariate Correlations Among Continuous Study Variables for Mothers and Fathers, and Family Income

Study Variables	MPC	FPC	MCS	FCS	MER	FER	MEC	FEC	MA	FA	ME	PE	FI
Maternal Psych Control (MPC)		.814**	.186**	.147**	.053	.004	.131*	.108	-.074	-.055	-.123*	-.156**	.000
Paternal Psych Control (PPC)	.814**		.168**	.189**	.057	.051	.150**	.097	-.097	-.081	-.113*	-.145**	-.006
Maternal Chronic Stress (MCS)	.186**	.168**		.413**	.228**	.169**	.181**	.163**	-.190**	-.137*	-.118*	-.187**	-.117*
Paternal Chronic Stress (PCS)	.147**	.189**	.413**		.136*	.280**	.134*	.271**	-.179**	-.168**	-.068	-.075	-.064
Maternal Emot. Reactivity (MER)	.053	.057	.228**	.136*		.128*	.361**	.177**	.021	-.020	.001	.064	-.047
Paternal Emot. Reactivity (PER)	.004	.051	.169**	.280**	.128*		.189**	.459**	.030	.034	.120*	.139*	.001
Maternal Emot. Cutoff (MEC)	.131*	.150**	.181**	.134*	.361**	.189**		.210**	-.007	.019	-.027	-.053	-.092
Paternal Emot. Cutoff (PEC)	.108	.097	.163**	.271**	.177**	.459**	.210**		.096	.058	-.003	-.024	-.106
Maternal Age (MA)	-.074	-.097	-.190**	-.179**	.021	.030	-.007	.096		.732**	.318**	.223**	.182**
Paternal Age (FA)	-.055	-.081	-.137*	-.168**	-.020	.034	.019	.058	.732**		.250**	.120*	.130*
Maternal Education (ME)	-.123*	-.113*	-.118*	-.068	.001	.120*	-.027	-.003	.318**	.250**		.456**	.246**
Paternal Education (PE)	-.156**	-.145**	-.187**	-.075	.064	.139*	-.053	-.024	.223**	.120*	.456**		.273**
Family Income (FI)	.000	-.006	-.117*	-.064	-.047	.001	-.092	-.106	.182**	.130*	.246**	.273**	

Notes: **p < .01, two-tailed. *p < .05, two-tailed.

Figures

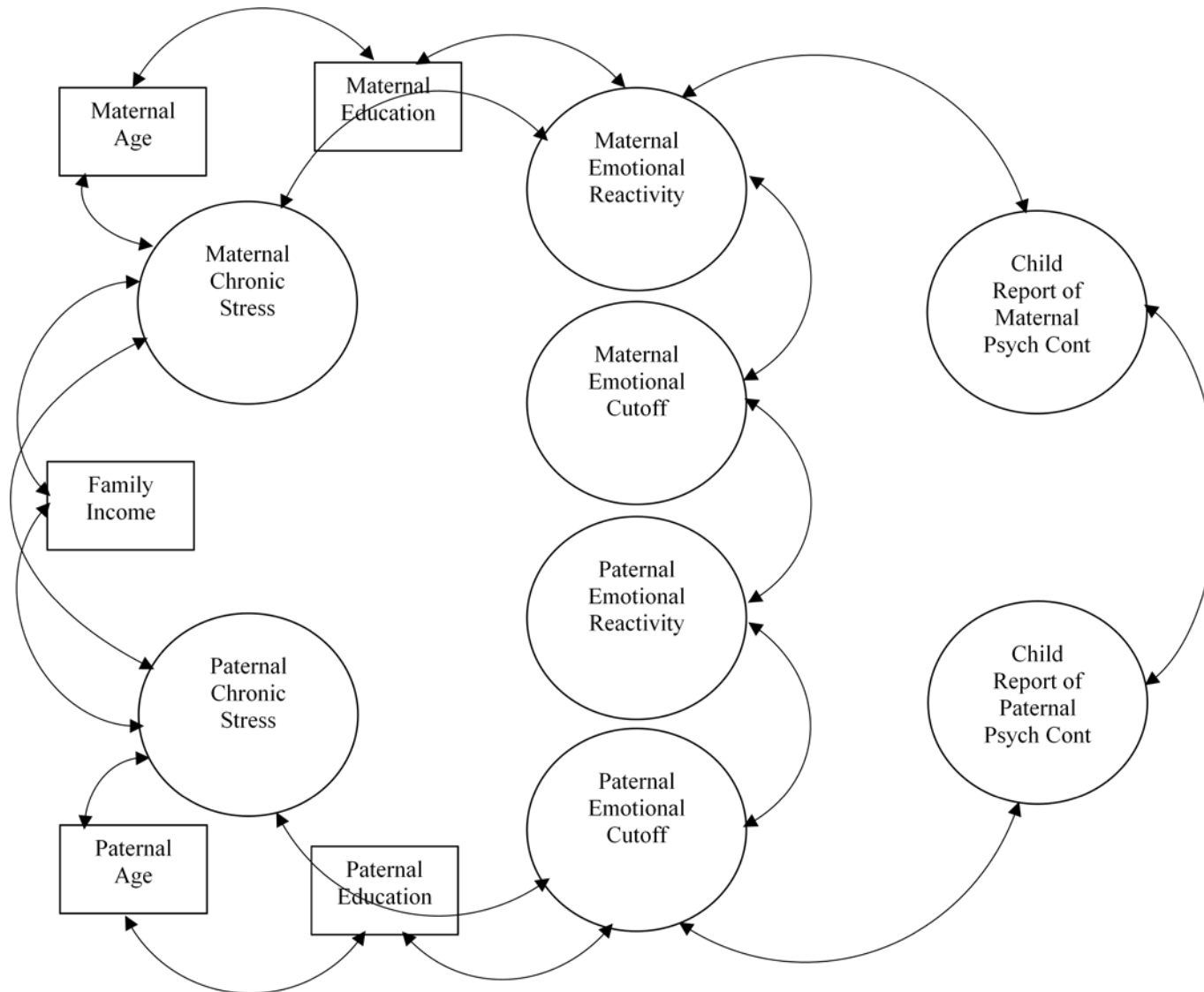


Figure 1. Full measurement model. Item indicators for latent variables and respective error variance correlations are not depicted in figure.

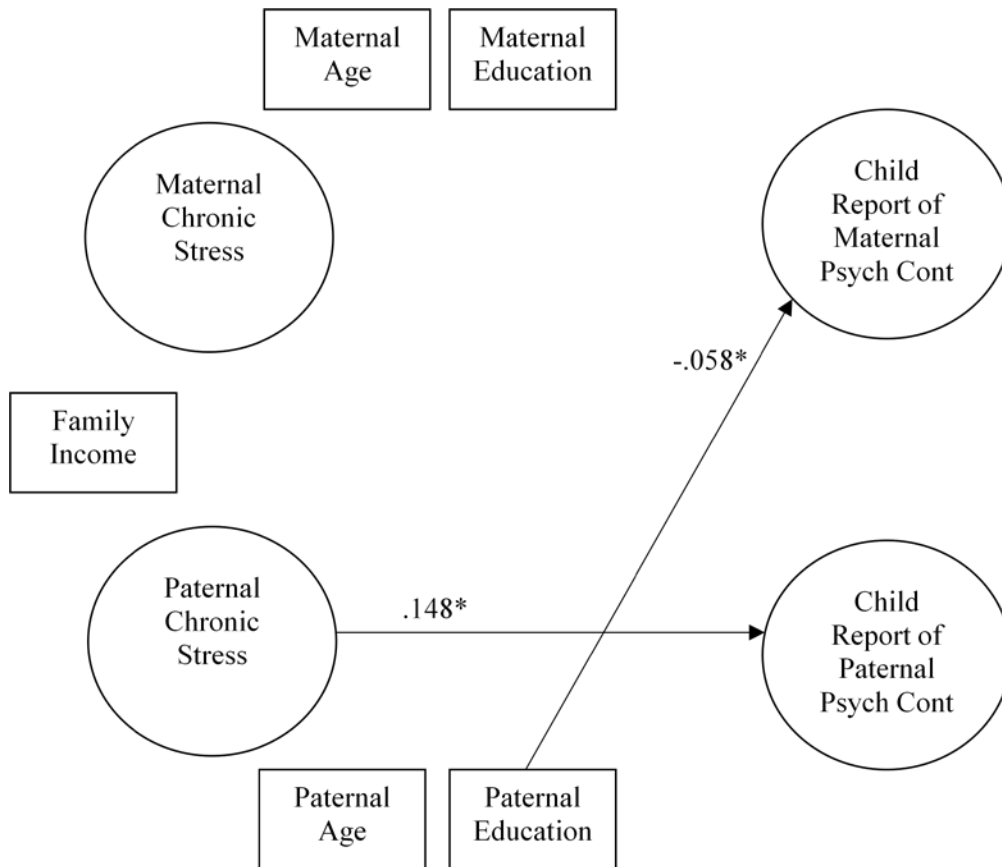


Figure 2. Structural model with chronic stress as the independent variable on the dependent variable psychological control.

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

Note: Non-significant Paths have been deleted

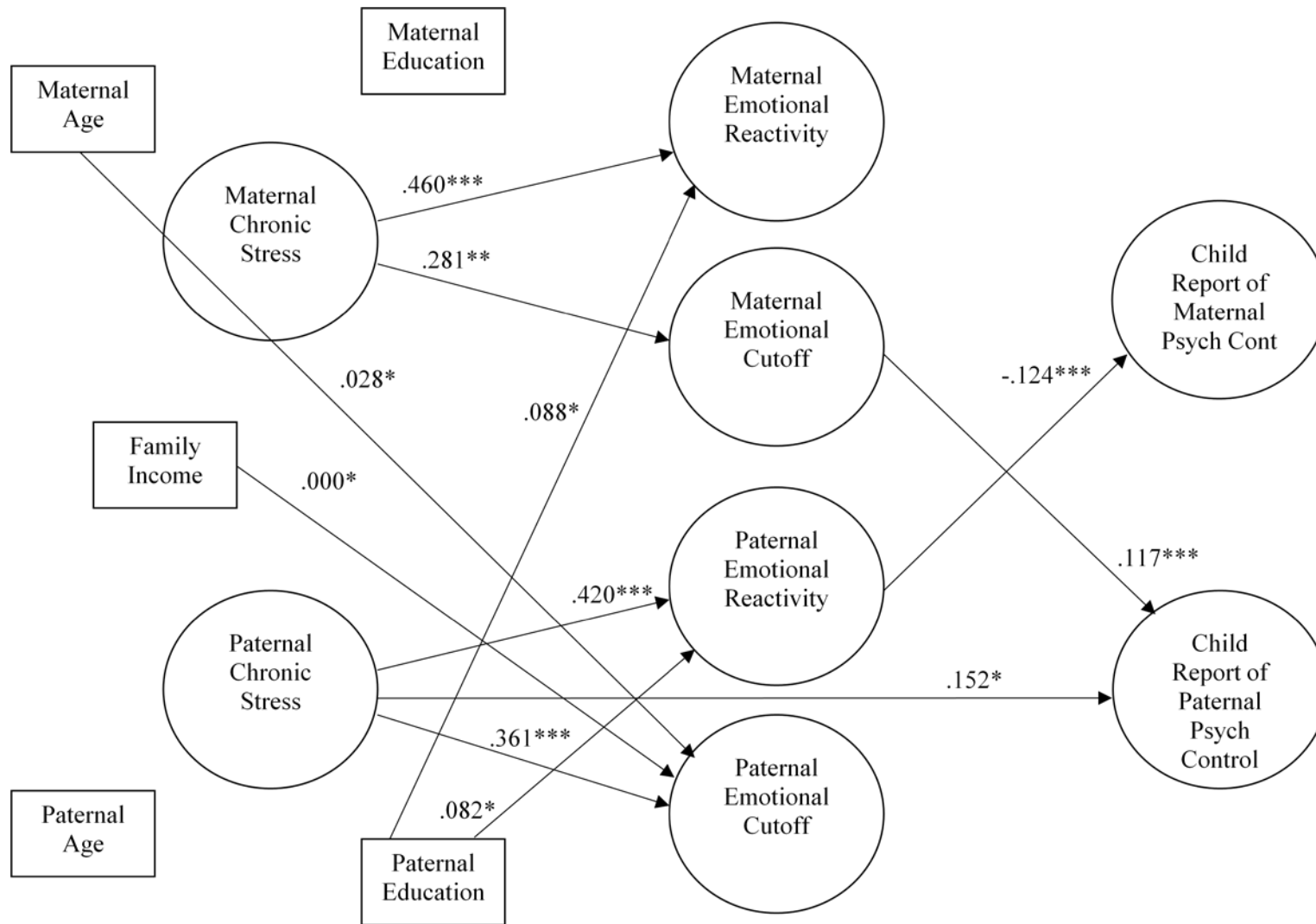


Figure 3. Structural model with all study variables including control variables.

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

Note: Non-significant paths have been removed from the model